Best practices and performance of auto-enrolment mechanisms for pension savings

Final Report

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Abstract

Automatic enrolment (also referred to as auto-enrolment) is a mechanism that encourages pension saving by enrolling individuals into a pension scheme unless they actively choose to opt-out. This study identifies and evaluates 32 best practices for the design of auto-enrolment pension schemes, informed by an in-depth qualitative and quantitative assessment of pension schemes in selected EU and non-EU countries and consultations with pension experts and stakeholders. The best practices cover the entire saver's journey, including the initial decision to save through a pension, fund choice, growing pension entitlements and post-retirement choices. In addition, best practices are presented on the implementation of an auto-enrolment pension scheme. Finally, a scoreboard is presented that assesses each best practice against key evaluation criteria, including its relative importance in the functioning of an auto-enrolment pension scheme and its impact on performance measures, namely participation, savings and investment returns.

Résumé

L'adhésion automatique est un mécanisme qui encourage l'épargne-retraite en inscrivant les individus à un régime de retraite à moins qu'ils ne choisissent activement de s'en retirer. Cette étude identifie et évalue 32 meilleures pratiques pour la conception de régimes de retraite à adhésion automatique, fondées sur une évaluation qualitative et quantitative approfondie des régimes de retraite dans certains pays de l'UE et hors de l'UE et des consultations avec des experts et des parties prenantes en matière de retraite. Les meilleures pratiques couvrent l'ensemble du parcours de l'épargnant, y compris la décision initiale d'épargner par le biais d'une pension, le choix du fonds, l'augmentation des droits à pension et les choix après la retraite. En outre, les meilleures pratiques sont présentées pour la mise en place d'un régime de retraite à adhésion automatique. Enfin, un tableau de bord est présenté qui évalue chaque meilleure pratique par rapport à des critères d'évaluation clés, y compris son importance relative dans le fonctionnement d'un régime de retraite à adhésion automatique et son impact sur des mesures de performance, à savoir la participation, l'épargne et les retours sur investissement.

Glossary

Term	Definition
Aggregate replacement ratio	The aggregate replacement ratio is the value of the gross median individual pension income of the population aged 65–74, relative to gross median individual earnings from work of the population aged 50–59, excluding other social benefits.
Annuity	A form of financial contract which guarantees a fixed or variable payment of income benefit for the life of a person (the annuitant) or for a specified period of time.
Automatic enrolment (AE)	Automatic enrolment involves automatically signing individuals up to a pension plan while giving them the chance to opt out. The opt-out may be limited to specified timeframes and conditions.
Automatic enrolment mechanism	The process by which automatic enrolment operates, for example, the enrolment process, default contribution rates and default plan investment strategies.
Beneficiary	An individual who is entitled to a benefit (including the plan member and their dependants, if the plan provides benefits for dependants)
Contribution	Those monies transferred into a pension savings vehicle. Contributions can be from the employer, employee, or government.
Contribution-neutral	Contribution-neutral schemes are funded through a partial reallocation of social security contributions into a funded pension plan without additional contributions being made by or on behalf of the beneficiary
Collective bargaining agreements	A contract which sets out the terms and conditions of employment and usually covers a specific employer or a specific sector of the economy. Collective bargaining agreements can include pension requirements.
Decumulation	The process of converting pensions savings into retirement income.
Defined benefit (DB) pension plans	A defined benefit pension plan (DB) sets out the specific benefit level that will be paid to the beneficiary upon retirement. In the case of occupational pension plans, this calculation generally takes into account factors such as the number of years an employee has worked and their salary (career average or during a defined period, such as the last years or best-paid years), which then dictates the pension and/or lump sum that will be paid on retirement. The investment risk and the longevity risks are borne by the plan sponsor, for occupational pension plans this will be the employer.
Defined contribution (DC) pension plans	A defined contribution (DC) pension plan uses contributions (from the employee, employer and/or government) to buy assets with the purpose of financing future retirement benefits. The benefits received depend on the value of contributions paid and the value of the assets upon retirement. The beneficiary bears the investment risk in the case of DC plans, (though in some cases the plan may provide a minimum return guarantee).
Financial literacy	Having the awareness, knowledge, skills, attitude, and behaviour necessary to make sound financial decisions and achieve financial wellbeing.
Funded pension plans	Statutory, occupational, or personal pension plans which accumulate dedicated assets to cover the plan's liabilities.
Net replacement rate	The ratio of the individuals net pension entitlement to the net pre-retirement earnings, taking into account personal income taxes and social security contributions paid by workers and pensioners.
Occupational pension	A pension plan where access is linked to an employment or professional relationship between the plan member and the entity that establishes the plan (the plan sponsor).

Term	Definition
Pay-As-You-Go (PAYG)	Pension schemes where current contributions and/or tax revenue finance current pension expenditure
Pension assets	Assets for the exclusive purpose of financing pension plan benefits. These assets may have been purchased with contributions or be set aside by plan sponsors.
Pension fund	Pension fund is the pool of assets which are bought as a result of contributions to the pension plan, or which are set aside by the plan sponsor. Plan members/beneficiaries have a contractual claim on the assets held within the fund. Pension funds can be managed as a separate legal entity (such as a trust, foundation, or corporate entity), by a dedicated provider (pension fund management company) or by a specific financial institution (insurance contracts).
Pension plan	A pension plan refers to a contract put in place which helps individuals save for retirement. A contract can be established between an employer and employee in the case of occupational pension schemes or an individual and plan provider in the case of personal pension schemes.
Pension scheme	A pension scheme is the type of pension plans available to individuals. Public pension schemes are those plans administered by governments. Occupational pension schemes are plans whereby access is linked to employment. Personal pension schemes are private schemes set up by plan providers, typically financial institutions, for individuals irrespective of their employment status.
Pension system	Pension system refers to the various pension schemes available which enable individuals to save for retirement. This includes statutory, occupational, and personal pension schemes.
Personal pension	A pension plan entered into by an individual and administered by a pension fund or a financial institution acting as pension provider. Individuals independently purchase and select material aspects of the arrangements. Participation in personal pension plans is not linked to an individual's employment, but the employer can in some cases make additional contributions into the employee's personal pension plan.
Replacement rate	Income replacement provided by the pension system, measured by the ratio of an individual's pension entitlement to their pre-retirement earnings or by the ratio of pension income to work income in the national economy.
Supplementary pension schemes	Pension schemes, which can be accessed on the basis of employment relationship (occupational pension schemes) or an individual pension saving contract (personal pension schemes), generally providing additional retirement income to the statutory pension schemes.
Statutory funded pension schemes	Pension schemes, which are accessed on the basis of legislation and buy assets to finance future retirement benefits. Statutory funded schemes are typically administered by authorised private managers and may be contribution-neutral or involve additional contributions.
Statutory pension scheme	Pension schemes administered by government whereby access is based on legislation.

1. Introduction

An ageing society and higher life expectancy in the European Union (EU) have raised concerns over the adequacy and financial sustainability of existing pension systems to deliver a retirement income that would ensure decent living standards and prevent old-age poverty. Moreover, the economic and financial crisis in 2007-08 and subsequent policy response exacerbated social inequality across the EU. In 2015, the Juncker Commission acknowledged the need for upward social convergence between and within Member States and proposed a European Pillar of Social Rights (EPSR). The EPSR initiative was launched by the European Commission (EC) in 2017 with the overarching objective to deliver new and improve existing social standards for people across the EU. Of the twenty principles agreed by all Member States, there was a commitment and responsibility (at both Union and Member State level) to ensure[1]:

- *'Workers and the self-employed in retirement have the right to a pension commensurate to their contributions and ensuring an adequate income. Women and men shall have equal opportunities to acquire pension rights', and that*
- *'Everyone in old age has the right to resources that ensure living in dignity.'*

In the 2018 edition of the triennial Pension Adequacy Report,[2] the Commission stressed the role of well-designed supplementary pension schemes, in addition to statutory pensions, to help achieve adequate pension outcomes. It also recognised automatic enrolment (also referred to as auto-enrolment) (AE) as a potential policy tool that may be used in combination with others (e.g., tax and financial incentives) to improve the coverage of supplementary pensions. AE is a mechanism that automatically enrols individuals into a retirement savings scheme unless they actively opt-out. Such schemes, depending on their design, may encourage regular savings in cost-effective pension products that re-invest in a diversified portfolio of assets.

The purpose of this study is to set out the features and best practices of different auto-enrolment mechanisms into pension schemes. It also compares such practices across EU and non-EU jurisdictions and provides preliminary empirical evidence of the impact of auto-enrolment on pension adequacy, especially in countries where it is well established. The study contributes to one of the key objectives of the Commission's Capital Markets Union (CMU) programme of improving the diversification of households' financial assets and pension adequacy through capital markets. The Final Report of the High Level Forum on the Capital Markets Union, published in June 2020, called for the Commission to:

'…identify best practices in automatically enrolling workers into occupational pensions with a view to developing a blueprint to provide principles and proposals on good occupational schemes and how engagement and guidance can be harnessed to secure adequate retirement incomes for EU citizens in the future, which Member States can tailor to their particular pension landscape'.[3]

Subsequently, in September 2020, the CMU Action Plan stated that:

'…people should be encouraged to supplement public pensions with life-long saving and investment, including through more active participation in occupational pension schemes. This will enable them to benefit from more adequate retirement income and make it possible to finance the long-term growth of the real economy, as well as its green and digital transition'.[4]

In support of this, the European Commission would launch a study analysing auto-enrolment practices and other potential solutions in order to identify best practices in auto-enrolment.[5]

[1] European Commission (2017), 'European Pillar of Social Rights - booklet', Proclamation of the European Pillar of Social Rights, Brussels, 16 November 2017.

[2] European Commission and the Social Protection Committee (2018), 'Pension Adequacy Report 2018'.

[3] European Commission (2020), 'A New Vision for Europe's Capital Markets', Final Report of the High Level Forum on the Capital Markets Union. Available at https://ec.europa.eu/info/sites/info/files/business_economy_euro/growth_and_investment/documents/200610-cmu-high-level-forum-final-report_en.pdf.

The report is organised as follows:

- Chapter 2 outlines the taxonomy of auto-enrolment schemes and other policy approaches in the scope of this study;
- Chapter 3 provides a literature review on the pre-conditions and pre-requisites for the introduction of AE schemes and the costs associated with them;
- Chapter 4 discusses the key features of AE schemes and alternative schemes with a cross-country comparison;
- Chapter 5 presents four case studies, and a further two short case studies, of the experiences that countries have had in introducing AE schemes;
- Chapter 6 presents findings from empirical analyses assessing the impact of AE;
- Chapter 7 provides a list of best practices for AE schemes and a scoreboard for these best practices;
- Chapter 8 presents the study's conclusions;
- Chapter 9 provides a bibliography;
- Annex 1 provides details on the methodology used and justification for the approaches used in the study;
- Annex 2 outlines the countries considered within the scope of the study;
- Annex 3 provides fiches for selected countries within the scope of the study;
- Annex 4 presents a list of stakeholders that have been consulted, the main conclusions from the interviews and country questionnaires that have been used; and,
- Annex 5 is a technical annex supporting the empirical analysis and scoreboard strategy.

2. TAXONOMY OF AUTO-ENROLMENT MECHANISMS AND ALTERNATIVE POLICY APPROACHES

A taxonomy of auto-enrolment mechanisms and alternative policy approaches to boost participation and savings in funded pension schemes is described below. In summary, the main difference between the various types of pension schemes is whether participation of eligible persons is compulsory, voluntary or on an auto-enrolment basis. Among the two main types of auto-enrolment schemes, the main distinguishing feature is whether it is mandatory for firms to grant access to a scheme to their employees or if it is voluntary. The contribution models (that is, supplementary contributions or the reallocation of social security contributions) and scope of schemes also feature in the taxonomy. Each of the abovementioned features is defined below, followed by a description of the various types of schemes and a list of the countries with each type of scheme.

- **Participation conditions**: Participation relates to whether participation in a pension scheme is compulsory, opt-out or voluntary (opt-in) on the part of employees and self-employed people. Auto-enrolment mechanisms require employees to make the active choice to opt-out of pension plans which, due *inter alia* to inertia, may lead to greater participation than approaches based on voluntary participation. Policy approaches that make participation compulsory obviously have the highest participation rates all else equal.
- **Access provision**: For occupational schemes, provision is concerned with whether auto-enrolment and alternative policy approaches require employers to provide access to pension schemes or whether access is made on a voluntary basis. The presence of a requirement for employers to provide pension scheme access is likely to have an important bearing on participation in pension schemes.
- **Contribution models:** Contributions affect savings in pension schemes and there are two broad policy approaches observed. Firstly, there are policy approaches that involve supplementary contributions made by some combination of employer and employee contributions, and possibly the state, and secondly there are policy approaches that involve the partial reallocation of social security contributions to funded pension schemes but involve no supplementary contributions. The two approaches can be combined, i.e. reallocation of social security contributions complemented by some additional contributions.
- **Scope**: Scope relates to the groups of persons that are covered by auto-enrolment or alternative policy approaches. At one end of the spectrum are state-mandated pension schemes covering all employees and self-employed people and, moving towards the other end of the spectrum, there are occupational schemes covering all employees, certain types of employees (for example, based on length of service or union membership status) or the employees of particular sectors. Clearly, the scope of auto-enrolment or alternative policy approaches has a large potential impact on coverage in pension schemes.

The features abovementioned help to develop a typology of auto-enrolment and alternative policy approaches, as follows:

a. **Auto-enrolment mechanisms (with mandatory access provision)** are defined by participation on an auto-enrolment basis, with it being mandatory for firms to give access to occupational schemes if they are being used. The scope of such schemes is either having all employees, groups of employees based upon certain conditions (age, income or time spent at the employer), specific companies or sectors (through occupational schemes) or employees and self-employed people (through state-mandated schemes). Auto-enrolment mechanisms (with mandatory access provision) involve supplementary contributions. Italy and Poland have such mechanisms in place, as well as the UK and New Zealand. Each of these mechanisms involves the use of occupational schemes. In Germany, auto-enrolment can be implemented through collective bargaining agreements. Lithuania also has such a mechanism with a state-mandated[6] scheme in which the key difference from the aforementioned schemes is that both employed and self-employed persons are in scope.

b. **Auto-enrolment mechanisms (with voluntary access provision)** are like mandatory access auto-enrolment mechanisms operated through occupational schemes, but firms are

[6] In state-mandated schemes, the scheme is administered through a state body and access is not tied to an employment relationship or worker status.

not required to provide access to an occupational scheme, and they can do so on a voluntary basis. Auto-enrolment mechanisms (with voluntary access provision) involve supplementary contributions. Such mechanisms can be deployed through the creation of an auto-enrolment occupational scheme or through auto-enrolment mechanisms applied on top of existing occupational pension schemes. For example, Canada created such an auto-enrolment occupational pension scheme. In contrast, the US created types of auto-enrolment mechanisms which could be applied to existing occupational pension plan structures such as 401(k), 403(b), Governmental 457(b), SARSEPs and SIMPLE IRA.

c. **Contribution-neutral auto-enrolment** is defined by participation on an auto-enrolment basis but, as opposed to the types of auto-enrolment above, does not involve supplementary contributions but rather a partial reallocation of social security contributions. Contribution-neutral auto-enrolment schemes have employees and self-employed people (through state-mandated schemes) in scope.
Such a scheme was in place in Romania between December 2018 and January 2020.

d. **A contribution-neutral compulsory mechanism** is similar to contribution-neutral AE except that all employees and self-employed people in scope are required to participate in the scheme. Such a scheme is used in Croatia, Romania and Sweden and was in place in Hungary between 1997 and 2010.

e. **A supplementary compulsory mechanism** is a policy approach similar to a contribution-neutral compulsory mechanism except it involves supplementary contributions. All employees and self-employed people/employees within particular sectors are in scope for, and all participate in, schemes where they can make supplementary contributions. Where occupational schemes are used, firms are required to provide access to occupational schemes. Such a policy approach is used at the sector level for employees in the Netherlands, Sweden, and Denmark, and for employees and the self-employed in Finland.

f. Finally, **a voluntary mechanism (with voluntary access provision)** gives the employees of firms that offer occupational schemes the opportunity to opt-in to a scheme and make supplementary contributions.

The table below summarises the auto-enrolment mechanisms and alternative policy approaches for increasing participation and savings in pension schemes and lists the countries using these mechanisms that will be considered through the study.

Table 1 Classification of auto-enrolment mechanisms and other policy approaches for increasing participation and savings in pension schemes

Mechanism	Scope	Access provision	Participation conditions	Contribution models	Countries
Auto-enrolment (AE) (mandatory access provision)	Employees and self-employed	State-mandated schemes	Opt-out	Supplementary	LT
	Employees/Employees of particular sectors	Mandatory occupational schemes	Opt-out	Supplementary	DE, IT, PL and NZ and UK
AE (voluntary access provision)	Employees	Voluntary occupational schemes	Opt-out	Supplementary	FR, US and CA
Contribution-neutral AE	Employees and self-employed	State-mandated schemes	Opt-out	Reallocation	RO (December 2018 – January 2020)[7]
Compulsory	Employees of particular sectors	Mandatory occupational schemes	Compulsory	Supplementary	DK, NL (and SE)

[7] Between December 2018 and January 2020, people who had been contributing for at least five years were permitted to opt out from Romania's otherwise-mandatory contribution-neutral private scheme. See Romania country fiche in Annex 3 for further details.

Mechanism	Scope	Access provision	Participation conditions	Contribution models	Countries
	Employees and self-employed	State-mandated schemes	Compulsory	Supplementary	FI[8]
Contribution-neutral compulsory	Employees and self-employed	State-mandated schemes	Compulsory	Reallocation	RO, SE, HR, HU (1997-2010)
Voluntary (voluntary access provision)	Employees	Voluntary occupational schemes	Voluntary	Supplementary	ES, FR

[8] The Finnish earnings-related pension (ERP) is included in the study for possessing features that could be deployed in auto-enrolment pension schemes, that is, despite the Finnish ERP being the main old-age pension in Finland.

3. Pre-conditions and pre-requisites

This chapter presents a list of the pre-conditions and pre-requisites for the introduction of an auto-enrolment mechanism, based on the findings of a literature review, stakeholder consultations and conversations with expert panel supporting the study and informed (in places) by LE Europe's judgement. The analysis considers both economic and legal factors, as well as both essential pre-conditions and pre-requisites and enabling pre-conditions and pre-requisites.

3.1. Legal and regulatory pre-conditions and pre-requisites

3.1.1. Legal basis for the establishment of auto-enrolment pension schemes

Auto-enrolment schemes should have a legal basis through which the act of auto-enrolment itself is legally permitted at a national or regional level. Voluntary access auto-enrolment can exist in the absence of a legal basis for it; for instance, in the USA McDonald's implemented auto-enrolment into its 401(k) plan in 1984,[9] before the legal permissibility of this was made explicit in 1998. However, auto-enrolment is unlikely to achieve widespread uptake without a legal basis.

The legal basis for auto-enrolment can take various forms. In Germany for example, auto-enrolment pensions are regulated by a law. Similarly, in the UK and Canada, this legal basis is embodied in an act (i.e., a law). Specifically, any changes made to the original act in the UK require the passing of another act. In New Zealand, an act was passed to set a basis in law for auto-enrolment; however, more specific provisions and any subsequent changes are contained in a regulation. By contrast, in the USA auto-enrolment was first established through a ruling, although an act was later enacted.

In the USA, the Internal Revenue Service Revenue Ruling 98-30 in 1998 clarified that auto-enrolment was permissible for new employees, giving employers the ability to automatically enrol employees through 'negative consent'.[10] Effectively, employees could be automatically enrolled in their company's 401(k), and their contributions are automatically deducted from their pay, unless they voluntarily chose to opt out of participation.[11] Subsequent instruments, such as the Pension Protection Act (PPA)[12] contributed to more widespread adoption of auto-enrolment pensions.

Similarly, the Pensions Act 2008, provided a legal basis for auto-enrolment in the UK.[13] It ascertains that it is compulsory for employers in the UK to automatically enrol their eligible workers into a pension scheme, into which the employer must also pay money. In New Zealand, auto-enrolment was introduced in the KiwiSaver Act 2006 and the KiwiSaver Regulations 2006.[14]

Moreover, in Germany the Betriebsrentenstärkungsgesetz (BRSG)[15], Germany's new pensions law, took effect at the start of 2018 and established a legal basis for auto-enrolment for the first time. Section 20 of the BRSG stipulates that a certain part of the employee's gross salary is automatically retained by the employer to finance a company pension, however the employee reserves the right to object, by opting out, within a certain period of time.[16] The BRSG specifies

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[9] Pender, K. (2006), 'Automatic enrollment in 401(k)', *SFGate*. Published 8th August 2006. Available at https://www.sfgate.com/business/networth/article/Automatic-enrollment-in-401-k-2491506.php.

[10] Internal Revenue Service Revenue Ruling 98-30, available at: https://www.irs.gov/pub/irs-drop/rr-98-30.pdf.

[11] J. Dietch, T. Choukhmane (2019), 'Auto-enrolment's Long-Term Effect on Retirement Saving', available at: https://www.troweprice.com/content/dam/retirement-plan-services/pdfs/insights/CCON0020242_C8.pdf.

[12] Pension Protection Act of 2006, Public Law 109–280, available at: https://www.govinfo.gov/content/pkg/PLAW-109publ280/pdf/PLAW-109publ280.pdf

[13] Pensions Act 2008, Article 3, available at: https://www.legislation.gov.uk/ukpga/2008/30/contents.

[14] KiwiSaver Act 2006, available at: https://www.legislation.govt.nz/act/public/2006/0040/latest/DLM378372.html; KiwiSaver Regulations 2006, available at: https://www.legislation.govt.nz/regulation/public/2006/0358/latest/DLM418375.html.

[15] Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*), available at: https://www.buzer.de/s1.htm?g=Betriebsrentenst%C3%A4rkungsgesetz&f=1.

[16] Section 20, of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*), available at: https://www.gesetze-im-internet.de/betravg/__20.html.

that automatic enrolment of employees through a salary sacrifice arrangement is permitted only as part of a collective agreement.[17]

3.1.2. Regulatory framework for occupational and personal pension schemes

A regulatory framework for occupational and personal pension schemes in general should exist in a country if that country is to introduce auto-enrolment in occupational or personal schemes.

A regulatory framework for occupational and personal schemes would delineate, *inter alia*, reporting requirements for pension funds, the powers and duties of pension plan governance bodies, the obligations of employers acting as sponsors of pension plans, the types of investment vehicles permitted, tax implications, and the rights of scheme members upon retirement. Auto-enrolment schemes would need to operate within this regulatory framework.

Because an auto-enrolment scheme is likely to involve relatively large numbers of savers with often low levels of engagement and financial literacy, policy-makers may choose to impose additional minimum standards for funds in the auto-enrolment scheme. The existence of additional minimum standards may help to foster trust in the system. Section 4.3.1 discusses the trade-offs associated with having different levels of minimum standards for funds in the auto-enrolment scheme. In addition, the importance of trust for the successful introduction of auto-enrolment is discussed below in section 3.3.1.

3.1.3. Supervisory body, or bodies, for providers

The compliance of occupational or personal pension providers with any relevant regulations must also be monitored and enforced. Such monitoring and enforcement might be done by an existing body or by a body established alongside the introduction of auto-enrolment, although the latter will require preparatory work before the auto-enrolment scheme becomes active.

The responsible supervisory body, or bodies, must be adequately resourced as auto-enrolment is liable to place new and additional burdens on supervisory bodies.[18] There are financial costs associated with resourcing a supervisory body. The budget for The Pensions Regulator, the regulatory body for occupational pension schemes in the UK, was more than €110 million in the 2019/20 financial year.[19] The budget is derived from two sources. The majority comes from the Department for Work & Pensions and is recovered by the Department for Work & Pensions through a levy on providers.[20] The remainder comes from general taxation.[21]

In countries where trust-based governance, characterised by governance by a board of trustees with a fiduciary duty to savers (see section 4.4.4), of pension schemes exists, regulation of master trusts is an area of particular interest when auto-enrolment is being introduced. A master trust operates a scheme used, or intended to be used, by multiple unrelated employers.[22] Master trusts can be expected to play an increased role in pension provision when auto-enrolment is

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[17] Hogan Lovells (2019), 'Workplace pensions in Germany : what you need to know'. Pension briefing, July 2019. Available at https://www.hoganlovells.com/~/media/hogan-lovells/pdf/2019/2019_08_14_german_pension_schemes__client_note.pdf?la=en.

[18] See, e.g., Paklina, N. (2014), 'Role of Pension Supervisory Authorities in Automatic Enrolment', *IOPS Working Papers on Effective Pensions Supervision*, No.22. December 2014.

[19] The Pensions Regulator (UK) (2019), 'Corporate Plan 2019-22'. Available at https://www.thepensionsregulator.gov.uk/en/document-library/corporate-information/corporate-plans/corporate-plan-2019-2022.

[20] Ibid.

[21] Ibid.

[22] See, e.g., The Pensions Regulator (2021), 'Check if your scheme is a master trust'. Available at https://www.thepensionsregulator.gov.uk/en/master-trust-pension-schemes/check-if-your-scheme-is-a-master-trust-.

introduced.[23] In the UK, new master trusts must be authorised by the Pensions Regulator before they may operate, and master trusts are subject to ongoing supervision.[24, 25]

3.2. Financial system pre-conditions and pre-requisites

3.2.1. Availability of suitable low-cost investment vehicles that provide adequate returns to investors

The first financial-system-related pre-condition concerns the accumulation phase of pension saving. There must exist suitable investment vehicles in the country in question and, for auto-enrolment to be successful, they must be sufficiently low-cost and adequately well-performing.

The availability of investment vehicles that are sufficiently low-cost and adequately well-performing are important in order to improve participants' retirement incomes[26] and to minimise opt-out rates.

A range of different investment strategies should be available in order to allow savers to choose funds that match with their goals, preferences, and risk tolerances. Investment strategies with different levels of exposure to equities and bonds respectively as well as ESG investing and Sharia-compliant products should be available. Section 4.3.1 below discusses the issues associated with the amount of choice of funds and providers offered to savers.

Clear fee and reporting information – in line with reporting codes such as Global Investment Performance Standards (GIPS) – by providers also promotes competition, trust, and efficiency at the accumulation stage. Transparency and the provision of information are also aided by the presence of platforms that allow pension savers to compare funds' performance and fees. Such platforms exist in New Zealand and the UK, for instance.

The availability of suitable low-cost investment vehicles that provide adequate returns is likely to rely on a regulatory framework that supports such availability. Relevant aspects of such a regulatory framework include the entry requirements imposed on funds and providers, the scale of providers and the mandates of any providers established by the state (like NEST in the UK). These issues are discussed in section 4.3.1 below.

There are several policy measures that might be implemented if costs in the pension provider market are inappropriately high, such that pension savers receive poor value for money. Measures could be employed to increase the transparency of costs and charges in a bid to stimulate competition on the basis of costs and charges. Moreover, in several auto-enrolment schemes, there exist caps on annual management charges as a percentage of assets under management.[27] These policy options could be implemented in isolation or together. Section 4.4.3 discusses the issue of costs and charges in auto-enrolment schemes further.

The state may choose to establish a provider in order to increase the availability of suitable low-cost, adequately-performing investment vehicles to pension savers. In the UK, Nest was established in order to ensure that all employers would be able to access a suitable low-cost pension scheme pursuant to their obligations under the auto-enrolment scheme.[28] Nest is obliged to serve any employer that wishes to use Nest to fulfil their obligations under the auto-enrolment scheme and to serve all eligible workers who are auto-enrolled by their employer. The default investment strategy and performance of Nest are discussed further in the UK case study presented

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[23] See, e.g., PwC Ireland (2020), 'The future of master trusts in Ireland'. Published 18th December 2020. Available at https://www.pwc.ie/services/human-resource-services/insights/future-master-trusts-ireland.html.

[24] The Pensions Regulator (2021), 'Authorisation of new master trusts'. Available at https://www.thepensionsregulator.gov.uk/en/master-trust-pension-schemes/authorisation-of-new-master-trusts.

[25] The Pensions Regulator (2021), 'Master trust supervision: an introduction'. Available at https://www.thepensionsregulator.gov.uk/en/master-trust-pension-schemes/supervision-of-master-trusts/master-trust-supervision-an-introduction.

[26] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[27] See, for instance, OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[28] See, for instance, Department for Work & Pensions (UK) and Nest (2018), *National Employment Savings Trust Corporation Framework Document - Effective from February 2019*.

in section 5.6 below. Nest has received funding (in the form of loans) from the Department for Work & Pensions; the total balance of loans to Nest from the Department for Work & Pensions was £884 million by the end of the 2020-2021 financial year,[29] approximately ten years since Nest's launch in 2011 and 13 years since its formation in 2008. It is expected, however, that Nest will be able to repay this loan as it grows.[30]

3.2.2. Access to foreign asset managers and ability to invest in foreign securities

The presence of foreign (i.e. non-domestic) asset management companies and the ability to invest in foreign (i.e. non-domestic) securities are important enabling pre-conditions for the successful introduction of auto-enrolment, particularly (but not only) in countries in which capital markets are less well developed.

Both the cost of investing in foreign securities and regulatory restrictions on doing so are relevant here. A number of countries permit foreign investment only in certain countries (for instance, just countries in the OECD or in the EEA) or restrict investment in foreign securities; the latter can be done either through direct ceilings or through currency matching rules (according to which pension funds must match some proportion of their liabilities with assets in the same currency).[31] Direct ceilings may relate to the overall share of assets within a fund's portfolio, or they may apply within specific asset classes.[32] In many countries, foreign investment by pension funds is regulated largely by the 'prudent person' principle.[33]

The OECD Core Principles of Private Pension Regulation state that investment abroad by pension funds (and other pension entities) should not be prohibited.[34] The ability to invest in foreign securities is an especially important pre-condition in countries whose domestic capital markets are less well developed because in such countries, the ability to invest in foreign securities will permit access to deeper and more liquid capital markets.[35]

In general, access to foreign asset managers and the ability to invest in foreign securities will facilitate diversification in pension investments. The IORP II directive[36] facilitates this at the EU level, while the CMU initiative is likely to promote further cross-border investment the EU. Absent these features, pension funds' investments may exhibit a high degree of home bias. Such home bias exposes the funds to country risk and will lead to investments being concentrated in those industries that dominate the domestic economy.[37] In addition, if asset managers are better able to operate across borders, they may be able to achieve greater scale in their operations and thereby achieve lower costs through economies of scale.[38]

Barriers to access to foreign asset managers can take several forms. One would be a prohibition of the use of foreign asset managers.[39] National regulations may hinder access to foreign asset managers by imposing administrative burdens or costs on pension funds who wish to outsource

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[29] Department for Work & Pensions (UK) (2021), 'Annual Report & Accounts 2020-21'. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005399/dwp-annual-report-and-accounts-2020-2021-web-ready.pdf.

[30] Ibid.

[31] OECD (2020), 'Annual Survey of Investment Regulation of Pension Funds and Other Pension Providers'. Available at http://www.oecd.org/daf/fin/private-pensions/2020-Survey-Investment-Regulation-Pension-Funds-and-Other-Pension-Providers.pdf.

[32] Ibid.

[33] Ibid.

[34] OECD (2016), 'Core Principles of Private Pension Regulation'. Available at https://www.oecd.org/daf/fin/private-pensions/Core-Principles-Private-Pension-Regulation.pdf.

[35] See, e.g., Davis, E.P. (2002), 'Pension Fund Management and International Investment – A Global Perspective'.

[36] Directive (EU) 2016/2341 of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs). Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016L2341.

[37] See, e.g., Gillbe, R. (2017), 'How to avoid home bias in auto-enrolment funds', *FT Adviser*. Published 7th April 2017. Available at https://www.ftadviser.com/pensions/2017/03/31/how-to-avoid-home-bias-in-auto-enrolment-funds/.

[38] BNY Mellon, 'Institutions for Occupational Retirement Provision II'. Available at https://www.bnymellon.com/content/dam/bnymellon/documents/pdf/emea/iorp-ii-challenges-and-opportunities.pdf.coredownload.pdf.

[39] Ibid.

asset management in this way.[40] Hence, a regulatory framework that avoids imposing additional costs on foreign asset managers could help the introduction of auto-enrolment.

3.2.3. Existence of a well-functioning market for post-retirement products

The third financial-system-related pre-condition relates to the withdrawal phase of pension saving. Upon retirement, many purchase an annuity with some or all of the proceeds from their contributions to a pension fund(s). Doing so can protect the retiree against the risk of the proceeds from their contributions running out while they continue to live.[41]

A well-functioning market for annuities is important for the successful introduction of auto-enrolment. Products should also be consistent with the decumulation conditions set out by the auto-enrolment mechanism; the latter should in turn involve auto-enrolment into genuine pension products with pay-out options that enable savers to secure a retirement income, rather than investment products.

A market for post-retirement products that is deep, competitive, and transparent is important for proper pension provision. A 2019 OECD report[42] also notes that in many countries, '[t]here is no default option and no safeguard against scams or too high prices' in the market for post-retirement products. Post-retirement choices are discussed further in section 4.5.1 below.

Some countries have introduced auto-enrolment in the absence of a well-functioning market for post-retirement products and have responded differently to this issue. For instance, New Zealand has almost no market for annuities.[43] There is not a coordinated approach to decumulation in the KiwiSaver scheme and a state-established annuity provider has not been established.[44] Lithuania, in contrast, made the State Social Insurance Fund (Sodra) a centralised annuity provider in an intervention aimed at reducing costs for consumers.[45] The European Commission and the OECD assisted in the implementation of this solution.[46]

3.3. Other pre-conditions and pre-requisites

3.3.1. Trust

For auto-enrolment to be introduced successfully, people must have trust in the scheme. If such trust does not exist, auto-enrolment will not serve as a successful 'nudge', and significant numbers of people will exercise the option to opt out from the pension scheme. The legal and regulatory treatment of pensions can influence the degree of trust individuals have in them. Where the auto-enrolment scheme is subject to EU law, such as the IORP II, this may increase trust in the scheme. It was an explicit objective of the pan-European Personal Pension Product (PEPP) to create a pan-EU 'quality label' for personal pension products and thereby to increase consumer trust.[47] In addition, a statutory funded auto-enrolment scheme may be viewed by savers as being subject to greater political risk than an occupational auto-enrolment scheme.

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[40] See, e.g., PensionsEurope (2019), 'PensionsEurope Overview: Cross-border Pension Funds'. Available at https://www.pensionseurope.eu/system/files/Overview%20Cross-border%20pension%20funds%20-%20FINAL.pdf.

[41] Blake, D. (2003), 'Financial System Requirements for Successful Pension Reform'. Available at http://eprints.lse.ac.uk/24862/1/dp463.pdf.

[42] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[43] See, for instance, St John, S. (2009), 'The annuities market in New Zealand', University of Auckland Retirement Policy and Research Centre. Available at http://docs.business.auckland.ac.nz/Doc/The-annuities-market-in-New-Zealand-prepared-for-the-Ministry-of-Economic-Development.pdf.

[44] See New Zealand country fiche.

[45] Ministry of Social Security and Labour (Lithuania) (2019), 'OECD experts will help implement a centralised annuity system in Lithuania'. Published 27th May 2019. Available at https://socmin.lrv.lt/en/activities/social-insurance-1/funded-pension-scheme.

[46] Ministry of Social Security and Labour (Lithuania) (2021), 'Funded pension scheme'. Available at https://socmin.lrv.lt/en/news/oecd-experts-will-help-implement-a-centralised-annuity-system-in-lithuania.

[47] European Commission (2017), 'Proposal for a Regulation of the European Parliament and of the Council on a pan-European Personal Pension Product (PEPP)'. Available at https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2017)343&lang=en.

The case of Poland illustrates the importance of trust for the successful implementation of auto-enrolment. Poland introduced its auto-enrolment pension scheme, PPK, in a staged manner between 2019 and 2021.[48] However, to date participation is below what the government had expected. The government had expected uptake by 75% of eligible workers.[49] However, participation in 2019, when roll-out for large employers took place, stood at 40%[50] and participation in Q1 2021 after the completion of the second and third phases of the roll-out was lower, at approximately 25%.[51] One reason that has been identified for this lower-than-expected participation is that trust in funded pension schemes was undermined when, in 2014, the government transferred more than half of the assets in the privately-run mandatory contribution-neutral scheme into the PAYG public pension system.[52]

When trust in private or funded pensions is lacking, measures can be taken to attempt to rebuild that trust ahead of the introduction of auto-enrolment. Such measures could include the involvement of social partners in the design of the auto-enrolment scheme, a process of consensus-building around the auto-enrolment scheme and a communication campaign aimed at assuaging people's fears. The launch of a pension tracking system that facilitates the tracking of pension entitlements could also help to improve trust. However, attempts to improve trust in a pension system when that trust has previously been undermined may not be successful. In Poland, the PPK scheme was designed in consultation with social partners[53] and communications relating to the PPKs emphasise that PPK funds are private.[54] However, a lack of trust (because of the event described above) is still cited as a key reason for low participation in PPKs.[55]

3.4. Summary of pre-requisites and pre-conditions in Italy, New Zealand, Poland and the United Kingdom

This section presents a summary of whether or not the pre-requisites and pre-conditions described earlier in this chapter existed in each of the four countries that are the subject of case studies in chapter 5 below – namely, Italy, New Zealand, Poland and the United Kingdom. More information on the particular experiences of each of these countries in introducing an auto-enrolment scheme is presented in chapter 5.

Pre-condition / pre-requisite	Italy	New Zealand	Poland	United Kingdom
Legal basis for the establishment of auto-enrolment pension schemes	*Present*	*Present*	*Present*	*Present*
Regulatory framework for occupational and personal pension schemes	*Present*	*Present*	*Present*	*Present*
Supervisory body for providers and administrative processes	*Present*	*Present*	*Present*	*Present*
Availability of suitable low-cost	*The default investment*	*The current default of a conservative*	*Providers are required to offer a*	*Nest offers a low-cost solution that is*

[48] MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[49] Instytut Emerytalny and Wojewódka i Wspólnicy (2019), 'Levels of participation in Employee Capital Plans'. Available at http://www.instytutemerytalny.pl/wp-content/uploads/2017/08/Level-of-participation-in-PPK-_November-2019.pdf.

[50] Ibid.

[51] Krzykowski, K. (2021), 'PPK – how many people have signed up? Is it worth it? What are the benefits? Summary of the Pension Institute', *Polish News*. Available at https://www.polishnews.co.uk/ppk-how-many-people-have-signed-up-is-it-worth-it-what-are-the-benefits-summary-of-the-pension-institute/.

[52] OECD (2019), 'How does Poland compare?', *Pensions at a Glance 2019*. Available at https://www.oecd.org/poland/PAG2019-POL.pdf.

[53] Polish Development Fund Group, 'Employee Capital Plans (PPK)'. Available at https://pfr.pl/en/employee-capital-plans.html

[54] See, for instance, MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[55] Krzykowski, K. (2021), 'PPK – how many people have signed up? Is it worth it? What are the benefits? Summary of the Pension Institute', *Polish News*. Available at https://www.polishnews.co.uk/ppk-how-many-people-have-signed-up-is-it-worth-it-what-are-the-benefits-summary-of-the-pension-institute/.

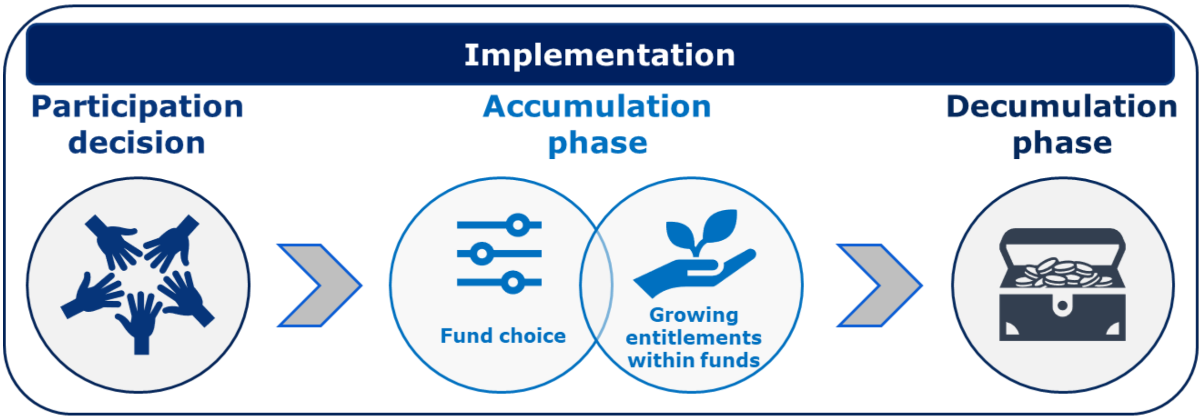
Pre-condition / pre-requisite	**Italy**	**New Zealand**	**Poland**	**United Kingdom**
investment vehicles that provide adequate returns to investors	*strategy had limited scope for providing better returns than the revaluation of the* TFR*, which savers would receive if they opted out*	*investment strategy is being abandoned in favour of a balanced default investment strategy because of concerns that a conservative investment strategy would not provide adequate returns over the long term. Fees, which are not explicitly capped but rather are subject to a requirement of reasonableness, have not declined as quickly as was hoped*	*suitable number of target date funds (using life-cycle investment strategies) that serve as a default, and charges are capped at a low level*	*available to all employers. A charge cap secures low fees*
Access to foreign asset managers and ability to invest in foreign securities	*Present*	*Present*	*Present (although foreign-currency-denominated assets cannot exceed 30% of total assets by value)*	*Present*
Existence of a well-functioning market for post-retirement products	*The annuity market was small at the time auto-enrolment was introduced, with high prices*[56]	*There is almost no annuity market in New Zealand*	*Tax incentives are used to encourage savers to make use of programmed withdrawals rather than taking all of their benefits in a lump sum*	*While the UK had a relatively large annuity market prior to the introduction of auto-enrolment, both supply- and demand-side sources of consumer detriment were identified. Problems with the UK's annuity markets were part of the rationale for the 'pension freedom day' reforms in 2015*
Trust	*Present*	*Present*	*A lack of trust was identified as a factor that undermined the introduction of auto-enrolment*	*Present*

[56] See, e.g., Guazzarotti, G. and Tommasino, P. (2008), 'The Annuity Market in an Evolving Pension System : Lessons from Italy', *Center for Research on Pensions and Welfare Policies Working Paper 77/08*. Available at https://www.cerp.carloalberto.org/wp-content/uploads/2008/12/wp_77.pdf?f6fa34.

4. Key features of auto-enrolment and alternative policy approaches

This chapter describes key features of auto-enrolment schemes and, where relevant, other types of pension schemes. It describes different designs that have been implemented in auto-enrolment pension schemes and other types of supplementary schemes, and the rationales for and implications of these different designs. The discussion in this chapter is informed by a review of the relevant literature, the stakeholder consultations that were conducted in support of this study,[57] and LE Europe's judgement.

This chapter considers the issues associated with the implementation of an auto-enrolment scheme and with four different stages of an individual saver's 'journey'. The first is the stage at which the saver decides whether or not to join a pension plan; this stage is referred to as the 'participation decision' stage. The next two stages comprise the accumulation phase of the saver's journey. After having decided to participate, the saver must then choose a fund in which to invest their capital; this is the 'fund choice' stage. In this stage, the saver may have to choose both a provider and a fund, or a provider may be chosen by the saver's employer and the saver may have to choose between that provider's funds. Having chosen a fund, the saver will then make contributions and grow entitlements. Finally, there is the decumulation phase, when the saver takes benefits from the assets that they have accumulated.[58]



4.1. Implementation

4.1.1. Interaction with other pension schemes

An auto-enrolment scheme must be designed in a way that is compatible with the rest of the pension system in the country in question, including in terms of the role of social partners and in terms of contribution levels in relation to future pension adequacy.

Pension systems across Europe, and across the world, differ considerably. The generosity of public pension provision varies significantly between countries. The coverage and adequacy of supplementary pension provision – both occupational and personal – also varies appreciably. For instance, in countries such as the Netherlands and Sweden, occupational pensions based on collective agreements between social partners are quasi-mandatory.[59] In other countries, such as Bulgaria[60], the coverage of occupational schemes is negligible. Countries differ, too, in how prevalent defined benefit (DB) and defined contribution (DC) pension schemes are. As such, the broader pension system within which auto-enrolment operates varies considerably between countries.

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[57] Further information on the main findings from the stakeholder consultations can be found in Annex 4.

[58] It is important to note that the depiction in this figure of the saver's journey as linear is a simplification that may not be accurate in all cases. The participation decision may not be a one-shot event; a saver may opt out from a pension plan, and may subsequently re-enrol. Similarly, a saver who has chosen a fund and is contributing to it may select a fund again, either as a matter of active choice or because they have changed employer and therefore are moving from one plan to another.

[59] European Commission (2018), 'The 2018 Pension Adequacy Report: current and future income adequacy in old age in the EU', Vol.1.

[60] Ibid.

As discussed further in section 4.4.1.1, the appropriate default or minimum rate of contributions to an auto-enrolment scheme depends on the role the auto-enrolment scheme is envisaged to play within the wider pension system. This envisaged role should be communicated as part of efforts to build trust in the scheme.

The variation in the nature and generosity of public pensions also creates different incentives to save in supplementary pensions in different countries. In Italy, for instance, the state pension historically was generous in its provision for early retirement and occupational pension schemes were not very widely established.[61] However, the reform of Italy's state pension has reduced its generosity.[62] Where a generous state pension system has meant little need for supplementary saving in occupational and personal pensions historically and the generosity of the state pension is reduced, auto-enrolment may serve an important role by increasing participation in supplementary pensions through 'nudging', complementing state provision so as to facilitate the maintenance of a certain level of retirement income for savers. However, in countries where the state pension has historically been generous people may choose to opt out from the auto-enrolment scheme in greater numbers because of an expectation that they will receive an adequate replacement rate through the state pension, attenuating auto-enrolment's impact on participation. While transparency about rates of contribution to the auto-enrolment scheme in relation to future adequacy and efforts to communicate reductions in state pension entitlements may help to address this, inertia and a lack of pension awareness are likely to mean that these efforts will not address the issue completely. The generosity of the public pension also influences the level of saving needed in an auto-enrolment scheme (or alternative) in order to achieve a given replacement rate.

In some countries, income from personal and occupational pensions, including from auto-enrolment pensions, reduces, under certain circumstances, entitlements to other social benefits in retirement. For instance, in Canada, single, widowed, and divorced pensioners receiving total benefits over $19,248 per year from their public, occupational, and personal pensions are unable to receive additional income assistance such as the Guaranteed Income Supplement (GIS).[63] Such policies may act as a disincentive for participation in auto-enrolment pension plans amongst low-income earners.

4.1.2. A body, or bodies, that performs the function of auto-enrolment

In order to make use of the behavioural phenomenon of inertia, a body, or bodies, other than the saver must perform the function of automatically enrolling that saver. In most countries that have introduced auto-enrolment to date, a saver's employer has been responsible for automatically enrolling that saver.[64] However, this is not the case in Lithuania and was not the case in Chile due to the auto-enrolment scheme's not being occupational in each of these two countries. In Lithuania, the State Social Insurance Fund Board, Sodra, performs this role for employees and self-employed workers aged under 40.[65] In Chile's auto-enrolment scheme that targeted only the self-employed, a tax rebate to in-scope individual workers was directed to a pension account unless they opted out through their income tax declaration.[66]

4.1.3. Time to prepare

Auto-enrolment is more likely to succeed if adequate time is allowed between the passage of the relevant legislation and the beginning of the scheme's operation. Short implementation periods can reduce the impact of auto-enrolment for three reasons. Firstly, they give employers, providers and regulators little time to prepare for their obligations under auto-enrolment. Secondly, they give

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[61] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[62] Ibid.

[63] Government of Canada, 'Guaranteed Income Supplement: Overview', available at: https://www.canada.ca/en/services/benefits/publicpensions/cpp/old-age-security/guaranteed-income-supplement.html, last consulted on 05/10/2021.

[64] See, e.g., OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[65] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[66] Ibid.

little time for the competent authority to establish licensing arrangements.[67] Finally, they limit the time during which communications campaign can be run to raise awareness of pension issues amongst consumers before auto-enrolment begins to operate.[68] Short implementation periods were features of the introduction of auto-enrolment in Italy, Poland and Turkey,[69] and each of these countries had an experience of introducing auto-enrolment that was less positive than that of the United Kingdom and New Zealand.

A lack of time to prepare – because of a short implementation period – is likely to be less harmful when the additional obligations imposed on employers, providers and regulators are small (at least initially). For instance, New Zealand's KiwiSaver scheme came into operation the year after the relevant legislation was passed.[70] KiwiSaver, though, applied only to new employees,[71] which reduced the initial burden when the scheme came into operation since it reduced the size of the initial target population. In addition, the deduction of KiwiSaver contributions from gross pay was integrated into the existing Employer Monthly Schedule filing process for pay deductions that are paid to the Inland Revenue Department.[72] Integrating the deduction of KiwiSaver contributions into an existing process reduced the initial burden on employers.

4.2. Participation decision

4.2.1. Scope

Auto-enrolment schemes differ in scope in a number of ways. The scope of an auto-enrolment scheme can vary along several dimensions in order to target those (judged to be) most likely to benefit from auto-enrolment, namely:

- the way in which access to the auto-enrolment scheme is provided;
- the use and level of earnings triggers;
- the use of waiting periods (minimum tenure requirements) or maximum tenure requirements;
- the use and level of age thresholds;
- the inclusion or exclusion of the self-employed; and,
- permitting or not permitting those not automatically enrolled to opt-in to the scheme on a voluntary basis.

This list is not theoretically exhaustive[73] but includes important aspects in which existing auto-enrolment schemes differ in scope.

4.2.1.1. Access provision

In the auto-enrolment mechanisms that exist currently, there are three ways by which access to the auto-enrolment scheme is provided:

- occupational provision with mandatory access provision by employers;
- occupational provision with voluntary access provision by employers; and,
- non-occupational provision.

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[67] Rudolph, H.P. (2019), 'Pension Funds with Automatic Enrollment Schemes – Lessons for Emerging Economies', *World Bank Policy Research Working Paper 8726*. Available at http://documents1.worldbank.org/curated/en/368081549376313709/pdf/WPS8726.pdf.

[68] Ibid.

[69] Ibid.

[70] See New Zealand fiche.

[71] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[72] Ibid.

[73] Another way in which auto-enrolment schemes could vary in scope is the exemption of particular sectors, for instance.

Employers must auto-enrol eligible employees into a pension scheme in Italy, New Zealand, Poland, Turkey, the UK and most[74] state-administered individual retirement account (IRA) schemes in the USA. It is voluntary for employers in Germany, in France, in Canada outside Quebec, and in the USA in the case of occupational schemes.[75] Voluntary provision by employers is likely to see lower coverage than mandatory provision by employers.[76] The extent to which this is true will vary according to the (dis)incentives employers face.[77] Emerging evidence from Canada indicates that the effect is substantial. Quebec's auto-enrolment scheme (VSRPs) features mandatory provision by employers with more than five employees, while the auto-enrolment scheme (PRPPs) in the other provinces features voluntary provision by employers. At the end of 2016, 111 employees from six companies had been enrolled in a PRPP, while in Quebec 71,547 employees from 9,733 companies had been enrolled in a VRSP.[78] Non-occupational provision is used in Chile and Lithuania, where the self-employed are within the scope of auto-enrolment (see section 4.2.1.5 below for further details).

Voluntary access provision may be chosen in order to give employers flexibility and the ability to avoid the additional costs – both in terms of contributions and administrative/compliance costs – that auto-enrolment implies for employers. In the case of voluntary access provision, auto-enrolment may be implemented largely by employers who operated occupational pensions prior to the introduction of auto-enrolment.[79] Mandatory access provision prevents those employers who do implement auto-enrolment suffering a cost disadvantage against those employers who do not implement auto-enrolment, since all employers must provide access. Part of the rationale in the Dutch system for making occupational pension schemes mandatory for entire sectors is to prevent competing firms being engaged in a 'race to the bottom' in pension contributions.[80]

4.2.1.2. Earnings triggers

Auto-enrolment may apply only to workers earning over a certain income threshold. In the UK, for instance, only employees earning at least £10,000 are subject to auto-enrolment (see UK country fiche in section 12.16 of Annex 3 for further details). The Irish government consulted on a proposal for the introduction of an auto-enrolment mechanism that had a €20,000 earnings trigger.[81] In New Zealand, meanwhile, there exists no income threshold for the application of auto-enrolment (see New Zealand fiche in section 12.11 of Annex 3 for further details).

Some countries use earnings triggers in auto-enrolment mechanisms to exempt low-earners from auto-enrolment on the grounds that low-earners are less likely to benefit from auto-enrolment. State pensions in themselves may provide low-earners with high replacement rates and contributions to an auto-enrolment occupational pension may not be affordable for such workers.[82] In addition, there is evidence that suggests that workers who are auto-enrolled may not choose to opt out even if they may be better off if they did so. A recent publication by the Institute for Fiscal Studies[83] highlights that the 'nudge' of auto-enrolment secured participation rates of above 90% even among the least financially secure UK employees. Those in this group who participate in auto-enrolment pensions do contribute to these pensions as employers do not contribute all of the minimum total contribution.[84] As the authors from the IFS note, it is likely (by virtue of their

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[74] Congressional Research Service (2020), 'State-Administered IRA Programs: Overview and Considerations for Congress'. 4th August 2020. Available at https://crsreports.congress.gov/product/pdf/IF/IF11611.

[75] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[76] Ibid.

[77] Ibid.

[78] Ibid.

[79] Ibid.

[80] Van Meerten, H. and Schmidt, E. (2017), 'Compulsory membership of pension schemes and the free movement of services in the EU', *European Journal of Social Security*, Vol. 19(2), 118-140. Available at https://journals.sagepub.com/doi/pdf/10.1177/1388262717713414.

[81] Government of Ireland (2018), 'A Strawman Public Consultation Process for an Automatic Enrolment Retirement Savings System for Ireland'. Available at https://www.gov.ie/en/consultation/1816502908-automatic-enrolment-retirement-savings-system/.

[82] OECD (2014). 'OECD Pensions Outlook 2014'. Available at https://read.oecd-ilibrary.org/finance-and-investment/oecd-pensions-outlook-2014_9789264222687-en.

[83] Bourquin, P. and Crawford, R. (2020), 'Automatic enrolment – too successful a nudge to boost pension saving?'. Published 18th May 2020. Available at https://www.ifs.org.uk/publications/14850.

[84] Ibid.

financial precariousness) that at least some members of this group would be better off not contributing to an occupational pension and would benefit more from saving to create an emergency fund or from having more income to spend on necessities.[85] In LE Europe's view, the salience of the possibility of opting out and the ease of opting out could influence the extent to which people fail to opt out when they would be better off doing so.

However, earnings triggers for auto-enrolment can generate problems if set too high as it will exclude low-income workers that would benefit from additional pension saving. This will reduce the success of the auto-enrolment scheme in improving pension coverage and adequacy amongst low-income workers. Significantly, empirical evidence from the UK[86] and the USA[87] suggest that amongst those who are within the scope of the auto-enrolment scheme, auto-enrolment has a particularly large effect on participation amongst lower earners.

Those working on part-time or irregular contracts are particularly likely to be excluded from the scope of auto-enrolment by an earnings trigger.[88] Part-time and irregular employment is often associated with lower hourly wages, shorter working hours, and employment breaks.[89] While there is a large degree of uncertainty about how labour markets will evolve in the future, part-time and irregular employment may grow in prevalence in the future.[90] Particular sectors that employ greater numbers of low earners (e.g. the hospitality sector[91]) are likely to be disproportionately affected by an earnings trigger. An earnings trigger will, also, disproportionately exclude women from auto-enrolment, since women are over-represented amongst low-paid and part-time workers in many countries.[92] In LE Europe's view, the gender impact of an earnings trigger is particularly troubling in light of the existing pension gender gap. This issue was raised during consultations on proposals for the introduction of auto-enrolment in both the UK[93] and Ireland[94].

The level at which an earnings trigger is set may be reviewed periodically, as is done in the UK,[95] in response to changes in prices, wages, and tax thresholds, and in light of evidence of auto-enrolment's impacts. In the UK, the earnings trigger has been unchanged (at £10,000 per annum) since the 2015/16 tax year.[96] During this time, prices and wages have (in aggregate) risen and therefore the earnings threshold has fallen in real terms and more people have fallen within the

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[85] Ibid.

[86] Cribb, J. and Emmerson, C. (2019), 'Pensions for almost all: automatic enrolment for employees of small employers', *IFS Working Paper W19/07*, available at https://www.ifs.org.uk/uploads/publications/wps/WP201907.pdf, and Cribb, J. and Emmerson, C. (2016), 'What happens when employers are obliged to nudge? Automatic enrolment and pension saving in the UK', *IFS Working Paper W16/19*, available at https://www.ifs.org.uk/uploads/wp1619.pdf.

[87] Madrian, B. and Shea, D. (2001), 'The power of suggestion: inertia in 401(k) participation and savings behavior', *Quarterly Journal of Economics*, Vol. 116, No. 4, 1149–87.

[88] See, e.g., the response of the Citizens Information Board to the Strawman Public Consultation Process for an Automatic Enrolment Retirement Savings System for Ireland (November 2018). Available at https://assets.gov.ie/43705/2b96da96a1e34e2b8546f53572568f8c.pdf.

[89] OECD (2019), 'OECD Pensions at a Glance 2019: OECD and G20 Indicators'. Available at https://www.oecd.org/publications/oecd-pensions-at-a-glance-19991363.htm.

[90] Ibid.

[91] See, for instance, Francis-Devine, B. (2021), 'National Minimum Wage Statistics', *House of Commons Library Briefing Paper Number 7735*, published 15th February 2021. Available at https://commonslibrary.parliament.uk/research-briefings/cbp-7735/.

[92] See, e.g., Foster, L., Wijeratne, D. and Mulligan, E., 'Gender and proposed Auto-enrolment in the Republic of Ireland: Lessons from the UK', *Soc. Policy Adm.* 2021;55: 143-156.

[93] Thurley, D. (2020), 'Pensions: automatic enrolment – current issues', House of Commons Library, Briefing Paper CBP-06417. 21st February 2021.

[94] See, e.g., the response of the Citizens Information Board to the Strawman Public Consultation Process for an Automatic Enrolment Retirement Savings System for Ireland (November 2018). Available at https://assets.gov.ie/43705/2b96da96a1e34e2b8546f53572568f8c.pdf.

[95] See, e.g., Department for Work & Pensions (2021), 'Review of the automatic enrolment earnings trigger and qualifying earnings band for 2021/22: supporting analysis'. Available at https://www.gov.uk/government/publications/automatic-enrolment-review-of-the-earnings-trigger-and-qualifying-earnings-band-for-202122/review-of-the-automatic-enrolment-earnings-trigger-and-qualifying-earnings-band-for-202122-supporting-analysis.

[96] The Pensions Regulator (UK), 'Knowing your client's ongoing duties – Automatic enrolment earnings threshold'. Available at https://www.thepensionsregulator.gov.uk/en/business-advisers/automatic-enrolment-guide-for-business-advisers/9-knowing-your-clients-ongoing-duties/automatic-enrolment-earnings-threshold.

scope of auto-enrolment.[97] Part of the rationale for freezing the earnings trigger in the UK has been to create stability and to aid employers in planning.[98]

In the 2017 review of the UK's auto-enrolment scheme, the views expressed by stakeholders about the level of the earnings trigger (£10,000 per annum) were mixed.[99] Some stakeholders supported the existence of an earnings trigger and its current level.[100] These stakeholders listed the high replacement rate already achieved by the state pension for low earners, the additional costs for employers of auto-enrolling low earners, and the affordability for low earners of contributions.[101] Others supported a reduction in the level of the earnings trigger in order to expand the scope of auto-enrolment.[102]

An additional consideration, which has highlighted by stakeholders, is whether all employment income is aggregated for the application of the earnings trigger, or if income is assessed on a job-by-job basis. If earnings are considered in aggregate, fewer individuals with multiple places of employment will be excluded. In contrast, if the earnings trigger needs to be exceeded at each place of employment, as is the case in the UK (see UK country fiche in section 12.16 of Annex 3 for further details), a higher number of employees in multiple low-paid, part-time jobs may be excluded. Multiple low-paid employment (MLPE) is often associated with non-standard employment contracts (such as zero-hours contracts) and non-standard employment conditions (in relation to working hours, for instance).[103] As mentioned above, in many countries, women are over-represented amongst workers in low-paid and part-time jobs; one in 20 women employed in the UK were in MLPE before the COVID-19 pandemic, and this proportion was rising.[104] An earnings trigger that excludes a greater number of people in MLPE may, therefore, impact on pension provision for women and those on non-standard employment contracts.

4.2.1.3. Waiting periods (minimum tenure requirements) and maximum tenure requirements

Auto-enrolment may be subject to a 'waiting period' or minimum tenure requirement, such that only employees who had been employed by their employer for a certain minimum period of time or, alternatively, only newly-hired employees are auto-enrolled (implying essentially a maximum tenure requirement).

Auto-enrolment applies only to newly-hired employees in New Zealand, in many companies in the United States and, after January 2007, Italy.[105] While applying auto-enrolment only to new hires may reduce the administrative burden associated with auto-enrolment, it risks slowing the growth of participation rates achieved by auto-enrolment.[106]

By contrast, in Canada, both PRPPs and VRSPs have minimum tenure requirements for auto-enrolment.[107] This serves to exclude short-term temporary workers,[108] thereby reducing administrative obligations but shrinking the size of the target population.

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[97] See, for instance, Austin, A. (2021), 'AE threshold frozen at £10k for sixth time', *FT Adviser*. Published 21st January 2021. Available at https://www.ftadviser.com/pensions/2021/01/21/ae-threshold-frozen-at-10k-for-sixth-time/.

[98] Ibid.

[99] Department for Work & Pensions (UK) (2017), 'Automatic Enrolment Review 2017: Maintaining the Momentum'. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/668971/automatic-enrolment-review-2017-maintaining-the-momentum.PDF.

[100] Ibid.

[101] Ibid.

[102] Ibid.

[103] Nuffield Foundation, 'Women in multiple low-paid employment: pathways between work, care and health – Project overview'. Available at https://www.nuffieldfoundation.org/project/women-multiple-low-paid-employment-work-care-health.

[104] Ibid.

[105] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[106] Ibid,

[107] Ibid.

[108] Ibid.

4.2.1.4. Age thresholds

Auto-enrolment may apply to workers of only certain ages - people below or above a certain age may be excluded from auto-enrolment.

Some countries do not include the youngest workers in their auto-enrolment mechanisms. For instance, the UK's auto-enrolment mechanism applies only to employees aged between 22 and the state pension age.[109] A reason for excluding younger workers is the fact that younger workers are more likely to change employer or have periods of work broken up by study.[110]

However, many argue that it is best not to exempt young people from auto-enrolment. Beginning to save early in one's life is an important part of maximising one's pension savings as it allows greater exploitation of compounding.[111] Returns on pension savings can themselves be invested and achieve returns. This permits non-linear growth in pension assets over time. The earlier an individual begins to invest, the more that individual can exploit this non-linear growth to maximise their pension savings. Starting to save at an earlier age also helps in raising pension awareness and forming a habit of saving for retirement.[112] In addition, if an age threshold for auto-enrolment means that young people are automatically enrolled after already having been in employment for a number of years – as may be the case if the age threshold is 22 years of age, as in the UK – then they will see a drop in take-home pay when they start paying pension contributions, which could deter participation.[113] The review of the UK's auto-enrolment scheme that took place in 2017, five years after its phased introduction began, recommended that the lower age limit for auto-enrolment be reduced from 22 to 18.[114] In addition, auto-enrolment has been found in the USA[115] and the UK[116] to be particularly effective in improving participation in pension schemes by younger people.

Some auto-enrolment mechanisms exclude people who are over a particular age (but below the retirement age). In Poland, for instance, auto-enrolment applies to employees aged under 55, and in Lithuania auto-enrolment applies to workers aged under 40.[117] The rationale for such an upper limit is that older workers may accrue less entitlements as a consequence of auto-enrolment because there is less time before retirement in which their investments can grow.[118] A 2014 report by the UK Pensions Policy Institute, however, suggested that for most older workers eligible for auto-enrolment in the UK there was a low risk of remaining in the auto-enrolment scheme being unsuitable for them.[119]

4.2.1.5. Inclusion of the self-employed

With the exception of Chile and Lithuania, auto-enrolment schemes that have been introduced to date do not include the self-employed in their scope. In the case of Chile, the self-employed were

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[109] Ibid.

[110] Thurley, D. (2021), 'Pensions: automatic enrolment – current issues', House of Commons Library, Briefing Paper CBP-06417. 25rd February 2021.

[111] Cohen, N. (2012), 'OECD backs compulsion for pensions policy', *Financial Times*. Published 11th June 2012. Available at https://www.ft.com/content/2145bd66-b39d-11e1-a3db-00144feabdc0.

[112] Department for Work & Pensions (UK) (2017), 'Automatic Enrolment Review 2017: Maintaining the Momentum'. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/668971/automatic-enrolment-review-2017-maintaining-the-momentum.PDF.

[113] Ibid.

[114] Ibid.

[115] Madrian, B. and Shea, D. (2001), 'The power of suggestion: inertia in 401(k) participation and savings behavior', *Quarterly Journal of Economics*, Vol. 116, No. 4, 1149–87.

[116] Cribb, J. and Emmerson, C. (2016), 'What happens when employers are obliged to nudge? Automatic enrolment and pension saving in the UK', IFS Working Paper W16/19. Available at https://www.ifs.org.uk/uploads/publications/wps/wp1619.pdf.

[117] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[118] Pensions Policy Institute (2014), 'The benefits of automatic enrolment and workplace pensions for older workers'. Available at https://www.pensionspolicyinstitute.org.uk/media/2129/20140520-ppi-ae-series-2-benefits-of-ae-and-workplace-pensions-for-older-workers.pdf.

[119] Ibid.

the target population for auto-enrolment.[120] Lithuania's auto-enrolment mechanism applies to all workers under the age of 40 including employees and the self-employed.[121]

There are challenges associated with including the self-employed in pension schemes together with employees. One challenge pertains to the calculation of contributions. For employees, pension contributions are usually calculated as a percentage of gross wage (often less some offset).[122] However, it may be difficult to separate labour and capital income for the self-employed. There is therefore difficulty associated with determining the level of pensionable income on which contributions are to be paid for the self-employed. One way of addressing this is calculating 'theoretical wages' for the self-employed, as is done in Finland's pension system.[123] However, there is not a single incontestable way of calculating 'theoretical wages'.[124] Another approach, taken in the pension systems of Norway and Switzerland, is to allow the deduction of interest on capital outlays in calculating pensionable income.[125] Finally, the self-employed can be allowed to declare which part of their income is labour income or to otherwise determine (within some constraints) the basis for their pension contributions.[126] This latter option is the one adopted by many countries, and reflects the difficulty of separating labour and capital income for all.[127] However, it can often result in under-insurance as a consequence of many self-employed workers striving to minimise their contributions.[128] Another challenge in occupational schemes is the need for an institution that performs the auto-enrolment of the self-employed, in the way that employers do for employees. In some countries where the self-employed in certain sectors or professions must join a sectoral or professional organisation, these organisations could perform the auto-enrolment function for the self-employed. In state-mandated auto-enrolment schemes, the state may auto-enrol both employees and the self-employed; for instance, in Lithuania, Sodra (Lithuania's social security institution) performs the auto-enrolment function for the self-employed as well as for employees.[129]

Although including the self-employed in auto-enrolment schemes along with employees may be complex, there are reasons to be concerned about the exclusion of the self-employed from auto-enrolment. The self-employed account for a significant share of the workforce in many countries. In Italy, for instance, the self-employment rate stood at 22.7% of employment in 2019; the EU-28 average in 2018 was 15.3%.[130] In many countries the self-employed accrue fewer public pension entitlements than the employed because of lower contributions.[131] Moreover, excluding the self-employed could encourage businesses to seek to hire people on a self-employed basis in order to avoid paying contributions, although the extent to which this is true will depend on the particular legal and tax environments in the country in question.[132]

Novel behavioural and technological solutions can also be used to support the self-employed to save for retirement if it is not feasible to include them within the scope of auto-enrolment. For instance, 'saving through consumption' platforms aim to increase pension saving by transferring a certain percentage of a consumer's expenditure at participating retailers into a pension savings

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[120] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[121] Ibid.

[122] OECD (2019), 'OECD Pensions at a Glance 2019: OECD and G20 Indicators'. Available at https://www.oecd.org/publications/oecd-pensions-at-a-glance-19991363.htm.

[123] In Finland, the contribution base of a self-employed worker is equal to their 'confirmed income', which corresponds to the wage that an equally competent person would earn for completing the same work. See https://www.etk.fi/en/finnish-pension-system/pension-security/pension-coverage-and-insurance/self-employed/.

[124] OECD (2019), 'OECD Pensions at a Glance 2019: OECD and G20 Indicators'. Available at https://www.oecd.org/publications/oecd-pensions-at-a-glance-19991363.htm.

[125] Ibid.

[126] Ibid.

[127] Ibid.

[128] European Commission and the Social Protection Committee (2018), 'Pension Adequacy Report 2018'.

[129] Ibid.

[130] OECD (2021), Self-employment rate (indicator). Available at https://data.oecd.org/emp/self-employment-rate.htm.

[131] OECD (2019), 'OECD Pensions at a Glance 2019: OECD and G20 Indicators'.

[132] See, for example, Brodbeck, S. (2015), 'Thousands of "bogus" self-employed missing out on pensions', *Money Marketing*. Published 24th August 2015. Available at https://www.moneymarketing.co.uk/news/thousands-of-bogus-self-employed-missing-out-on-pensions/.

account.[133] Saving through consumption platforms tie the act of saving for retirement, which involves deferring income, to current consumption and do not reduce take-home pay (which could discourage saving).

4.2.1.6. Treatment of those not included in the scope of auto-enrolment

In some cases, those who are not included in the scope of auto-enrolment – because they are older than a certain maximum age, for instance – may be allowed to opt into the scheme. This is the case for some individuals in, for example, Canada, Chile, New Zealand (indeed, the majority of KiwiSaver members opted in voluntarily rather than being auto-enrolled[134]), and the UK.[135] When this is permitted, the introduction of auto-enrolment is likely to achieve a greater increase in coverage than if those outside of the targeted population are excluded from the auto-enrolment scheme altogether.

4.2.2. Tax and other incentives

Participation in auto-enrolment pension schemes is often encouraged through the favourable tax treatment of pensions (including, but not limited to pensions in the auto-enrolment scheme) versus alternative savings vehicles.[136] In several countries – including the UK, Canada, Chile and Germany - that have introduced auto-enrolment, the tax treatment of pensions follows an 'EET' regime (that is, an 'Exempt-Exempt-Taxed' regime, referring to the tax treatment of pension contributions, returns on pension investments and withdrawal of pension income respectively).[137] Both employee and employer contributions to pension funds and investment returns from these funds are typically tax-free up to a pre-defined threshold. The taxation of the pension income differs between these systems. For instance, the marginal tax rates applied to pension income vary by country. While most countries tax income in a way that does not depend on the choice of pay-out method,[138] Estonia and the Czech Republic (which do not have auto-enrolment schemes) exempt annuities from taxation, while programmed withdrawals (in the case of the Czech Republic, programmed withdrawals paid over less than ten years) are taxed.[139] Other countries do not follow an 'EET' regime. For instance, Lithuania's auto-enrolment scheme is subject to a 'TEE' ('Taxed-Exempt-Exempt') tax regime in which pension income is exempt from taxation.[140]

Empirical studies from the United States have found that different income groups respond differently to tax incentives.[141] Low- and middle-income households are more likely to increase their overall savings in response to tax incentives for retirement saving; high-income households are more likely to reallocate savings to the tax-favoured pension plan rather than reducing consumption to increase their total savings.[142]

Non-tax financial incentives are also used to encourage participation in auto-enrolment pension schemes.

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[133] See, for instance, Peksevim, S. (2021), 'Pension Systems in the Developing World: Current Challenges and Future Directions', *ARC Centre of Excellence in Population Ageing Research Working Paper 2021/07*. Available at https://www.cepar.edu.au/publications/working-papers/pension-systems-developing-world-current-challenges-and-future-directions.

[134] Inland Revenue (New Zealand) (2021) 'KiwiSaver statistics'. Available at: https://www.ird.govt.nz/about-us/tax-statistics/kiwisaver.

[135] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[136] Ibid.

[137] Ibid.

[138] OECD (2020), 'Financial incentives for funded private pension plans in OECD countries', *OECD project on Financial Incentives and Retirement Savings*, 4th December 2020. Available at https://www.oecd.org/daf/fin/private-pensions/financial-incentives-retirement-savings.htm.

[139] Ibid.

[140] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[141] OECD (2018), 'Financial Incentives and Retirement Savings'. Available at https://www.oecd-ilibrary.org/finance-and-investment/financial-incentives-and-retirement-savings_9789264306929-en.

[142] Ibid.

The primary non-tax financial incentive for participation in auto-enrolment pensions is employer contributions. Employers must make minimum contributions to auto-enrolment pensions in Italy[143], New Zealand[144], Poland[145] and the UK[146]; they may do so voluntarily in Lithuania, in the US in the case of occupational schemes, and in Canada in the case of PRPP and VSRP.[147] Employer contributions can be designed as 'matching contributions' that match the employee's contributions; such matching incentivises employees to increase their contributions.[148] As well as encouraging participation, employer contributions can increase the level of savings for each saver in an auto-enrolment scheme. However, mandatory minimum employer contributions impose a cost on employers,[149] which policymakers must consider.

The direction of the impact of the introduction of auto-enrolment on the contributions employers choose to make is not certain. It is possible that employers may reduce their contributions to occupational pension schemes upon the introduction of auto-enrolment, in order to mitigate the increase in costs brought about by the greater number of employees participating in a pension plan as a result of auto-enrolment. However, the empirical evidence with respect to whether or not this is indeed the case is limited and mixed. In the case of US private sector occupational plans, one study[150], using cross-sectional data and controlling for various company and pension plan characteristics, found that maximum employer matching contribution rates (the maximum employer matching contribution as a percentage of salary) were lower in auto-enrolment plans; another study[151] used plan-level panel data and found that automatic enrolment was positively associated with the ratio of employer contribution rates to employee contribution rates. In the UK, there has been mixed evidence. In 2016, the Institute for Fiscal Studies did not find evidence suggesting that employers had reduced their employer contributions in response to the introduction of auto-enrolment; indeed, the proportion of employees receiving more than 2% of earnings as an employer contribution to their pension rose by 11 percentage points after the introduction of auto-enrolment.[152] More recently, the Automatic Enrolment evaluation report 2018 did find evidence of an increase in the use by employers of 'levelling down' strategies – which reduce the generosity of employer contributions or pension outcomes for employees who are already members of a pension scheme - after the introduction of auto-enrolment; such strategies were applied for approximately 12% of eligible savers in the private sector prior to 2012 but approximately 15% of eligible savers in the private sector in 2016/17.[153] However, this report also noted that survey evidence suggested that only 1% of employers who had experienced additional contribution costs because of the introduction of auto-enrolment had implemented a levelling down strategy in response.[154] In a

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[143] Decreto legislativo 5 dicembre 2005, n. 252, Disciplina delle forme pensionistiche complementari (Legislative Decree No 252 of 5 December 2005, Regulation of supplementary pension schemes), available at: https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2005-12-05;252!vig=, last consulted on: 08/02/2021.

[144] Section 64 of KiwiSaver Act 2006, available at: https://www.legislation.govt.nz/act/public/2006/0040/latest/whole.html#DLM379037 last accessed 08/02/2021.

[145] Ustawa z dnia 4 października 2018 r. o pracowniczych planach kapitałowych, Dziennik Ustaw 2008 poz.2215 (Act on Employee Capital Plans, 4 October 2018, Journal of Laws 2018, item 2215), available at: https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20180002215/T/D20182215L.pdf, last accessed 08/02/2021.

[146] Chapter 1 'Employers' Duties', The Pensions Act 2008, available at: https://www.legislation.gov.uk/ukpga/2008/30/part/1/chapter/1, last accessed 08/02/2021.

[147] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[148] Matching contributions are discussed in Hinz, R., Holzmann, R., Tuesta, D., and Takayama, N. ed. (2013), *Matching Contributions for Pensions: A Review of International Experience.*

[149] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[150] Butrica, B. and Karamcheva, N. (2015), 'Automatic enrollment, employer match rates, and employee compensation in 401(k) plans', *U.S. Burea of Labor Statistics Monthly Labor Review*, May 2015. Available at https://www.bls.gov/opub/mlr/2015/article/pdf/automatic-enrollment-employer-match-rates-and-employee-compensation-in-401k-plans.pdf.

[151] Andrietti, V. (2015), 'Auto-enrollment, matching and participation in 401(k) plans', Centre for Research on Pensions and Welfare Policies, Working Paper 154/15. Available at https://www.cerp.carloalberto.org/wp-content/uploads/2015/12/WP_154.pdf.

[152] Cribb, J. and Emmerson, C. (2016), 'What happens when employers are obliged to nudge? Automatic enrolment and pension saving in the UK', IFS Working Paper W16/19. Available at https://www.ifs.org.uk/uploads/publications/wps/wp1619.pdf.

[153] Department for Work & Pensions (UK) (2018), 'Automatic Enrolment evaluation report 2018'. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/764964/Automatic_Enrolment_Evaluation_Report_2018.pdf.

[154] Ibid.

number of countries, including the UK and the US,[155] employers' pension contributions are given favourable tax treatment, which may help to explain these empirical findings since the net additional cost of employer contributions associated with auto-enrolment is lower than would be the case if they were fully taxed.

Other examples of non-tax financial incentives include government contributions – which could take the form of matching contributions or of fixed subsidies – and a possibility to withdraw accumulated pension savings early in order to purchase a (first) home, both of which are present in New Zealand's auto-enrolment system.[156] The New Zealand government provides 50% matching contributions up to 521 NZD per year per saver and offers a First Home Grant for those who have been contributing to a KiwiSaver plan for at least three years.[157] Until 2015, it offered a fixed 1,000 NZD 'kick-start' contribution to new KiwiSaver savers, but the kick-start was abandoned on the grounds that it was too costly.[158] Other countries whose auto-enrolment systems include non-tax financial incentives are Poland, Lithuania and Turkey.[159] Evidence from Riester pension plans in Germany suggests that fixed nominal subsidies are effective in increasing participation in pension plans across income levels; Riester plans have greater coverage amongst low-income earners than other occupational and personal plans in Germany, and the difference in participation between income groups is smaller for Riester plans than for other occupational and personal plans.[160] However, there is mixed evidence with respect to whether for low earners Riester plans attract new savings rather than inducing a reallocation of existing savings.[161]

Non-tax financial incentives can generally be targeted better at low- and middle-income workers than tax incentives can.[162] This is an advantage, since improving pension provision amongst low- and middle-income workers is likely to be a particular aim of the introduction of auto-enrolment.[163] Non-tax financial incentives are becoming more prominent, although in the past tax incentives have been more common.[164]

Research shows that the impact of a particular (tax or non-tax financial) incentive depends on whether the incentive seeks to rely on active or passive behaviour on the part of the saver. Chetty et al. find that the vast majority of savers are 'passive savers' while a smaller number are 'active savers'.[165] Those who are 'active savers' tend to be more financially literate, older and wealthier.[166] 'Passive savers' tend not to respond to tax subsidies, while automatic contributions (e.g. by an employer) tend to have a substantial impact on total saving; by contrast, 'active savers' tend to

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[155] See, for instance, Turner, J.A. in Cordes, J.J., Ebel, R.D., and Gravelle, J.G. (1999), *The Encyclopedia of Taxation and Tax Policy*; PensionBee, 'Pension contributions from your limited company' at https://www.pensionbee.com/pensions-explained/pension-contributions/contributing-to-your-pension-from-your-limited-company.

[156] Article 8, Schedule 1, KiwiSaver rules, available at https://www.legislation.govt.nz/act/public/2006/0040/latest/DLM379487.html?search=sw_096be8ed81a4aa4f_home_25_se&p=1#DLM379497 last consulted on 05/02/2021.

[157] Kainga Ora, 'Check you are eligible for First Home Grant', at https://kaingaora.govt.nz/home-ownership/first-home-grant/check-you-are-eligible-for-first-home-grant/; Inland Revenue (New Zealand), 'Getting the KiwiSaver government contribution', at https://www.ird.govt.nz/kiwisaver/kiwisaver-individuals/growing-my-kiwisaver/getting-the-kiwisaver-government-contribution.

[158] New Zealand Government (2015), 'KiwiSaver $1,000 kick-start payment to cease'. Press release, published 21st May 2015. Available at https://www.beehive.govt.nz/release/kiwisaver-1000-kick-start-payment-cease.

[159] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[160] OECD (2018), 'Financial Incentives and Retirement Savings'. Available at https://www.oecd-ilibrary.org/finance-and-investment/financial-incentives-and-retirement-savings_9789264306929-en.

[161] Ibid.

[162] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[163] See, for instance, Department for Work & Pensions (UK) (2017), 'Automatic Enrolment Review 2017: Maintaining the Momentum'. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/668971/automatic-enrolment-review-2017-maintaining-the-momentum.PDF.

[164] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[165] Chetty, R. Friedman, J.N., Leth-Petersen, S., Nielsen, T. and Olsen, T. (2012), 'Active vs. Passive Decisions and Crowdout in Retirement Savings Accounts: Evidence from Denmark', *NBER Working Paper 18565*. Available at https://www.nber.org/system/files/working_papers/w18565/w18565.pdf.

[166] Ibid.

respond to tax subsidies mostly by substituting between different types of saving.[167] Because of these facts, automatic contributions have a greater impact on saving levels than subsidies do.[168]

Finally, financial incentives could be used to help auto-enrolment to close the gender gap in participation in private pensions. In several countries, governments make fixed contributions into the account in a funded pension scheme of a parent – usually the mother – either on an annual basis until the child reaches a certain age (as is done in Riester plans in Germany), or once upon the child's birth (as is done in Chile).[169] Such payments can both incentivise participation amongst women in particular, and can help to reduce the impact on women's pension savings balances of time off for caring responsibilities.[170] Financial incentives that are targeted at or particularly effective for low earners (such as fixed government contributions, which are larger in relative terms for low earners) are likely to be particularly effective in incentivising participation amongst women, since women are overrepresented amongst low earners.[171]

Box 1 The costs to employers associated with auto-enrolment schemes

In many countries, many of the costs of administering an auto-enrolment scheme fall on the employer. Occupational auto-enrolment schemes imply an administrative burden and costs to employers as they often involve additional responsibilities for employers including choosing the fund, determining whether workers are eligible, informing workers, enrolling them, acting on opt-in-opt-out requests, paying employer contributions (if any) and keeping records.[172]

The ongoing financial costs of auto-enrolment have been found to be relatively moderate. In New Zealand, the government has taken steps to minimise the cost of compliance for small and medium sized enterprises by embedding the implementation of KiwiSaver into existing payroll practices.[173] Micro, small and medium sized businesses reported spending an average of NZD 661 per year on costs related to administering auto-enrolment in 2013 compared to NZD 770 in 2009, suggesting that compliance costs decrease as auto-enrolment schemes mature.[174] In the UK, 78% of micro, 77% of small and 83% of medium sized business did not incur any additional ongoing costs of administering the auto-enrolment scheme beyond their staff's time.[175]

Mandatory schemes may imply fewer administrative responsibilities, and therefore fewer administrative costs, for employers than auto-enrolment schemes. In these systems, employers do not have ensure that opt-out requests have been acted on or to re-enrol workers that have opted-out.[176]

In some countries, including Italy, New Zealand, Poland and the United Kingdom, auto-enrolment schemes require employers to pay contributions. Employers in Canada, Lithuania and the United States can voluntarily decide to contribute to employee pension plans.[177] Contribution costs are a form of costs to employers, although they often receive favourable tax treatment.

In addition to contribution costs and ongoing administrative costs, employers may also bear initial set-up costs associated with spending time on understanding the new system and choosing a pension fund, introducing new structures within the business to administer auto-enrolment, or hiring external advisors.[178] Survey responses from employers in New Zealand suggest that implementation costs may be higher for large businesses compared to small ones, due to larger businesses having more complex human resource processes and payroll schemes.[179]

Box 2 The costs to government associated with auto-enrolment schemes

Auto-enrolment schemes also impose additional costs to governments in the form of tax and non-tax financial incentives to reduce opt-out rates, administrative costs and the cost of communication campaigns to raise awareness about auto-enrolment.

Many countries with auto-enrolment schemes incentivise contributions through favourable tax treatment of pensions relative to other saving vehicles.[180] If pension saving receives a favourable tax treatment in a country with a mandatory scheme, this is likely to imply a greater

[172] OECD (2019) Financial markets, Insurance and pensions: Inclusiveness and finance. Available at: www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm

cost to the government (in foregone taxes) than is implied by favourable tax treatment in the presence of an auto-enrolment scheme, since a mandatory scheme is highly likely to secure higher participation than an auto-enrolment scheme. Similarly, however, a given favourable tax treatment of pension saving will be more costly in terms of foregone taxes in an auto-enrolment scheme than for a voluntary opt-in scheme, since participation in an auto-enrolment scheme is likely to be greater than in a voluntary opt-in scheme.

Non-tax financial incentives are also used in auto-enrolment schemes to encourage low and middle-income earners to save. In Lithuania, the state contributes 1.5% of the average wage to pension pots in the auto-enrolment scheme and in Poland auto enrolled participants receive a PLN 250 'kick-start' contribution, as well as PLN 240 annual contribution. The government provides a 25% and 50% matching contribution in Turkey and New Zealand respectively; in New Zealand, this matching contribution is capped at NZD 521.43 each year.[181] New Zealand's KiwiSaver scheme originally included a kick-start payment of NZD $1,000 as a once-off, tax-free government contribution to each new joiner.[182] The New Zealand government ceased these payments in 2015 due to the large expenditure associated with them.[183] The cost of non-tax financial incentives is likely to be larger for auto-enrolment schemes than for other scheme types. In a mandatory scheme, non-tax financial incentives are not necessary in order to encourage participation. In a voluntary opt-in scheme, meanwhile, total expenditure on non-tax financial incentives is likely to be lower as take-up is likely to be lower than in an auto-enrolment scheme.

In the case of Lithuania, the responsibility for enrolling workers falls onto the social security institution.[184] In these cases the administrative costs associated with enrolling workers, handling opt-out requests and re-enrolling workers periodically are born by the government.

Governments also bear the cost of any communication campaigns that accompany the introduction of auto-enrolment. In the case of KiwiSaver, the New Zealand government launched extensive communications including advertising on television, radio, online and in print, in

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[168] Ibid.

[169] OECD (2021), 'Towards Improved Retirement Savings Outcomes for Women'. Available at https://www.oecd-ilibrary.org/finance-and-investment/towards-improved-retirement-savings-outcomes-for-women_f7b48808-en.

[170] Ibid.

[171] Ibid.

[172] OECD (2019) Financial markets, Insurance and pensions: Inclusiveness and finance. Available at: www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm

[173] Ibid.

[174] Inland Revenue Department (New Zealand) (2015), 'KiwiSaver evaluation: Final summary report'. Available at https://www.ird.govt.nz/about-us/publications/research-evaluation/kiwisaver.

[175] Department for Work & Pensions (2019; updated 2020), 'Automatic Enrolment evaluation report 2019'. Published 12th May 2020. Available at https://www.gov.uk/government/publications/automatic-enrolment-evaluation-report-2019/automatic-enrolment-evaluation-report-2019.

[176] OECD (2019) Financial markets, Insurance and pensions: Inclusiveness and finance. Available at: www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm

[177] OECD (2019) Financial markets, Insurance and pensions: Inclusiveness and finance. Available at: www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm

[178] OECD (2019) Financial markets, Insurance and pensions: Inclusiveness and finance. Available at: www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm

[179] Inland Revenue Department (New Zealand) (2015), 'KiwiSaver evaluation: Final summary report'. Available at https://www.ird.govt.nz/about-us/publications/research-evaluation/kiwisaver.

[180] See, e.g., OECD (2019) Financial markets, Insurance and pensions: Inclusiveness and finance. Available at: www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm

[181] OECD (2019) Financial markets, Insurance and pensions: Inclusiveness and finance. Available at: www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm

[182] Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf

[183] New Zealand Government (2015), 'KiwiSaver $1,000 kick-start payment to cease'. Press release, published 21st May 2015. Available at https://www.beehive.govt.nz/release/kiwisaver-1000-kick-start-payment-cease.

[184] OECD (2019) Financial markets, Insurance and pensions: Inclusiveness and finance. Available at: www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm

addition to distributing information packs to employers and employees.[185] Communication campaign costs may also be incurred in the case of mandatory and voluntary schemes; a number of countries have used communication campaigns to promote and raise awareness about these types of schemes.[186] The precise costs associated with a communication campaign will depend on the precise nature of the campaign in question; these costs are discussed further in section 4.3.2.

4.2.3. Transition mechanisms

Auto-enrolment schemes are typically introduced over time (rather than at once). Doing so gives employers and other actors more time to prepare to deal with the requirements and obligations imposed on them by the introduction of auto-enrolment. For instance, Poland's auto-enrolment scheme was introduced in four phases, starting with the largest employers, and subsequently taking in smaller ones.[187] Similarly, in the UK the roll-out of auto-enrolment was staged according to employer size; for existing employers (those with an existing Pay-As-You-Earn scheme[188] in April 2012)[189], the roll-out took place over nearly five years between October 2012 and April 2017.[190] In both the UK and Poland, auto-enrolment was introduced for large employers first and smaller employers subsequently.

In addition, minimum required contributions are often set at a relatively low level initially and subsequently increased. Such a design aims to avoid high contribution rates deterring participation in the first place and relies on the effects of inertia to avoid people opting out as contribution rates rise. In the UK's experience, the increases in the auto-enrolment scheme's minimum contribution rate had only a small effect on opt-out rates and saver cessation rates.[191] The escalation of default and minimum contribution rates is discussed further below in section 4.4.1.1.

4.2.4. Opt-out conditions

The ability to opt out of auto-enrolment schemes is the key feature that distinguishes these schemes from mandatory schemes. Auto-enrolment schemes exhibit a variety of opt-out conditions.

Opt-out conditions can either apply to all plans in the auto-enrolment scheme or be plan-specific. In the UK, New Zealand, and Italy, for example, opt-out conditions are system-wide. In the US, meanwhile, opt-out conditions are plan-specific.

Auto-enrolment schemes typically define an 'opt-out window' after enrolment in which individuals are permitted to opt out of the scheme. These vary quite substantially in length. In Germany and the UK, the opt-out window is one month in length after the individual is auto-enrolled; in Italy and Lithuania, it is six months long.[192] Allowing for a longer opting-out period may increase opting-out rates, but the magnitude of this effect (if it indeed exists) is unclear.[193] Contributions are not payable until the end of the opt-out window or, if they are, contributions made before the

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[185] Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf

[186] Atkinson, A., Harrison, D., Messy, F.-A., and Yermo, J. (2012), 'Lessons from National Pensions Communication Campaigns', *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 18. Available at https://www.oecd.org/finance/private-pensions/50255339.pdf.

[187] See https://www.mojeppk.pl/dla-pracownika.html.

[188] Pay-As-You-Earn (PAYE) is the system used in the UK to collect income tax and National Insurance from employment; employers in the UK are generally required to operate PAYE through their payroll. See https://www.gov.uk/paye-for-employers.

[189] Cribb, J. and Emmerson, C. (2016), 'What happens when employers are obliged to nudge? Automatic enrolment and pension saving in the UK', IFS Working Paper W16/19. Available at https://www.ifs.org.uk/uploads/publications/wps/wp1619.pdf.

[190] UK Government (2012), 'New timetable clarifies automatic enrolment starting dates'. Press release, published 25th January 2012. Available at https://www.gov.uk/government/news/new-timetable-clarifies-automatic-enrolment-starting-dates.

[191] Vanguard and Nest Insight (2020), 'How the UK Saves: Effects of the Second Savings Rate Increase'. Available at http://nestinsight.org.uk/wp-content/uploads/2020/06/How-the-UK-Saves-the-effects-of-the-second-savings-rate-increase.pdf.

[192] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[193] Ibid.

individual opts out are refunded.[194] The first option simplifies the administration of the scheme but delays the start of contributions.[195] Poland's PPK scheme and state-based auto-IRAs in Illinois and Oregon (in the USA) have no limit on when opt-outs can occur; contributions to PPKs start upon enrolment while contributions to state-based auto-IRAs begin one month after enrolment.[196]

After the opt-out window, auto-enrolment schemes in some countries – including the UK, Germany, Poland, and the US – allow individuals to stop participating at any time they wish. Auto-enrolment schemes in other countries – such as Canada, Italy, Lithuania, and New Zealand – do not.[197] Permitting individuals to exit the scheme after the opt-out window may see more opt-outs but allows individuals flexibility in the event their financial and life circumstances change.

In a number of countries that have introduced auto-enrolment, those who opt out from the auto-enrolment scheme are re-enrolled at regular intervals (such as each year, every three years, etc.). Countries where this is the case are Chile, Lithuania, Poland, Turkey, the UK and Quebec.[198] In the USA, employers are permitted to perform auto-enrolment 'sweeps' in which they automatically enrol all eligible employees, including existing employees and employees who have opted out before, into a 401(k) plan(s) at the default contribution rate. Such sweeps can be performed annually or as one-offs.[199] Re-enrolling those who opt-out can help to reduce cumulative opt-out rates.[200]

In LE Europe's view, a clear and transparent opt-out process for an auto-enrolment scheme is also likely to foster trust in the pension scheme. The importance of trust for the success of an auto-enrolment scheme is discussed in section 3.3.1.

4.3. Accumulation phase: Fund choice

4.3.1. Number of options available

When introducing a pension saving mechanism that involves pension savers choosing a fund in which to save, policymakers must decide how much choice they believe that it is desirable for savers to have in the fund market. This section discusses different approaches to this issue and the relevant economic literature.

One design allows savers to choose both their fund and their fund provider. In such a design, policymakers must consider how much latitude to allow savers in these choices. Greater choice in markets is often seen as advantageous because it can increase competition, which in turn should reduce prices and improve quality, and because it can facilitate a greater degree of alignment between the options on offer and the diverse preferences of pension savers.[201] For these reasons, a policymaker might want to encourage the provision of a large amount of choice for savers in the pension fund market.

One way to allow a large degree of choice for savers in the fund market is to impose only relatively limited entry requirements for funds and fund managers. This is intended to allow a large number and diversity of funds to enter the market. Such an approach was initially adopted in Sweden for its compulsory, contribution-neutral premium pension system (see Sweden country fiche in section 12.15 of Annex 3), for instance. Initially, funds had only to meet EU directives on portfolio diversification (though exemptions were applied), to commit to give fee rebates to the Premium Pension Authority (since replaced by the Swedish Pensions Agency), and to allow savers to switch

[194] Ibid.

[195] Ibid.

[196] Ibid.

[197] Ibid.

[198] Ibid.

[199] See US country fiche.

[200] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[201] Loewenstein, G. (1999), 'Is More Choice Always Better?'.

funds without a fee. When fund choices could first be made in 2000, there were 465 funds to choose from; the number of funds rose to around 800 funds by late 2018.

However, limited entry requirements can allow inappropriate or bad-faith offerings onto the market. In Sweden, a number of scandals occurred in the premium pension system in which fraud and mis-selling were alleged.[202] For instance, in the case of fund provider Falcon Funds, around SEK 1 billion[203] of capital went missing while capital was, according to BEUC, invested in companies connected to Falcon Funds' owners.[204] The Swedish Pensions Agency removed Falcon Funds from the system and has recovered around a third of savers' missing money.[205] Allra was a large fund provider that used telemarketing extensively and gave what has been described as 'misleading'[206] advice to potential customers.

The marketing of premium pension funds over the telephone has since been banned.[207] Partly in response to these episodes, in 2018 additional requirements were imposed on fund managers in the premium pension system and providers had to submit or (for those already operating) re-submit an application to the Swedish Pensions Agency to obtain permission to manage a premium pension fund (see Sweden country fiche in section 12.15 of Annex 3).[208] The additional requirements imposed in the reform included requirements that fund providers manage at least 500 million SEK of assets outside the premium pension market, that they have three years of business history and that they adhere to minimum requirements with respect to sustainability.[209]

In addition, in the first decade of the premium pension system's operation, it became increasingly common for some savers to pay an external 'mass-market' advisor to make investment choices for their premium pension capital.[210] By 2010 around 10% of savers were doing so.[211] Advisors reached customers through telemarketing and made investment choices on an automated basis across many accounts.[212] Complaints about these advisors and their practices grew and, in 2011, the Swedish government ordered the Swedish Pensions Agency to change the premium pension system's online interface so as to prevent the automated trading employed by the mass-market advisors,[213] presumably in a bid to curtail the activities of these advisors that gave rise to complaints. This intervention saw the number of transactions in the system fall by 75%.[214] As noted above, telemarketing was later banned.

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[202] Hagen, J. (2020) in Better Finance, 'Pension Savings: The Real Return'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Edition.pdf.

[203] Tuck, N. (2020), 'Swedish Pensions Agency secures additional SEK 368m for Falcon Funds victims', *European Pensions*. Published 24th November 2020. Available at https://www.europeanpensions.net/ep/Swedish-Pensions-Agency-secures-additional-SEK-368m-for-Falcon-Funds-victims.php.

[204] BEUC, 'Falcon Funds', *The Price of Bad Advice*. Available at https://www.thepriceofbadadvice.eu/scandal/falcon-funds/.

[205] Tuck, N. (2020), 'Swedish Pensions Agency secures additional SEK 368m for Falcon Funds victims', *European Pensions*. Published 24th November 2020. Available at https://www.europeanpensions.net/ep/Swedish-Pensions-Agency-secures-additional-SEK-368m-for-Falcon-Funds-victims.php.

[206] BEUC, 'Allra', *The Price of Bad Advice*. Available at https://www.thepriceofbadadvice.eu/scandal/allra/.

[207] Boyd, J. (2018), 'PPM changes confirmed by Swedish Parliament', *International Investment*. Published 4th June 2018. Available at https://www.internationalinvestment.net/internationalinvestment/news/3719011/ppm-changes-confirmed-swedish-parliament.

[208] Hagen, J. (2020) in Better Finance, 'Pension Savings: The Real Return'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Edition.pdf..

[209] Pensionsmyndighten (Swedish Pensions Agency), at https://www.pensionsmyndigheten.se/nyheter-och-press/pressrum/nytt-avtal-klart-for-premiepensionens-fondtorg.

[210] See Swedish Social Insurance Inspectorate (ISF) (2012), 'An Evaluation of External Financial Advisors in the Premium Pension System', *ISF Report 2012:16* and Anderson, A. and Robinson, D.T. (2018), 'Who feels the nudge? Knowledge, self-awareness and retirement savings decisions', *National Bureau of Economic Research Working Paper 25061*, available at https://www.nber.org/system/files/working_papers/w25061/w25061.pdf.

[211] Swedish Social Insurance Inspectorate (ISF) (2012), 'An Evaluation of External Financial Advisors in the Premium Pension System', *ISF Report 2012:16*.

[212] Robinson, D.T. (2018), 'Who feels the nudge? Knowledge, self-awareness and retirement savings decisions', *National Bureau of Economic Research Working Paper 25061*, available at https://www.nber.org/system/files/working_papers/w25061/w25061.pdf.

[213] Ibid.

[214] Ibid.

Moreover, in practice more choice is not always better; in some cases, an excess of choice can fail to bring benefits or even be harmful. There are three types of cost associated with an excess of choice:[215, 216]

- time costs – choosing between alternatives takes up time, especially when the choice is a consequential or complicated one, and this reduces the amount of time available for other activities and pursuits;
- error costs – an excess of choice can magnify the importance of various cognitive biases that lead people to make sub-optimal decisions. A number of studies have found that people tend to increase their reliance on simple heuristics and reduce the number of factors that they consider as complexity grows (for instance, people exhibit a general tendency to revert to decision rules such as 'choose the cheapest one' when confronted by complexity, thereby neglecting other factors that affect the suitability of different options for them). An excessive amount of choice can encourage people to disengage from the decision-making process. In addition, people exhibit a tendency to overvalue immediate gains relative to gains in the future (so-called 'present bias'). Finally, many people exhibit risk aversion and loss aversion when presented with uncertainty; and,
- psychic costs – having to make decisions can lead to feelings of anxiety and regret. This anxiety – the fear of making the 'wrong' decision – is heightened with respect to decisions in which decision-makers perceive that they are not well-placed to make the decision and decisions in which there are trade-offs involved in choosing between different options. People often experience regret when they perceive that their decision meant they did worse than they otherwise could have. Hindsight bias, the tendency for people to believe after the fact that something was more predictable than it in fact was at the time, tends to encourage these regrets.

All of these problems are likely to be exacerbated when choosing a fund in the context of retirement saving, since:[217]

- there is a large degree of uncertainty;
- the subject matter is complex and many people making these decisions do not have a sophisticated understanding of it. Therefore, taking an informed decision would require the investment of a significant amount of time and effort;
- there are trade-offs between the different alternatives (in the case of pensions, there is, for instance, often a trade-off between risk and expected return); and,
- the costs of making a 'wrong' choice are potentially very high.

There is empirical evidence that a larger offering of funds in an occupational pension scheme could increase opt-out rates because of choice overload. Looking at 401(k) schemes offering between two and 59 funds, Iyengar et al. (2004) found that, after controlling for employee and plan characteristics, participation was negatively associated with the number of funds offered.[218] Iyengar et al. suggested that the existence of a default fund could help to reduce the impact of choice overload in fund choice.[219]

In Sweden, further to the 2018 reforms described above, a new agency will be established that will procure funds for the premium pension system (see Sweden country fiche in section 12.15 of Annex 3). The intention of procuring funds is to select high-quality, cost-effective funds while maintaining sufficient diversity in investment strategy, risk level and fund manager as to preserve

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[215] Loewenstein, G. (1999), 'Is More Choice Always Better?'.

[216] Iyengar, S.S. and Lepper, M.R. (2000), 'When Choice is Demotivating: Can One Desire Too Much of a Good Thing?', *Journal of Personality and Social Psychology*, 2000, Vol. 79, No. 6, 995-1006.

[217] See, for instance, Iyengar, S.S. and Lepper, M.R. (2000), 'When Choice is Demotivating: Can One Desire Too Much of a Good Thing?', *Journal of Personality and Social Psychology*, 2000, Vol. 79, No. 6, 995-1006.

[218] Iyengar, S., Jiang, W. and Huberman, G. (2004), 'How much choice is too much? Contributions to 401(k) retirement plans', in O. Mitchell and S. Utkus (eds), *Pension Design and Structure: New Lessons from Behavioral Finance*. Note that the subject of this study was not 401(k) schemes with auto-enrolment.

[219] Ibid.

freedom of choice.[220] The number of funds available is likely to remain high, at around 150-200.[221] A significant degree of choice will, therefore, remain. However, the rationale for procuring funds is to remove some of the risk associated with savers choosing between a large number of funds.[222] There is already procurement of providers by social partners in Sweden's quasi-mandatory occupational pension system.[223]

In addition, there exist potential advantages to limiting the number of fund providers in the market in the form of economies of scale. When there are fewer funds in the market but these funds are larger, these funds may be able to achieve lower costs (relative to their size) because of economies of scale. These lower costs may be passed on to pension savers in the form of lower fees. One example of how greater size can be used to reduce costs can be seen in Nest's 'internal market' between its retirement date funds. Nest is a low-cost provider in the UK's auto-enrolment scheme, established by the UK government (see UK country fiche in section 12.16 of Annex 3 for further details); it is a large provider, with approximately 8.5 million members as of 2019.[224] Nest's retirement date funds have different target dates and therefore at a given moment some will be in different phases from others; these different phases entail different investment strategies. Some funds will be moving to a growth phase in which they will reduce their holdings of income-seeking assets (such as bonds) and increase their holdings of growth-seeking assets (such as equities); some funds will be moving to a consolidation phase and will shift their holdings in the opposite direction. The 'internal market' allows the exchange of assets between different Nest funds without incurring transaction costs such as brokerage fees.[225] ATP, the only provider in Denmark's statutory contributory pension scheme, achieves very low administrative costs through economies of scale. In 2006, its administrative expenses equalled approximately US$5.50 per account.[226] Since the ATP scheme is mandatory and ATP has no competitors, it also does not have large marketing expenses.[227] However, large schemes are not guaranteed to yield lower costs;[228] increased size can engender *dis*economies of scale because of, for instance, principal-agent problems (problems that occur when one actor delegates a task to another actor whose preferences differ from theirs and whose actions they cannot entirely control) or difficulties in communication and coordination in large institutions.

In several auto-enrolment systems, employers choose fund providers; their employees then choose between the funds (with different investment strategies) offered by that provider. This is the case in, for instance, the UK's auto-enrolment scheme, for PRPPs in Canada, and for PPKs in Poland. Assigning responsibility of choosing a provider on employers, reduces the decision burden on savers, many of whom are not well-placed to make such decisions, but increases the obligations placed on employers by the auto-enrolment mechanism.

In choosing a provider, there are several factors for the employer to consider. One of these is cost, both for the employer and for the employees as savers.[229] Another is the administrative burden that the scheme places on employers; larger schemes will tend to place a smaller burden on

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[220] Regeringskansliet (2021), 'Preciserad överenskommelse om det reformerade premiepensionssystemet'. Published 17th February 2021. Available at https://www.regeringen.se/pressmeddelanden/2021/02/preciserad-overenskommelse-om-det-reformerade-premiepensionssystemet/.

[221] Ibid.

[222] Ibid.

[223] See, for instance, Bovenberg, A. L., Cox, R., and Lundbergh, S. (2015), 'Lessons from the Swedish Occupational Pension System: Are Mutual Life Insurance Companies a Relevant Model for Occupational Pensions in the Netherlands'. Design Paper - *Netspar Industry Paper Series,* Vol. 45. NETSPAR.

[224] Jones, R. (2019), 'This pension scheme has 8m members – and ethical savers do best', The Guardian. 15th November 2019. Available at https://www.theguardian.com/money/2019/nov/15/Nest-pension-scheme-ethical-savers-climate.

[225] NEST (2013), 'Looking after members' money – NEST's investment approach'. Available at https://www.Nestpensions.org.uk/schemeweb/NestWeb/includes/public/docs/Developing-and-delivering-NESTs-Investment-Approach%2CPDF.pdf.

[226] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark', World Bank Policy Research Working Paper 4505. Available at http://documents1.worldbank.org/curated/en/273361468026054863/pdf/wps4505.pdf.

[227] Ibid.

[228] House of Commons Work and Pensions Committee (UK) (2013), 'Improving governance and best practice in workplace pensions'. Sixth Report of the Work and Pensions Committee. Available at https://publications.parliament.uk/pa/cm201213/cmselect/cmworpen/768/76802.htm.

[229] The Pensions Regulator, 'What to look for in a pension scheme'. Available at https://www.thepensionsregulator.gov.uk/en/employers/new-employers/im-an-employer-who-has-to-provide-a-pension/choose-a-pension-scheme/what-to-look-for-in-a-pension-scheme.

employers than smaller ones since they generally handle a greater number of administrative tasks.[230] Another factor is the governance of the providers' funds; in the UK, employers are encouraged to check that a provider's offering is regulated by the Financial Conduct Authority, the UK financial sector's conduct regulator, or has been independently reviewed to ensure its governance is of a high standard.[231] Finally, different providers' offerings can use different tax relief methods; in the UK, tax relief on pension contributions can be applied in two different ways, and each of these has different implications for those on lower and higher incomes.[232] Different tax relief methods will therefore be suitable for different profiles of employees. Some providers will accept only those companies with a minimum number of employees or with staff with a minimum level of income.[233]

With respect to the employee's choice between the different fund offerings of the provider selected by their employer, the issues described above about the benefits of greater choice in catering to diverse preferences and the limitations of savers to make such decisions apply. In Canada, savers in any given PRPP plan are given the choice of at most six investment options;[234] the rationale for this limitation is to prevent an overload of choice.[235]

4.3.2. Information and education

Many consumers have low financial literacy in general.[236] Research shows that low financial literacy is prevalent even in countries with well-developed financial markets.[237] Levels of financial literacy also vary within societies. For instance, in many countries women tend to have lower financial literacy than men.[238] Furthermore, surveys indicate that pensions and retirement savings plans are amongst the financial products that are least well understood by consumers.[239] Meanwhile, choosing a pension fund is a complex decision with potentially very significant consequences that requires intertemporal decision-making. These facts taken together suggest that provision of financial information and education to individuals is desirable to support them in making decisions about choice of pension funds, especially when a pension system involves more individual choice in private pensions and the public pension offers only limited benefits.[240] The absence of such information and education in combination with the differences in financial literacy in societies is likely to create and exacerbate differences in pension outcomes. However, while better information and education is desirable, in LE Europe's view it is unlikely to be a panacea and is likely to need to be supported by other policy tools described in this report, such as appropriate default options.

Policy responses to low financial literacy – including, but not limited to, the provision of financial information and education – are of particular significance given that women have, on average, lower financial literacy than men and already experience worse pension provision on average.[241] An OECD publication on improving retirement savings outcomes for women advocated for targeted communications aimed at women specifically, reflecting:

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[230] Ibid.

[231] Ibid.

[232] Ibid.

[233] Ibid.

[234] Office of the Superintendent of Financial Institutions (Government of Canada) (2018), 'Pooled Registered Pension Plans - Guide for Ontario Members'. Available at https://www.osfi-bsif.gc.ca/Eng/pp-rr/ppa-rra/prpp-rpac/Pages/prpp-rpac_on.aspx.

[235] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[236] See, for instance, OECD (2005), 'Improving Financial Literacy: Analysis of Issues and Policies'. Available at https://www.oecd.org/finance/financial-education/improvingfinancialliteracyanalysisofissuesandpolicies.htm.

[237] Lusardi, A. and Mitchell, O.S. (2011), 'Financial literacy around the world: an overview', *Journal of Pension Economics & Finance*, Vol.10, Issue 4, October 2011, pp. 475-508.

[238] Ibid.

[239] OECD (2005), 'Improving Financial Literacy: Analysis of Issues and Policies'. Available at https://www.oecd.org/finance/financial-education/improvingfinancialliteracyanalysisofissuesandpolicies.htm

[240] Ibid.

[241] OECD (2021), 'Towards Improved Retirement Savings Outcomes for Women'. Available at https://www.oecd-ilibrary.org/finance-and-investment/towards-improved-retirement-savings-outcomes-for-women_f7b48808-en.

- the fact that differences in participation and contribution levels are likely the main drivers within the pension system of differences in pension outcomes between men and women (with differences in risk tolerance and other preferences likely playing a smaller role);
- gender differences in behaviours and social preferences; and,
- the implications of life events, such as having children and taking parental leave.[242]

A 2012 OECD report called for National Pension Communication Campaigns (NPCCs, broad-based communication campaigns explaining pension policy) to accompany major pension system reforms, including the introduction of auto-enrolment.[243] According to the report, these NPCCs should be accompanied by initiatives to raise financial literacy more broadly. The report argues that NPCCs are more effective when they are focused in their message, when they target specific groups, where they both make use of the press and of more innovative communication channels such as social media, and when they have a sufficient budget.[244] NPCCs have accompanied the introduction of a number of existing auto-enrolment schemes, including in Italy, New Zealand and the UK.[245]

As with the auto-enrolment mechanism itself, it is important that NPCCs, and other interventions aimed at improving pension awareness and understanding such as the launch of a pension tracking system, should be designed with behavioural insights in mind. Interventions should also be a part of wider local and national strategies aimed at improving financial literacy to benefit from synergies and minimise duplication of efforts.

The nature and impact of NPCCs accompanying the introduction of auto-enrolment has varied. In Italy, the campaign took place in the first six months of 2007, starting in January of that year alongside the introduction of auto-enrolment, and aimed to publicise the new auto-enrolment scheme and raise pension awareness generally. It made use of a dedicated website, a call centre, public events, TV and radio broadcasts, the press and paper materials. 60 to 70% of the population were aware of the campaign, and during the campaign awareness levels rose by 10%.[246] The use of TV and radio was found to be particularly effective, but the campaign organisers (the Ministry of Labour and the Presidency of the Council of Ministers) expressed the view that the campaign would have benefited *inter alia* from a clearer definition of its goals and of how it was to be evaluated, and from being launched a longer time ahead of the introduction of the auto-enrolment's scheme.[247] In New Zealand, the Retirement Commission ran a communication and financial education campaign aimed at improving employees' financial literacy alongside the introduction of its auto-enrolment KiwiSaver scheme. The campaign was particularly targeted at particular sectors identified as ones in which employees tended to have lower levels of financial literacy, including the manufacturing and retail sectors.[248] A survey found that more than four-fifths of the population associated the KiwiSaver brand and the Sorted website, launched as part of the campaign to provide consumers with financial information, with 'helping me with my money matters'.[249] In the UK, the Department for Work & Pensions (DWP) launched a campaign alongside the phased roll-out of auto-enrolment from 2012. Communications were targeted by behaviours and financial literacy rather than by demographic characteristics (e.g., age); according to the DWP, this was 'invaluable'.[250] The messaging conveyed in the UK's NPCC was informed by behavioural economics; for instance, the phrases 'I'm in' and 'We're all in' messages sought to create a positive social norm around participation and were found to be effective.[251] The campaign used a range of modes of communication, and the DWP said it was important to tailor the mode of communication to the

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[242] Ibid.

[243] Atkinson, A., Harrison, D., Messy, F.-A., Yermo, J. (2012), 'Lessons from National Pension Communication Campaigns', *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 18. Available at https://www.oecd.org/pensions/private-pensions/50255339.pdf.

[244] Ibid.

[245] Ibid.

[246] Ibid.

[247] Ibid.

[248] Ibid.

[249] Ibid.

[250] Ibid.

[251] See, for instance, Department for Work & Pensions (UK) (2013), 'Pensions Portfolio: Communications tracking research'. November 2012; published 30th May 2013. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/203895/pensions-later-life-communications-research-november-2012.pdf.

target group.[252] The NPCCs that accompanied the introduction of auto-enrolment in Italy, New Zealand and the UK are discussed further in their respective case studies below.

NPCCs involve a cost to governments that run them. The size of this cost will depend *inter alia* on the length of the campaign and the channels used to promote it. The six-month NPCC that accompanied the introduction of auto-enrolment Italy had a budget of €17 million, funded by the state.[253] New Zealand's NPCC, meanwhile, has an annual budget of NZD 2 million per year.[254] The UK government spent just under £18 million on advertising for Pension Wise, a service providing free guidance on decumulation matters, in its first three years of operation.[255] The campaign to promote auto-enrolment involved a spend of around £25 million in those same years.[256]

Financial literacy and pension awareness are also relevant at the decumulation stage. Without sufficient financial education, and absent mechanisms such as compulsory annuitisation, people often withdraw their pensions too quickly – such that they risk outliving their resources. The UK's Financial Conduct Authority published data showing that in 2019/20, 42% of regular withdrawals from UK pension pots were at an annual rate of at least 8% of the pot value.[257] Such high withdrawal rates were more commonly observed in smaller pension pots. Experts warned that this was 'not sustainable'.[258] A lack of financial literacy can, therefore, undermine the positive effects of introducing auto-enrolment.

4.3.3. Fund advertising

Advertising is typically thought to serve two purposes: (i) persuasion – i.e., the altering of savers' preferences - and (ii) the communication of information. The extent to which advertising in general is persuasive rather than informative, or vice-versa, is the subject of debate. Similarly, advertising by funds plausibly conveys some useful information to individuals but it also could be persuasive or even misleading. For instance, placing undue weight on the immediate past performance could be used to attract less financially literate individuals. There is a role for regulation to help ensure that advertising provides useful information to individuals, especially given the information asymmetry that prevails in most relationships between fund providers and individuals. The regulation of advertisement by fund providers varies between countries, including between EU Member States. EU law establishes minimum standards for the regulation of misleading advertising practices in Member States but allows further regulation by individual Member States.[259] Both the content and mode of advertisement can be regulated. Fund providers could be forbidden from promising higher returns than competitors.[260] In Sweden, as described above, telemarketing was banned in 2018 in the wake of scandals. This ban followed the introduction in 2014 of a requirement that the sale of advice or management services in connection with the premium pension be accompanied by written confirmation from the client.

4.3.4. Default funds

In all existing auto-enrolment systems, providers have or are required to have a default fund into which the contributions of those who participate but do not make an active choice of funds are

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[252] Atkinson, A., Harrison, D., Messy, F.-A., Yermo, J. (2012), 'Lessons from National Pension Communication Campaigns', *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 18. Available at https://www.oecd.org/pensions/private-pensions/50255339.pdf.

[253] Atkinson, A., Harrison, D., Messy, F.-A., Yermo, J. (2012), 'Lessons from National Pension Communication Campaigns', *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 18. Available at https://www.oecd.org/pensions/private-pensions/50255339.pdf.

[254] Ibid.

[255] Espadinha, M. (2017), 'Government spent £18m on Pension Wise adverts', *FT Adviser*. 17th November 2017. Available at https://www.ftadviser.com/pensions/2017/11/17/government-spent-18m-on-pension-wise-adverts/.

[256] Ibid.

[257] Financial Conduct Authority (2020), 'Retirement income market data 2019/20'. Published 29th September 2020. Available at https://www.fca.org.uk/data/retirement-income-market-data.

[258] Austin, A. (2020), 'Warning sounded as 42% of pensions raided at 'unsustainable' levels', *FT Adviser*. Published 30th September 2020. Available at https://www.ftadviser.com/pensions/2020/09/30/warning-sounded-as-42-of-pensions-raided-at-unsustainable-levels/.

[259] European Commission, 'Misleading and comparative advertising directive' [webpage]. Available at https://ec.europa.eu/info/law/law-topic/consumers/unfair-commercial-practices-law/misleading-and-comparative-advertising-directive_en.

[260] See Mike, K. and Szalai, Á. (2008), 'Public information on pension systems and pension system changes', *Peer Review in Social Protection and Social Inclusion 2008*. Available at https://ec.europa.eu/social/BlobServlet?docId=8393&langId=en.

invested.[261] In schemes where savers can choose both a provider and a fund, such as New Zealand's auto-enrolment scheme and Sweden's contribution-neutral compulsory system, there are also default providers for individuals who do not make an active choice of provider. This section discusses the role of default funds and desirable features for a default fund. In doing so it considers real-world default funds.

The existence of a default fund removes the *need* for people to make complex, consequential and potentially time-consuming fund choices if they wish to participate in the auto-enrolment scheme; the existence of a default fund may, therefore, reduce opt-out rates. However, those who wish to make an active choice are able to do so. The default fund serves two types of savers: it serves both those who do not make a conscious choice of fund and those who make a conscious decision to adhere to the default fund. Those who do not make a conscious choice of fund may fail to do so because they forget to do so, because they are not aware of opportunity to do so, or because they are unable to do so because they lack the requisite financial knowledge.

There are several reasons for which savers may make a conscious decision to adhere to a default fund. Firstly, there exists the phenomenon of status quo bias, a tendency to stick to the option implied by doing nothing or by continuing with a current or previous choice.[262] This phenomenon is usually considered a consequence of loss aversion, i.e., the tendency to weigh (potential) losses more heavily than (potential) gains of the same magnitude.[263] In addition, savers may assume that the selection of a fund or provider as the default implies an endorsement of that fund or provider by the government or the competent authority.[264] Implicit recommendations of this sort seem likely to be more impactful on decision-makers' choices when the latter are *ex ante* uncertain about the choice,[265] as may be the case when choosing a pension fund (for the reasons described above). Finally, and as mentioned above, the complex issues involved in choosing a pension fund mean that making a decision can require a significant amount of time and cognitive effort. Given these issues, savers may consciously choose the default fund to save from investing this time and effort in researching alternatives. If and when savers observe that the default option is popular, these mechanisms may be reinforced by herding effects as they may infer information about the soundness of the default as a choice from its popularity.

There is empirical evidence that savers often choose (consciously or unconsciously) a default fund if it is present. Around 80% of employees of large companies auto-enrolled into 401(k) plans in the USA were found to have chosen both the default contribution rate and the default investment fund initially; this proportion declined over time to around 50% after three years.[266] A 2004 study examining Sweden's premium pension system found that a third of people remained in the default fund in 2000, the year the system became active.[267] This was despite the fact that the government had encouraged active choice of funds, and had launched an advertising campaign to that effect. The Swedish government has since stopped encouraging active choice, and the proportion of savers making an active fund choice has been significantly lower since 2000.[268] In recent years, only around 1% of new savers have made an active choice.[269]

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[261] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[262] See, for instance, Samuelson, W. and Zeckhauser, R. (1988), 'Status Quo Bias in Decision Making', *Journal of Risk and Uncertainty*, 1: 7-59. Available at https://scholar.harvard.edu/files/rzeckhauser/files/status_quo_bias_in_decision_making.pdf.

[263] See, for instance, Kahneman, D., Knetsch, J.L. and Thaler, R.H. (1991), 'Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias', *The Journal of Economic Perspectives*, 5(1), pp.193-206, Winter 1991. Available at https://scholar.princeton.edu/sites/default/files/kahneman/files/anomalies_dk_jlk_rht_1991.pdf.

[264] See, for instance, Johnson, E.J. (2007), 'Decisions Not Made: How Defaults and Loss Aversion Affect Customers', BeFi Web Seminar for 26th September 2007. Available at https://www.rand.org/content/dam/rand/www/external/labor/centers/befi/resources/pdf/web_seminars/ws_2007_09_26.pdf.

[265] See, for instance, McKenzie, C.R.M., Liersch, M.J. and Finkelstein, S.R. (2006), 'Recommendations Implicit in Policy Defaults', *Association for Psychological Science Research Paper*, vol 17 no. 5. Available at https://pages.ucsd.edu/~mckenzie/McKenzieetal2006PsychSci.pdf.

[266] Choi, J., Laibson, D., Madrian, B. and Metrick, A. (2004), 'For better or worse: default effects and 401(k) savings behaviour', in D. Wise (ed.), *Perspectives in the Economics of Aging*.

[267] Cronqvist, H. and Thaler, R. (2004), 'Design choices in privatized social-security systems: learning from the Swedish experience', *American Economic Review*, 94(2), 424–8.

[268] Cronqvist, H., Thaler, R. and Yu, F. (2018), 'When Nudges Are Forever: Inertia in the Swedish Premium Pension Plan', *AEA Papers and Proceedings Vol. 108*. May 2018.

[269] Ibid.

The desirable features of a default fund (resulting from its role in an auto-enrolment scheme) are the following:

- low fees
- the investment of savers' assets in a manner suitable according to their age;
- transparency; and,
- ease of entrance and exit.

Default funds should have low fees – including management fees, contribution fees, fees for switching funds, entry fees, etc. – in order to minimise the erosion of savers' contributions by such charges. One way in which low fees in default funds can be achieved is default provision through a not-for-profit entity. AP7, the default provider in Sweden's contribution-neutral compulsory premium pension system, is a not-for-profit entity set up by the Swedish government. Such a design means that profits can be used to reduce charges to savers[270] and avoids potential conflicts between a profit-seeking goal on the part of the fund provider and the interests of savers. Governance issues, including with respect to default funds, are discussed in further detail in section 4.4. A default provider could also use its large size to exploit economies of scale. Nest, the low-cost provider established by the UK government, is not a default provider but serves a large number of savers in the UK's auto-enrolment scheme; its large size facilitates its use of an 'internal market' to reduce transaction costs in its investment activities (as discussed in section 4.3.1 above).

Default funds should also invest savers' assets in a manner suitable according to their age. It is important that the default fund delivers good investment outcomes so that less engaged, less informed people who are auto-enrolled do not lose out.[271] When deciding on an investment strategy, there is generally a trade-off between risk and return that must be managed.

At present, Italy is the only country in which default funds offer a guaranteed investment return.[272] The appropriate trade-off between risk and return depends on the saver's age; it is harder to recoup a loss the closer one is to retirement when it is incurred. Accordingly, life-cycle investment strategies begin with a larger holding of riskier, growth-seeking assets (such as equities) and reduce their exposure to risky asset classes over time as a certain year in the future, chosen to align with the saver's retirement age, approaches.[273] Life-cycle investment strategies are employed by the default funds in many countries with auto-enrolment schemes, including Lithuania, Poland, in the UK in the case of the government-established provider Nest, and Canada.[274] In the latter case, default funds may employ either a life-cycle or a balanced investment strategy.[275] AP7 Såfa, the default fund in the premium pension system in Sweden, also employs a life-cycle investment strategy.[276] The default retirement date funds of Nest (there are multiple funds corresponding to different retirement dates), a large provider in the UK set up by the government, have a 'foundation' phase for the youngest savers that precedes the 'growth' and 'consolidation' phases in the life cycle strategy. This phase seeks to preserve the real value of savings while avoiding large shocks. The inclusion of this phase is motivated by the finding that young savers may stop saving for their pension if they see a loss in the value of their retirement savings, even if that loss is one-off or short-lived. The 'foundation' phase seeks to avoid such losses in order to get savers 'into the savings habit'.[277] Life-cycle investment strategies are discussed further in section 4.4.2 below.

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[270] Tuck, N. (2020), 'Sweden's AP7 reduces equity fund management fee', *European Pensions*. Published 22nd December 2020. Available at https://www.europeanpensions.net/ep/Sweden-AP7-reduces-equity-fund-management-fee.php.

[271] See, for instance, Byrne, A, Blake, D., Cairns, A. and Dowd, K. (2007), 'Default funds in U.K. defined-contribution plans', *Financial Analysts Journal*, 63(4), 40-51.

[272] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[273] Schroders (2011), 'Life Cycle Funds'. Available at https://www.schroders.com/en/au/institutions/insights/white-papers/life-cycle-funds1/.

[274] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[275] Ibid.

[276] See AP7, 'AP7 Såfa'. Available at https://www.ap7.se/english/ap7-safa/.

[277] NEST (2013), 'Looking after members' money – NEST's investment approach'. Available at https://www.Nestpensions.org.uk/schemeweb/NestWeb/includes/public/docs/Developing-and-delivering-NESTs-Investment-Approach%2CPDF.pdf.

The appropriate investment strategy for default funds depends also on the role of the scheme within the country's pension system more broadly. The investment strategy of the default fund in Sweden's premium pension scheme, AP7's Såfa, is explicitly related to the interaction between Sweden's premium pension and the income pension; the premium pension and the income pension together form the universal state pension.[278] The risk associated with the AP7 Såfa fund is intended to be considered together with the risk associated with the income pension, since the premium pension and the income pension are intended to complement each other for all citizens.[279] The income pension is linked to income growth in Sweden, so the premium pension is exposed to global equities in order to diversify savers' exposure geographically.[280]

The presence and nature of a default investment strategy can have implications for the gender difference in retirement outcomes. Men and women (in aggregate) exhibit different personal risk preferences in relation to investment decisions and retirement outcomes; women tend to exhibit greater risk aversion in these areas than men do.[281] Women have lower levels of financial literacy levels than men do, on average.[282] The MInd the GAp in PEnsions (MIGAPE) project found that women reported less active information-seeking in relation to pensions than men.[283] There is empirical evidence to suggest that these differences between men and women have implications for the decisions they make about investment strategies when saving for retirement, with women making more conservative investment decisions than men with similar levels of financial literacy and income or wealth.[284] The presence of a default investment strategy that does not conform to women's lower average levels of risk tolerance and financial literacy – such as, for instance, a life-cycle strategy, as opposed to a conservative strategy – can help to reduce any impact of these gender differences in investment decisions on retirement outcomes,[285] since both men and women are likely to adhere to a default when it is present.

Transparency about charges, how savers' money is invested, and investment performance is especially important for default funds, given the large number of savers they typically serve and the role they play in managing the capital of people who have not actively chosen to join them. It is particularly important that this information is presented in a way that is simple and easy to understand, since members of a default fund may on average have relatively low financial literacy. In New Zealand's KiwiSaver scheme, one of the criteria on which default providers are selected by the government is the extent to which they provide investment education to default members.[286]

Finally, it is important that a default fund is easy to enter and exit. In the case of a significant number of savers, their joining the default fund is driven by inertia. Given this, friction caused by administrative burdens when joining the default fund could increase opt-out rates. Respondents to a consultation by an advisory body to the UK's Department for Work & Pensions noted that charging a joining fee for savers risked increasing opt-out rates in an auto-enrolment scheme.[287]

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[278] AP7, 'AP7 Såfa'. Available at https://www.ap7.se/english/ap7-safa/.

[279] Ibid.

[280] Ibid.

[281] OECD (2021), 'Towards Improved Retirement Savings Outcomes for Women'. Available at https://www.oecd-ilibrary.org/finance-and-investment/towards-improved-retirement-savings-outcomes-for-women_f7b48808-en.

[282] Ibid.

[283] MIGAPE project (2021), 'The future of Gender Pension Gaps: Main findings from the MIGAPE project'. March 2021. Available at http://www.migape.eu/pubs/MIGAPE%20The%20future%20of%20Gender%20Pension%20Gaps.pdf.

[284] OECD (2021), 'Towards Improved Retirement Savings Outcomes for Women'. Available at https://www.oecd-ilibrary.org/finance-and-investment/towards-improved-retirement-savings-outcomes-for-women_f7b48808-en.

[285] Ibid.

[286] Ministry of Business, Innovation and Employment (New Zealand) (2014), 'Existing default KiwiSaver provider arrangements', available at: https://www.mbie.govt.nz/business-and-employment/business/financial-markets-regulation/kiwisaver/existing-default-kiwisaver-provider-arrangements/. See also New Zealand country fiche.

[287] Personal Accounts Delivery Authority (2008), 'Building personal accounts: choosing a charging structure – A summary of responses following public consultation'. July 2008. Available at http://www.Nestpensions.org.uk/schemeweb/NestWeb/includes/public/docs/choosing-charging-structure-response,PDF.pdf.

4.4. Accumulation phase: Growing entitlements within funds

4.4.1. Contributions

Auto-enrolment pension schemes can involve contributions from three parties: employees, employers, and (less commonly) the state. The use of matching contributions by employers and the state as an incentive not to opt-out from an auto-enrolment scheme is discussed above in section 4.2.2. The minimum and default contribution rates associated with auto-enrolment influence the impact of the introduction of an auto-enrolment scheme on participation in supplementary pensions and on pension adequacy.

4.4.1.1.Default and minimum contribution rates

At present, auto-enrolment schemes specify default contribution rates in all countries in which such schemes are permitted.[288] The existence of a default contribution rate eliminates the need, but preserves the option, for participants to choose a contribution rate; this simplification of the participation process helps to reduce the incentive to opt-out.[289]

Often, default and minimum contribution rates are typically set at low levels initially in order to avoid individuals opting out or employers choosing not to offer auto-enrolment because of high contribution rates. Default contribution rates are then escalated subsequently; these increases mean that auto-enrolment has a greater effect on the level of pension savings while inertia mitigates the impact of these escalations on the opt-out rate. The UK and New Zealand implemented this design.[290] However, one study involving a field experiment in the USA suggested that when contribution rates below the default rate are permitted, increasing the default contribution rate from 6% to 7%, 8%, 9% or 10% was not associated with a statistically significant increase in the proportion of people opting out (i.e. not contributing at all).[291] Countries could use tax and social security reforms to mitigate the effect of initial contribution rates.

The appropriate level for total default or minimum contribution rate (i.e. the sum of default or minimum contribution rates for employers, employees and the state) in auto-enrolment pension schemes depends on the gap between the retirement income provided by other parts of the country's pension system and desired levels of retirement income.[292] In countries where public pension provision is poorer, the additional amount of retirement saving needed to achieve a given replacement rate is greater and therefore the appropriate contribution rates for auto-enrolment pensions are higher. At present, total default contribution rates are low in many countries that have introduced auto-enrolment; they stand below 5% in Canada, Lithuania, Poland, and Turkey.[293] In countries where public pensions will achieve a low replacement rate – including Lithuania and Poland – this level of contributions is unlikely to sufficiently increase pension adequacy.[294]

Default contribution rates have particular significance because the behavioural phenomena of inertia and anchoring (where an initial value is used as a reference point in subsequent decision-making[295]) mean that individuals are likely to contribute at these default rates, even if they would contribute more in its absence. There exists empirical evidence to this effect.[296] A study focusing on the implementation of auto-enrolment in a 401(k) scheme in a large US healthcare firm found

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[288] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[289] Ibid.

[290] Ibid.

[291] Beshears, J., Benartzi, S., Mason, R.T., and Milkman, K.L (2017), 'How Do Consumers Respond When Default Options Push the Envelope?'.

[292] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[293] Ibid.

[294] Ibid.

[295] Madrian, B. and Shea, D. (2001), 'The power of suggestion: inertia in 401(k) participation and savings behavior', Quarterly Journal of Economics, Vol. 116, No. 4, 1149–87.

[296] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

that nearly 65% of the cohort who were subject to auto-enrolment contributed at the default contribution rate, which was 3%.[297] Moreover, there was a *shift* in contribution rates following auto-enrolment's introduction away from higher contribution rates and towards the default 3%.[298]

Given the power of inertia, some auto-enrolment schemes have used automatic escalation of contributions in a bid to improve adequacy. Behavioural economists Richard Thaler and Shlomo Benartzi devised a pension plan design called Save More Tomorrow that involves automatic escalation of contributions. According to this design, participants agree in advance to increases in their contribution rates that will coincide with increases in their pay.[299] The rationale for making contribution rate increases coincide with pay increases is to ensure that contribution rate increases do not cause participants to lose take-home pay, which would trigger loss aversion.[300] A number of US pension plan administrators have implemented the Save More Tomorrow design. Safelite Group was the first employer in the US to implement both automatic enrolment and Save More Tomorrow in its pension plans, in 2003.[301] 93% of those covered adhered in the plan initially, and only 6% subsequently opted out as contributions increased.[302]

In the absence of automatic escalation of contributions or increases in the default or minimum contribution rate, advice can help to encourage participants to make higher contributions.

4.4.1.2.Contribution holidays

Auto-enrolment schemes in Canada, Lithuania, New Zealand, and Turkey allow beneficiaries to take contribution holidays in which the participant reduces his or her contribution rate to zero. Whether or not to allow contribution holidays involves a trade-off. Contribution holidays may help to reduce the incentive to opt-out by reassuring pension savers that there is the flexibility to stop contributing in response to changes in their financial or life circumstances.[303] However, contribution holidays can threaten adequacy if they lead to a reduction in total contributions over the accumulation phase.[304] In New Zealand, KiwiSaver members who have been making contributions to a KiwiSaver account for more than 12 months can apply for a contribution holiday for between three months and five years. Five years is the default duration for a contribution holiday.[305] Participants can take an unlimited number of contributions holidays and can apply for them back-to-back. Employees with a serious illness or experiencing financial hardship can take a contribution holiday before contributing for 12 months[306]. In June 2018, 5% of KiwiSaver participants were taking a contribution holiday.[307] The number of individuals on contributions holidays has increased from around 3.6% of active and provisional members in 2011 to approximately 4.5% in 2020[308]. It should be noted that the largest relative increase in contribution holidays was in those with a holiday duration of up to 12 months,[309] which could be as a result of COVID-19. The auto-enrolment scheme in Turkey takes a more permissive approach to contribution holidays as it allows

[297] Madrian, B. and Shea, D. (2001), 'The power of suggestion: inertia in 401(k) participation and savings behavior', Quarterly Journal of Economics, Vol. 116, No. 4, 1149–87.

[298] Ibid.

[299] Thaler, R.H. and Benartzi, S. (2004), 'Save More Tomorrow™: Using Behavioral Economics to Increase Employee Saving', *Journal of Political Economy*, Vol.112, No. S1, Papers in Honor of Sherwin Rosen: A Supplement to Volume 112 (February 2004), pp. S164-S187; Thaler, T.H. and Sunstein, C.R. (2008), *Nudge: Improving Decisions about Health, Wealth, and Happiness*.

[300] Thaler, T.H. and Sunstein, C.R. (2008), *Nudge: Improving Decisions about Health, Wealth, and Happiness*.

[301] Ibid.

[302] Ibid.

[303] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[304] Ibid.

[305] Ibid.

[306] Inland Revenue (New Zealand) (2020) 'Taking a savings break'. Available at: https://www.ird.govt.nz/kiwisaver/kiwisaver-individuals/making-changes-to-my-kiwsaver/taking-a-savings--break.

[307] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[308] Inland Revenue (New Zealand) (2021) 'KiwiSaver statistics'. Available at: https://www.ird.govt.nz/about-us/tax-statistics/kiwisaver.

[309] Ibid.

members to take a contribution holiday of any duration at any point after the opt-out window (which lasts for 60 days after auto-enrolment).[310]

4.4.1.3.Contribution administration

Auto-enrolment schemes typically take contributions through automatic payroll deductions. To date, Chile – where the target population was the self-employed – is the only country whose auto-enrolment scheme did not follow such a model.[311] Part of the rationale for automatic payroll deduction of contributions is to reduce the effect of loss aversion, since taking contributions in this way is in a sense 'silent'.

Some, but not all, auto-enrolment schemes have a centralised administrative body (or a system of connected bodies) that processes contributions. This is the case in New Zealand's KiwiSaver scheme and in Lithuania's auto-enrolment scheme, and is being developed for the Republic of Ireland's planned auto-enrolment scheme.[312] The existence of such a body reduces administrative burdens and costs for employers.[313] It also helps to find solutions to the issue of small, deferred pots (see section 4.4.5 for further details).

A centralised administrative body for processing contributions could be a new body, as will be the case in the Republic of Ireland's planned auto-enrolment scheme. However, establishing such a body can involve significant costs and take a significant amount of time.[314] For instance, Australia's SuperStream platform (which processes contributions and data in Australia's superannuation system) and its clearing house and gateway platform had a development period of around four years, and the development cost was over AU$1.5 billion (approximately €1 billion[315]) between 2012 and 2018.[316] The cost was largely paid for by levies on fund providers.[317] Alternatively, an existing body can take on the role of administering the auto-enrolment scheme. For example, in New Zealand, the existing Inland Revenue Department administers the KiwiSaver scheme.[318] Assigning the task of administrating the system to an existing body may save time and costs relative to setting up an entirely new body. It could also help with monitoring of tax and regulatory compliance (if done by an existing agency with competencies in these areas).[319] However, this design requires adequate institutional capacity on the part of the existing body;[320] the budget of the existing body may have to be expanded in order to facilitate this additional role.

Contributions can also be administered in a decentralised way, with a greater role assigned to employers in the administration of the system (with employers, for instance, arranging the deduction and payment of employee contributions to the provider). Such a design reduces the administrative costs and burden imposed on government by auto-enrolment. However, it places greater obligations on employers. Smaller employers are likely to be less able, on average, to manage such obligations. In the UK, the number of compliance notices issued by the regulator to remind employers of their obligations in the auto-enrolment scheme rose as smaller employers entered the scope of the scheme.[321]

The costs associated with the administrative processes involved with auto-enrolment are likely to be smaller to the extent that they are integrated with existing administrative processes. For instance, in New Zealand's KiwiSaver scheme the deduction of contributions by employers was built

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[310] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[311] Ibid.

[312] Pensions Policy Institute (2021), 'How have other countries dealt with small, deferred member pension pots?'. Available at https://www.pensionspolicyinstitute.org.uk/media/3694/20210112-ppi-small-pots-international-report-final.pdf.

[313] Ibid.

[314] Ibid.

[315] Converted using the mean EUR:AUD exchange rate for 2012 – 2018 using dataset ERT_BIL_EUR_A from Eurostat.

[316] Ibid.

[317] Ibid.

[318] Ibid.

[319] Ibid.

[320] Ibid.

[321] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

into the existing payroll deduction system,[322] which reduced the additional administrative burden on employers and their compliance costs.[323]

4.4.2. Investment strategy

The investment strategy options for pension funds are generally limited to a number of different strategies with varying degrees of risk and expected return. For example, savers in New Zealand can choose between defensive; conservative; balanced; growth or aggressive funds[324]. Each fund can hold a mix of assets and are grouped by their exposure to growth assets (shares, commercial property, and derivatives). Participants can hold multiple funds but can only invest with one provider.[325] Those saving with the low-cost provider Nest established by the UK government can choose between active, passive, Sharia or ESG-focused strategies.[326] PRPP plans in Canada may offer at most six options of investment strategy to participants.[327]

As described in section 4.3.4, most default funds in auto-enrolment systems employ life-cycle investment strategies. OECD research on the effects of the use of life-cycle investment strategies found that such outperform fixed-portfolio strategies with the same age-weighed equity exposure in various (but not all) scenarios.[328] The positive impact of life-cycle investment strategies is magnified when the contribution period is shorter, when the initial equity exposure is higher, and when individuals experience periods in which they are not employed.[329] The latter point is particularly significant in relation to pension provision for women and those with unconventional employment situations. A significant proportion of women take a career break, especially after having children;[330] partly for this reason, economic inactivity rates tend to be higher amongst women than men (though in many countries this gap is narrowing)[331]. However, a caveat to note is the fact that life-cycle funds do less well when negative shocks to equity markets occur long before the target date of the fund (typically chosen to coincide with the saver's envisaged retirement date), since the chances of recouping any losses incurred because of such a shock are reduced by the automatic reduction in the fund's exposure to equities over time.[332]

4.4.3. Costs and charges

High costs and charges are potentially an important source of detriment to pension savers for a number of reasons.

Firstly, costs and charges are a drag on investment returns. Seemingly small changes in costs and charges can have a significant impact on retirement savings. One illustration, for example, shows that a 1% higher annual management charge could reduce retirement savings accumulated over

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[322] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[323] Inland Revenue Department (New Zealand) (2015), 'KiwiSaver evaluation: Final summary report'. Available at https://www.ird.govt.nz/about-us/publications/research-evaluation/kiwisaver.

[324] Funds on differentiated on their exposure to growth assets, defensive funds hold 0%-9.9% in growth assets; conservative funds hold 10%-34.9% in growth assets; Balanced funds hold 35% to 62.9% in growth assets; Growth funds hold 63%-89.9% in growth assets and Aggressive funds hold 90%-100% in growth assets

[325] See New Zealand country fiche.

[326] See UK country fiche.

[327] Office of the Superintendent of Financial Institutions (Government of Canada) (2018), 'Pooled Registered Pension Plans - Guide for Ontario Members'. Available at https://www.osfi-bsif.gc.ca/Eng/pp-rr/ppa-rra/prpp-rpac/Pages/prpp-rpac_on.aspx.

[328] Antolin, P. and Payet, S. (2011), 'Assessing the Labour, Financial and Demographic Risks to Retirement Income from Defined-Contribution Pensions', *OECD Journal: Financial Market Trends*, Volume 2010 – Issue 2. Available at https://www.oecd.org/daf/fin/financial-markets/47522586.pdf.

[329] Ibid.

[330] See, for instance, Fairchild, C. (2020), 'Nearly half of mothers work, take a break, and work again. Why is there still such a stigma?', *Working Together (LinkedIn)*. Available at https://www.linkedin.com/pulse/nearly-half-mothers-work-take-break-again-why-still-stigma-fairchild.

[331] See, for instance, Francis-Devine, B., Foley, N., and Ward, M. (2020), 'Women and the Economy', *House of Commons Library Briefing Paper* Number CBP06838. 2nd March 2020. Available at https://commonslibrary.parliament.uk/research-briefings/sn06838/.

[332] Antolin, P. and Payet, S. (2011), 'Assessing the Labour, Financial and Demographic Risks to Retirement Income from Defined-Contribution Pensions', *OECD Journal: Financial Market Trends*, Volume 2010 – Issue 2. Available at https://www.oecd.org/daf/fin/financial-markets/47522586.pdf.

40 years by one quarter.[333] Secondly, several studies find no evidence of positive risk-adjusted abnormal fund performance after costs and charges are accounted for.[334] Higher cost schemes and funds cannot be relied upon to deliver higher investment returns.

Despite the importance of costs and charges to retirement outcomes, there exist a number of behavioural explanations as to why individuals may have difficulty in taking information on costs and charges into account. People can make mistakes, and their propensity to do so can be affected by the way that information is provided/presented. One would expect this to be particularly true in the context of pensions since the products are complex and unfamiliar to most people. Broadly, individuals may have problems to *access*, *assess* and *act* on costs and charges information.[335]

Firstly, individuals may find it difficult to access information on costs and charges because pension schemes have an incentive to make this information less transparent.[336] Similarly, investment fund marketing may not be informative about key characteristics such as investment fund costs and charges.[337]

Secondly, individuals may face difficulties assessing information on costs and charges. It is often the case that costs and charges information is presented in percentage form but research has shown that individuals are much better at assessing information when presented in euros and cents.[338] In addition, studies have found that the presentation of costs and charges information with simple language and graphics may help people to assess this information more easily.[339] Often costs and charges information is also split up rather than presented as a single figure, making it difficult to calculate investment returns net of costs and charges. For example, an investment fund may separately report its annual management charge and contribution charges.[340]

Thirdly, individuals may find it difficult to act on costs and charges information. One reason for this is that the inertia relied upon to raise participation levels in pensions may hinder investment fund choices. More generally, it is well-documented in the literature that financial literacy levels are low.[341]

In the context of the introduction of an auto-enrolment scheme, these issues are particularly important because thousands of employers may have to choose pension schemes on behalf of their employees and millions of new pension savers will have to make investment fund decisions, which may result in material detriment for future retirement savings if the wrong choices are made.

A variety of practices have been proposed or observed to alleviate potential behavioural issues of accessing, assessing and acting on costs and charges information, or indeed to sidestep them altogether. At one end of the spectrum are measures to improve the transparency of the reporting of costs and charges and, at the other end, are outright bans on certain types of charges (flat fees could be banned, for instance) and caps on the annual management charge. Charge caps

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[333] House of Commons Work and Pensions Committee (UK) (2013), 'Improving governance and best practice in workplace pensions'. Sixth Report of the Work and Pensions Committee. Available at https://publications.parliament.uk/pa/cm201213/cmselect/cmworpen/768/76802.htm.

[334] On balance, US studies of mutual (and pension) funds suggest little or no superior performance but somewhat stronger evidence of underperformance (e.g. Lakonishok et al., 1992, Grinblatt et al., 1995, Daniel et al., 1997, Carhart, 1997, Chevalier and Ellison, 1999, Wermers, 2000, Baks et al., 2001, Pastor and Stambaugh, 2002). Studies using UK data on mutual and pension funds give similar results (e.g. Blake and Timmermann, 1998, Blake et al., 1999, Thomas and Tonks, 2001)

[335] See, e.g., Financial Conduct Authority (UK) and Competition & Markets Authority (UK) (2018), 'Helping people get a better deal: Learning lessons about consumer facing remedies'. October 2018. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/744521/UKCN_consumer_remedies_project_-_lessons_learned_report.pdf.

[336] Carlin, B. I. (2009), 'Strategic price complexity in retail financial markets', *Journal of Financial Economics*, 91(3), 278-287.

[337] Cronqvist, H. (2005), 'Advertising and Portfolio Choice' (No. 44). Centre for Research on Pensions and Welfare Policies.

[338] Chater, N., Huck, S., & Inderst, R. (2010), 'Consumer decision-making in retail investment services: A behavioural economics perspective'. Report to the European Commission/SANCO ; Hastings, J. S., & Tejeda-Ashton, L. (2008), 'Financial literacy, information, and demand elasticity: Survey and experimental evidence from Mexico' (No. w14538). National Bureau of Economic Research.

[339] Hayes, L., Lee, W. and Thakrar, A. (2018), 'Now you see it: drawing attention to charges in the asset management industry', *FCA Occasional Paper 32*, Financial Conduct Authority (UK). Available at https://www.fca.org.uk/publication/occasional-papers/occasional-paper-32.pdf.

[340] See, e.g., https://www.Nestpensions.org.uk/schemeweb/Nest/aboutNest/Nest-charges.html.

[341] Lusardi, A. (2019), 'Financial literacy and the need for financial education: evidence and implications', *Swiss Journal of Economics and Statistics*, Vol. 155, No.1.

expressed as a percentage of assets under management can be observed in the auto-enrolment schemes of Canada (in the case of VRSPs), Lithuania, Poland, Turkey, the UK (where transaction costs are exempted) and the US (in the case of state-based auto-IRAs in Oregon and Illinois).[342] In the case of Turkey, the only charge that is permitted is a fund management fee, though this can be increased in the case of strong fund performance.[343] Other strategies are also used to avoid excessive fees and charges; such strategies can either be complements to charge caps, or can operate in their absence. The KiwiSaver scheme does not have a charge cap, but providers are required to charge 'reasonable' fees, and the level of fees is one of the criteria on which default providers are selected.[344] In the case of 401(k) plans in the US, providers can be liable if they charge fees that are not 'reasonable'. There is an onus on responsible decision-making by those who choose and monitor providers, so that competitive pressure bears down on fees.[345] In the Swedish premium pension system, each fund is required to offer a rebate, meaning that a given fund's fees are typically lower on the premium pension platform than in the regular fund market. The rebate is made possible by the fact that funds' administrative costs are generally lower in the premium pension system than in the regular market because of the centralised performance of a number of administrative processes.[346]

4.4.4. Governance arrangements

Governance arrangements are the arrangements through which a scheme is run. There are three primary governance models in defined contribution pension schemes, including auto-enrolment schemes: institutional, trust and contractual models.[347] The issues of market access described in section 4.3.1 are related to this discussion.

In schemes with institutional-type governance, the pension fund exists as an independent legal entity and as such has its own internal governing board.[348] Schemes run by pension foundations and associations in countries including the Netherlands and Italy and by Pensionskassen in Austria and Germany feature institutional-type governance.[349] In most countries, pension funds in schemes with institutional-type governance have one governing board; in others, including Germany, the fund has separate management and supervisory boards.[350] Governing board members are often selected by employers and employees or associations thereof.[351]

Trust-based schemes are generally run and managed by an employer through a board of trustees.[352] In trust-based schemes, trustees have a 'fiduciary duty' to savers in the scheme scheme, meaning they are under a strict, legal obligation to act solely in the best interest of their savers.[353] The role of the fiduciaries (trustees) in trust-based schemes includes protecting savers from high charges, hidden costs and poor investment decisions and taking responsibility for ensuring that savers have access to good quality information and advice.

Contract-based schemes are managed by a third party, such as an insurance provider, and operate on the basis of a contract between the saver and the provider.[354] In relation to IORPs (Institutions

[342] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[343] Ibid.

[344] Ibid.

[345] Ibid.

[346] Turner, J., 'Individual Pension Accounts: The Innovative Swedish Reform'. Available at https://core.ac.uk/download/pdf/159566821.pdf.

[347] Stewart, F. and J. Yermo (2008), 'Pension Fund Governance: Challenges and Potential Solutions', *OECD Working Papers on Insurance and Private Pensions*, No. 18. Available at https://www.oecd.org/pensions/private-pensions/41013956.pdf.

[348] Ibid.

[349] Ibid.

[350] Ibid.

[351] Ibid.

[352] Aegon, 'Defined contribution (DC) contract'. Available at https://www.aegon.co.uk/workplace/employers/targetplan/dc-contract.html.

[353] Ibid.

[354] Ibid.

for Occupational Retirement Provision), the IORP II Directive requires compliance with the prudent person rule,[355] which is understood as giving rise to a fiduciary duty.

Trust-based schemes have been argued to have an advantage in terms of the ongoing monitoring, an independent focus on driving down costs (the employer pays some or all of charges for members in more than three quarters of trust-based DC schemes in the UK), and tailored communications.[356] Master trusts operate a scheme used, or intended to be used, by multiple unrelated employers;[357] in countries where they exist, they can be expected to play a larger role in pension provision after the introduction of auto-enrolment. These allow employers to access trust-based governance and expertise at a low cost. However, master trusts may not provide tailored governance in the way that smaller trusts can. In addition, trust-based schemes are not common in continental European legal systems[358] and there may be difficulties in achieving trust in an unfamiliar mode of governance amongst savers.

4.4.5. Arrangements in relation to changing employers

Auto-enrolment schemes must also account for what happens when people change jobs, moving from one employer to another, which is an increasingly frequent occurrence in Europe. A worry is that if workers start a new pot each time they move between employers, auto-enrolment is likely to see a proliferation in small pension pots. The Pensions Policy Institute (2020) in the UK estimates that the number of deferred pots in the UK DC master trust market will more than triple between 2020 and 2035, from 8 million to around 27 million.[359] Auto-enrolment is an important driver for this growth.[360] People are likely to be less able to manage and keep track of a large number of pots, and small pots are more prone to erosion by costs and fees.[361] It is also likely to be more costly and more difficult for employers and pension providers to administer a large number of small pots than a smaller number of larger pots.[362] This issue has attracted attention in the UK, where the House of Commons Work & Pensions Committee established a working group that has produced a report on the issue and potential solutions. An overview of these solutions is provided in this sub-section.

The UK has announced a ban on flat charges on pots whose value is less than £100, in order to attenuate the erosion of small pots by charges.[363] However, it has been argued by some in the pension industry that policies focusing on charging structures are unlikely to be an optimal solution in the long term, and that policymakers should seek to reduce the proliferation of small pots.[364] Allowing small pots to proliferate while restricting charges on them risks burdening providers with costs.

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[355] Directive (EU) 2016/2341 of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs). Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016L2341.

[356] National Association of Pension Funds (NAPF), 'Regulatory differences between occupational and workplace personal pensions: A response by the National Association of Pension Funds'. Available at https://www.plsa.co.uk/portals/0/Documents/0173_Regulatory_differences_between_occupational_and_workplace_personal_pensions_A_NAPF_response_to_a_DWP_consultation.pdf.

[357] See, e.g., The Pensions Regulator (2021), 'Check if your scheme is a master trust'. Available at https://www.thepensionsregulator.gov.uk/en/master-trust-pension-schemes/check-if-your-scheme-is-a-master-trust-.

[358] See, e.g., Stewart, F. and J. Yermo (2008), 'Pension Fund Governance: Challenges and Potential Solutions', *OECD Working Papers on Insurance and Private Pensions*, No. 18. Available at https://www.oecd.org/pensions/private-pensions/41013956.pdf.

[359] Pensions Policy Institute (2020), 'Policy options for tackling the growing number of deferred members with small pots'. Available at https://www.pensionspolicyinstitute.org.uk/media/3545/20200723-deferred-members-final-report-for-the-website.pdf.

[360] Ibid.

[361] Small Pots Working Group Report (UK) (2020), December 2020. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945319/small-pots-working-group-report.pdf.

[362] Ibid.

[363] Austin, A. and Mercer, B. (2021), 'Govt to ban flat fees for small pots', *FT Adviser*. Published 13th January 2021. Available at https://www.ftadviser.com/pensions/2021/01/13/dwp-to-ban-flat-fees-for-small-pots/.

[364] See, e.g., Austin, A.and Mercer, B. (2021), 'Govt to ban flat fees for small pots', *FT Adviser*. Published 13th January 2021. Available at https://www.ftadviser.com/pensions/2021/01/13/dwp-to-ban-flat-fees-for-small-pots/; see also, e.g., Pensions Policy Institute (2020), 'Policy options for tackling the growing number of deferred members with small pots'. Available at https://www.pensionspolicyinstitute.org.uk/media/3545/20200723-deferred-members-final-report-for-the-website.pdf.

A number of policies aimed at reducing the number of small pots have been suggested. These can be grouped into member-led solutions and provider-led solutions.[365] The former look to action on the part of savers to address the issue of small pots, while the latter involve the automatic and automated consolidation of pots.[366] All the potential policy solutions involve trade-offs. The remainder of this subsection (non-exhaustively) discusses policy solutions that have been implemented in practice and the trade-offs they involve.

In the case of member-led solutions, there is a tension between the emphasis they place on engagement and action by savers on the one hand and auto-enrolment's reliance on inertia on the part of savers on the other hand (though this is not to say that such solutions would not help to address the issue).[367] Pension tracking systems seek to present savers with information about their pensions in a clear and accessible manner in one place. Pension tracking systems have been suggested as a way of encouraging pension savers – including those who have been auto-enrolled - to engage with and learn about their pensions. It has been suggested that pension tracking systems could bring about a small amount of consolidation of small pots, as savers would be reminded through the dashboard of small pots they have accrued and would be able to take action to consolidate them. However, further measures – such as the scheme-led policies described below – would likely be required.[368] Pension tracking systems complement these further measures; research by the Pensions Policy Institute observed this in Australia, Denmark, Israel and Sweden.[369] In the Swedish case, for instance, the minPension (myPension) service displays to users all of their pension pots from the public, occupational and personal pension pillars.[370, 371] The service also allows users to forecast their entitlements in retirement and to see how changing different assumptions (about retirement age, investment returns, etc.) affects the forecast. minPension is funded and run jointly by the government and participating pension providers and is free to use.[372] The Australian Taxation Office (ATO) provides a free online service that allows users to view and consolidate pots in the country's superannuation system.[373] In July 2021, EIOPA issued a consultation paper on technical advice for the development of pension tracking systems and listed the consolidation of pension pots as one potential functionality a pension tracking system.[374]

One scheme-led policy, which was considered in proposals for the Republic of Ireland's planned auto-enrolment scheme[375] and which is being introduced in the US[376], is a 'pot follows member' design. In such a design, workers automatically carry forward small pots to a new provider when they change employers. This design will reduce the proliferation of small pots but involves trade-offs. It places an administrative burden on pension plan administrators,[377] and is easier to implement to the extent that high-quality data is available for matching purposes. The administrative costs associated with 'pot follows member' can be reduced through the implementation of a centralised data platform along with unique saver identifiers and common standards for reporting to this platform.[378] Also, it may lead to people's pots being moved from a

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[365] Small Pots Working Group Report (UK) (2020), December 2020. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945319/small-pots-working-group-report.pdf.

[366] Ibid.

[367] Ibid.

[368] Ibid.

[369] Pensions Policy Institute (2021), 'How have other countries dealt with small, deferred member pension pots?'. Available at https://www.pensionspolicyinstitute.org.uk/media/3694/20210112-ppi-small-pots-international-report-final.pdf.

[370] Ibid.

[371] minPension (2011), 'minpension.se – Information in English'. Available at https://minpension.files.wordpress.com/2011/03/minpension-se-engelska1.pdf.

[372] minPension, 'Om minPension'. Available at https://www.minpension.se/om-minpension.

[373] See https://www.ato.gov.au/Individuals/Super/Growing-your-super/Keeping-track-of-your-super/.

[374] EIOPA (2021), 'Technical Advice on the Development of Pension Tracking Systems', *Consultation paper*. 9th July 2021. Available at https://www.eiopa.europa.eu/content/consultation-technical-advice-pension-tracking-services_en.

[375] Reeve, N. (2018), 'Ireland revises contribution plans as it sets out auto-enrolment regime design', *European Pensions*. Published 31st October 2019. Available at https://www.europeanpensions.net/ep/Ireland-revises-contribution-plans-as-it-sets-out-auto-enrolment-regime-design.php.

[376] Pensions Policy Institute (2021), 'How have other countries dealt with small, deferred member pension pots?'. Available at https://www.pensionspolicyinstitute.org.uk/media/3694/20210112-ppi-small-pots-international-report-final.pdf.

[377] Ibid.

[378] Ibid.

low-cost or high-performing fund to a higher cost or worse performing one.[379] This risk can be mitigated by charge caps and strong supervision (or procurement) of providers.[380]

New Zealand, along with Chile and Mexico, operates a lifetime provider-automatic design.[381] In New Zealand, when an employee first joins work and is auto-enrolled, that employee either chooses a provider or joins a default provider. The employee pays his or her contributions to Inland Revenue and these contributions are passed on to that same provider, regardless of changes in employer.[382] In this way, employees cannot generate small, deferred pots by virtue of changing employer. However, small, deferred pots can still be generated in the New Zealand scheme by those who are employees for only a short period of time. For instance, someone who is self-employed (and therefore not auto-enrolled in KiwiSaver) for most of their career but spends a short period of time as an employee would generate a small pot.[383] Many KiwiSaver funds involve a flat fee as well as a percentage fee;[384] such flat fees can erode small pots. If a lifetime provider model were implemented in a country, such as the UK, where the employer is responsible for collecting contributions and distributing them to providers (as opposed to New Zealand, where the Inland Revenue Department performs this role), a lifetime provider model would require employers to remit contributions to several providers rather than one, increasing the complexity of administering contributions for them.[385]

4.4.6. Solidarity clauses

Solidarity clauses provide for mechanisms within the pension scheme that aim to support disadvantaged groups of savers within the scheme. A solidarity clause could, for instance, provide for transfers from high-earning saversto low-earning ones.

In general, auto-enrolment pension schemes do not include solidarity clauses. This is because their inclusion may encourage those in high-income groups to opt out from the auto-enrolment scheme. As well as undermining participation in the auto-enrolment pension scheme in itself, this also reduces the extent to which solidarity clauses are able to effectively support low-income groups.

However, solidarity clauses and redistributive elements are included in other statutory funded, occupational and personal schemes and they can help to enhance the positive impact of auto-enrolment on pension adequacy amongst those on low incomes and serve a wider redistributive purpose.

Given the benefits of solidarity clauses, there is interest in exploring the feasibility of their use within auto-enrolment pension schemes in principle. Section 7.4 presents suggestions for potential designs for solidarity clauses within an auto-enrolment scheme. The High-Level Group of Experts on Pensions addressed the importance of solidarity and highlighted that Member States should indeed consider implementing automatic enrolment schemes that are broad and inclusive, seeking to ensure equal access for men and women.[386]

Solidarity clauses at the decumulation phase that aim at addressing issues arising from heterogeneity in longevity between different groups in society are discussed in section 4.5.2.

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[379] Small Pots Working Group Report (UK) (2020), December 2020. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945319/small-pots-working-group-report.pdf.

[380] Ibid.

[381] Pensions Policy Institute (2021), 'How have other countries dealt with small, deferred member pension pots?'. Available at https://www.pensionspolicyinstitute.org.uk/media/3694/20210112-ppi-small-pots-international-report-final.pdf.

[382] Ibid.

[383] Ibid.

[384] Ibid.

[385] Small Pots Working Group Report (UK) (2020), December 2020. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945319/small-pots-working-group-report.pdf.

[386] High-Level Group of Experts on Pensions (2019), 'Final report of the high-level group of experts on pensions', available at: https://www.pensionseurope.eu/system/files/HLG%20report_FINAL.pdf.

4.5. Decumulation phase

4.5.1. Post-retirement choices

4.5.1.1.The transition from the accumulation phase to the decumulation phase

In the accumulation phase, auto-enrolment schemes make use of consumers' inertia to encourage saving, while default funds, default contribution rates and caps on charges aim to protect consumers in the face of complex decisions. There risks being an inconsistency in what is demanded from consumers between this accumulation phase and a decumulation phase in which consumers are required to make complex choices.[387] For the reasons described above, consumers are likely to have difficulty in making these choices. Hence, it may be seen as desirable for policymakers to attempt to avoid a discrepancy of this kind. The remainder of section 4.5.1 discusses how policymakers can do so.

4.5.1.2.Choice at the decumulation phase

Having accumulated pension savings, upon retirement one must choose how to convert these savings into retirement income.

'Present bias' is the tendency to prefer a smaller reward now over a larger reward later. Present bias can encourage people to take their pension savings as a lump sum and to spend their savings in a way that risks them outliving their savings. This latter risk is known as longevity risk.[388] Purchasing an annuity in order to get a guaranteed annual income for the rest of one's life can protect the consumer[389] against longevity risk.[390]

Decisions about the decumulation phase are characterised by a number of the features (identified in section 4.3.1) that exacerbate the problems associated with difficult choices:[391, 392]

- there is a large degree of uncertainty – in particular, at retirement, there is typically a large deal of uncertainty about exactly how many more years someone will live;
- the subject matter is complex and many people making these decisions do not have a sophisticated understanding of it;
- there are trade-offs between the different alternatives; and,
- the costs of making a 'wrong' choice are potentially very large – for instance, spending one's retirement savings too quickly could lead to poverty if one's lifetime is longer than expected (note that this risk is not unidirectional: there is a risk associated with dying earlier than expected too).

A recent survey of over-55s in the UK indicated that a significant proportion of people aged over 55 lacked understanding about their decumulation options and suggested that many did not spend a lot of time considering these options.[393] Indeed, a recent study examining a telephone survey of

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[387] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[388] See, e.g., Pensions and Lifetime Savings Association (2020), 'DC Decumulation: Evolving the Pension Freedoms – Final Recommendations'. Available at https://www.plsa.co.uk/Portals/0/Documents/Policy-Documents/2020/DC-Decumulation-Final-Recommendations-Oct-2020.pdf.

[389] Annuitisation creates a risk for the seller of the annuity. There is evidence of adverse selection in annuity markets arising from asymmetric information about likely longevity – see, for instance, Finkelstein, A. and Poterba, J., 'Adverse Selection in Insurance Markets: Policyholder Evidence from the U.K. Annuity Market', available at https://economics.mit.edu/files/7895. Adverse selection in annuity markets may make annuities more expensive.

[390] OECD (2012), 'The OECD Roadmap for the Good Design of Defined Contribution Pension Plans'. Available at https://www.oecd.org/finance/private-pensions/50582753.pdf.

[391] Loewenstein, G. (1999), 'Is More Choice Always Better?'.

[392] Iyengar, S.S. and Lepper, M.R. (2000), 'When Choice is Demotivating: Can One Desire Too Much of a Good Thing?', *Journal of Personality and Social Psychology*, 2000, Vol. 79, No. 6, 995-1006.

[393] Legal & General (2018), 'Over-55s spend more time buying a car than deciding how to use their pension'. Published 21st September 2018. Available at https://www.legalandgeneralgroup.com/media-centre/press-releases/over-55s-spend-more-time-buying-a-car-than-deciding-how-to-use-their-pension/.

1,000 retiring white-collar workers in Sweden found that a significant proportion were unable to recall what choice they had made for the decumulation phase.[394] Of those who took a life annuity, the default option, 40% reported this correctly, nearly 27% stated that they did not know what their decumulation decision was, and nearly a third incorrectly thought they had opted for a fixed-term pay-out.[395] Of those who had chosen a fixed-term pay-out, approximately 77% correctly reported their decision, although more than 10% incorrectly believed that they had chosen a life annuity.[396]

At present, most countries with an auto-enrolment scheme do not specify how savers may take benefits in the decumulation phase.[397] In 2015, the UK significantly relaxed restrictions on decumulation decisions in what was called 'pension freedom day'.[398] However, Lithuania, Poland and Turkey either recommend or specify particular actions at the decumulation phase.[399] In Turkey, a financial incentive paid by the government[400] and worth 5% of accumulated assets is used to encourage annuitisation.[401] In Poland's auto-enrolment scheme, savers are exempted from capital gains tax on the returns on their pension savings through the scheme only if at least 75% of accumulated assets are taken in at least 120 monthly instalments.[402] In Lithuania's auto-enrolment scheme, different decumulation options are specified based on the value of accumulated assets (see Lithuania country fiche in section 12.9 of Annex 3 for further details):[403]

- if the accumulated assets have a value of less than €3,000, the benefits are paid out as a lump sum;
- for accumulated assets with a value of between €3,000 and €10,000, benefits are to be taken as programmed (monthly or quarterly) withdrawals;
- accumulated assets with a value of between €10,000 and €60,000 are to be taken as a life annuity (the participant can choose between three products offered by Sodra); and,
- participants who have accumulated over €60,000 of assets can take benefits as a combination of a lump sum and an annuity.

One potential solution to the problems associated with making choices about the decumulation phase is to provide that savers should purchase a post-retirement product by default.[404] The OECD Roadmap for the Good Design of Defined Contribution Pension Plans (2012) suggested that some degree of annuitisation should be the default option in the decumulation phase, and specifically suggested a combination of programmed withdrawals with a deferred life annuity as an appropriate default.[405] The provision of such a default product could be supported by a choice of alternatives

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[394] Hagen, J. (2021), 'Partial recall: differences between actual and self-reported annuitization decisions in Sweden', *Journal of Pension Economics & Finance*, *FirstView,* pp.1-30.

[395] Ibid.

[396] Ibid.

[397] Ibid.

[398] See, for instance, Hargreaves Lansdown (2015), 'One month to pension freedom day: will you be ready?'. Published 6th March 2015. Available at https://www.hl.co.uk/news/articles/archive/one-month-to-pension-freedom-day-will-you-be-ready.

[399] In Sweden's system of quasi-mandatory occupational pensions, most plans specify annuitisation as a default. See, for instance, Anderson, K.M., (2015), 'Occupational Pensions in Sweden'. Friedrich Ebert Foundation, December 2015. Available at https://library.fes.de/pdf-files/id/12113.pdf.

[400] Peksevim, S. and V. Akgiray (2019), 'Reforming the Pension System in Turkey: Comparison of Mandatory and Auto-Enrolment Pension Systems in Selected OECD Countries'. Available at www.oecd.org/pensions/Reforming-the-Pension-System-in-Turkey-2019.pdf.

[401] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[402] MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[403] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[404] Ibid.

[405] OECD (2012), 'The OECD Roadmap for the Good Design of Defined Contribution Pension Plans'. Available at https://www.oecd.org/finance/private-pensions/50582753.pdf.

that are subject to minimum standards and by a communication and education campaign aimed at improving savers' ability to make decisions in the decumulation phase.[406]

Research has shown the existence of 'nudge spillovers' at the decumulation phase. A 2018 study examined the effect of changes to the form sent to local government workers covered by the KAP-KL scheme, an occupational pension scheme in Sweden, shortly before their retirement age.[407] The form provides the workers with information about the decumulation phase and their options and allows them to opt out of the default option, which is a lifetime annuity paid from the age of 65.[408] In 2008, the form was changed to make the option of a fixed 5-year pay-out more salient, and information about the monthly benefit under this option was added.[409] Not only did this change result in a higher proportion of workers choosing the five-year pay-out option (a direct effect), it saw a reduction in the workers' supply of labour between the standard retirement age and the age of effectively-mandatory requirement[410] (an indirect effect).[411] The authors suggest that this may have been because the change revealed to people, or highlighted to people, that they could afford to retire when they had not previously been (fully) aware of this.[412]

4.5.1.3. Advice

Given the complexities involved in decisions about the decumulation phase and the low level of financial literacy of many consumers,[413] pension savers may have difficulty in accessing and assessing information about their options post-retirement.

Financial advice can help consumers to make better decisions. For this reason, a policy intervention that is likely to improve outcomes at the decumulation phase is the provision of good-quality free advice or signposting services, like through the free-at-the-point-of-use government service Pension Wise in the UK. In the UK, the Financial Conduct Authority and the Department for Work & Pensions each recently consulted on measures that would require providers to integrate a greater 'nudge' towards taking free pension advice from the Pension Wise service in relation to decumulation decisions.[414] Under these measures, providers would be required to explain to savers aged at least 50 who request to access or transfer their pension savings the nature and purpose of guidance from Pension Wise and to book an appointment with Pension Wise on their behalf, with savers not wishing to have such an appointment needing to opt out.[415] Trials have shown that these 'nudges' are successful in encouraging savers to book and attend Pension Wise appointments.[416]

Alternatively, individuals could be encouraged or mandated to purchase advice. There is, however, a risk of conflicts of interest associated with commissions or inducements from product providers,[417] which is relevant in the context of retirees considering their decumulation options, as well as markets for financial advice in general. One approach to addressing this risk is to mandate

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[406] The PLSA in the UK recommends for the decumulation stage *inter alia* a set of minimum product standards and member engagement and communications in its 2020 report 'DC Decumulation: Evolving the Pension Freedoms – Final Recommendations'. Available at https://www.plsa.co.uk/Portals/0/Documents/Policy-Documents/2020/DC-Decumulation-Final-Recommendations-Oct-2020.pdf.

[407] Hagen, J, Hallberg, D., and Sjögren Lindquist, G. (2018), 'A nudge to quit? The effect of a change in pension information on annuitization, labor supply and retirement choices among older workers', *GLO Discussion Paper No. 209*, Global Labor Organization.

[408] Ibid.

[409] Ibid.; previously, the form reported the monthly benefit only for the default option.

[410] In Sweden, workers older than 67 are not covered by protection in labour law, so 67 acts as an effective age of mandatory requirement (ibid.).

[411] Ibid.

[412] Ibid.

[413] See, for instance, OECD (2005), 'Improving Financial Literacy: Analysis of Issues and Policies'. Available at https://www.oecd.org/finance/financial-education/improvingfinancialliteracyanalysisofissuesandpolicies.htm.

[414] Financial Conduct Authority (UK) (2021), 'The stronger nudge to pensions guidance', *Consultation Paper CP21/11*, May 2021. Available at https://www.fca.org.uk/publication/consultation/cp21-11.pdf; Department for Work & Pensions (UK) (2021), 'Stronger Nudge to pensions guidance', *Open consultation*. Last updated 12th July 2021. Available at https://www.gov.uk/government/consultations/stronger-nudge-to-pensions-guidance/stronger-nudge-to-pensions-guidance.

[415] Department for Work & Pensions (UK) (2021), 'Stronger Nudge to pensions guidance', *Open consultation*. Last updated 12th July 2021. Available at https://www.gov.uk/government/consultations/stronger-nudge-to-pensions-guidance/stronger-nudge-to-pensions-guidance.

[416] Ibid.

[417] Inderst, R. and Ottaviani, M. (2012), 'Financial Advice', *Journal of Economic Literature*, Vol. 50, No.2. June 2012. pp.494-512.

disclosures by financial advisers about conflicts of interest.[418] This is likely to be especially helpful when consumers are naïve about advisers' incentives and conflicts of interest.[419] Caps or bans on commissions are an option when mandatory disclosures prove insufficient. Robo-advice platforms that provide automated recommendations are emerging as a way of increasing the accessibility of advice and guidance on pensions.[420] However, such platforms must be the subject of appropriate supervision and regulation given the challenges – both new challenges (for instance, around transparency as platforms begin to integrate the use of artificial intelligence to arrive to recommendations) and ones common with 'traditional' modes of advice provision (such as issues around conflicts of interest) – that they present.[421] In considering mandating that retirees seek financial advice and other complementary policies (including in relation to robo-advice platforms), outlined above, policymakers should be aware of the wider context of regulating financial advice at the national and EU levels.

In some cases, there is a trade-off associated with policy measures aimed to improving the quality of advice available to pension savers, whereby they increase the cost or reduce the availability of advice.[422] To minimise such a trade-off, regulators can streamline the processes involved in the regulation of advice and clarify the scope and nature of regulatory requirements so as to reduce uncertainty.[423]

4.5.2. Heterogeneity in longevity

There exist significant differences in life expectancy between different groups in society. Research assessing life expectancy differences in Western Europe found that the more educated had, on average, an appreciably greater life expectancy than the less educated.[424] Similarly, those with higher incomes live, on average, longer than those on lower incomes.[425] An individual with a lower life expectancy will receive a smaller total benefit from an annuity over the course of their retirement than an individual with a greater life expectancy if the two individuals have made the same contributions and achieved the same investment returns.[426] In this sense there is a risk of an implicit 'tax' on low earners and the less educated and a corresponding implicit 'subsidy' for higher earners and the more educated.[427] This 'tax' and 'subsidy' exacerbate the existing difference in access to supplementary pensions between middle-to-high income groups and low-income groups.[428] A number of policy interventions in response to this have been suggested. For instance, it has been proposed that annuity calculations should aim to take into account differences in life expectancy between different groups in society by, for example, differentiating annuity rates by lifetime income levels.[429] An OECD report suggested that annuity pricing could take into account variables such as smoking status that are correlated with socioeconomic status in order to address this implicit 'tax' and 'subsidy'.[430] In addition, making use of programmed withdrawals rather than

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[418] Ibid.

[419] Ibid.

[420] OECD (2017), 'Robo-Advice for Pensions'. Available at https://www.oecd.org/pensions/Robo-Advice-for-Pensions-2017.pdf.

[421] Ibid.

[422] OECD (2016), 'OECD Pensions Outlook 2016'. Available at https://www.oecd-ilibrary.org/finance-and-investment/oecd-pensions-outlook-2016/policy-measures-to-improve-the-quality-of-financial-advice-for-retirement_pens_outlook-2016-6-en.

[423] Ibid.

[424] Majer, I.M., Nusselder, W.J., Mackenbach, J.P., and Kunst, A.E. (2014), 'Socioeconomic inequalities in life and health expectancies around official retirement age in 10 Western-European countries', *Journal of Epidemiology and Community Health*, vol. 65, 972–979.

[425] See, for instance, Chetty, R., Stepner, M. and Abraham, S., et al. (2016), 'The Association Between Income and Life Expectancy in the United States, 2001-2014', *JAMA*. 2016; 315(16): 1750-1766.

[426] Ayuso, M., Bravo, J.M., and Holzmann, R. (2016), 'On the heterogeneity in longevity among socioeconomic groups: Scope, trends, and implications for earnings-related pension schemes', *IZA Discussion Paper No. 10060.*

[427] Ibid.

[428] See, for instance, Antolin, P., Payet, S. and Yermo, J. (2012), 'Coverage of Private Pension Systems: Evidence and Policy Options', *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 20. Available at https://www.oecd-ilibrary.org/finance-and-investment/coverage-of-private-pension-systems_5k94d6gh2w6c-en.

[429] Ayuso, M., Bravo, J.M., and Holzmann, R. (2017), 'Addressing Longevity Heterogeneity in Pension Scheme Design and Reform', *Journal of Finance and Economics*, Vol. 6, No. 1 (2017), 1-21.

[430] OECD (2018), 'OECD Pensions Outlook 2018'.

purchasing an annuity with all of the accumulated capital can benefit lower earners – especially low-earning women.[431]

There is also heterogeneity in longevity between men and women, and this also raises issues of fairness in the pension system. On average, women live longer than men. Women must therefore work longer if they are to spend the same proportion of their lifetime in retirement as their male counterparts, i.e. to spend the same proportion of their lifetime drawing down on pension assets rather than accumulating them.[432] Meanwhile, women both have shorter pension contribution histories on average, because of career breaks,[433] and in several schemes and countries have lower retirement ages. In addition, a greater proportion of old age is likely to be spent with disability for women than for men, meaning that equivalent lengths of time in retirement for men and women imply fewer years of healthy retirement for women.[434] The heterogeneity in average longevity between men and women means that the extent of indexation of pension benefits to variables associated with the cost of living (such as inflation or wage growth or a composite of the two) has particular implications for women's standards of living in retirement.[435] Since women live longer in retirement on average, they will see a greater reduction in the real value of their pension benefits if they are not indexed to the cost of living.[436] A range of practices are observed in relation to indexation of benefits from funded pensions, with some countries mandating indexation (as is done in Finland and Germany), others where indexation is present based on the discretion of the provider (as is done in Canada, Spain and Sweden), and others still where benefits are not indexed (such as Denmark, Italy and the UK).[437] Finally, the heterogeneity in life expectancy between men and women means that the use of unisex mortality tables, as is mandated in Europe, favours women as the use of unisex mortality tables means that women will receive the same regular payment as men with the same level of asset accumulation but for longer on average.[438]

4.5.3. Early access

Auto-enrolment schemes, and other private and/or funded pension schemes, in different countries differ in the extent to which they allow savers to withdraw money prior to retirement.

Policymakers may opt to give savers flexibility in the timing of when they can withdraw their funds by allowing early withdrawals, especially for contingencies such as ill health or financial hardship (perhaps brought about by unemployment).[439] Allowing early withdrawals may reduce the incentive to opt out.[440] In addition, policymakers might consider that the savers' pension assets are their own assets, and so they should be able to make decisions about what to do with them. However, taking too permissive an approach to early withdrawals could threaten adequacy.

It is common, therefore, for auto-enrolment schemes to allow early withdrawals in the event of contingencies such as serious illness or financial hardship. This is the case in the auto-enrolment schemes in Canada (both for PRPPs and VRSPs), Italy, New Zealand, Poland and the US.[441] Other countries also allow early withdrawal in other particular circumstances, such as the purchase a (first) home (Italy, New Zealand, Poland, and the US) or in the case of emigration (New Zealand).[442] In Poland, early withdrawals to purchase a house must be repaid, while in the US savers can take loans from their plan, but these loans must be repaid.[443] Requiring repayment for

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[431] Ibid.

[432] Ibid.

[433] Ibid.

[434] Ibid.

[435] OECD (2021), 'Towards Improved Retirement Savings Outcomes for Women'. Available at https://www.oecd-ilibrary.org/finance-and-investment/towards-improved-retirement-savings-outcomes-for-women_f7b48808-en.

[436] Ibid.

[437] Ibid.

[438] Ibid.

[439] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[440] Ibid.

[441] Ibid.

[442] Ibid.

[443] Ibid.

early withdrawals helps to ensure that these early withdrawals do not threaten adequacy subsequently.

An alternative approach to this issue is to use a 'sidecar' design, in which savers build separate 'jars' for emergency savings and pension savings. Such a design is being trialled by Nest, the large state-established provider in the UK's auto-enrolment scheme. In the Nest trial, savers who sign up to saving in 'jars' set a contribution rate and a target level of emergency savings (editable defaults are in place).[444] The contributions that they set feed into an emergency savings account until the target level of emergency savings is reached; after this, they feed into the saver's pension account in addition to their auto-enrolment contributions.[445] The emergency savings can be accessed at any time. The trial is ongoing, but emerging findings are generally positive; the trial and its findings are discussed further in section 5.6.6 below.

[444] Nest Insight (2020), 'Supporting emergency saving : Briefing paper 2 – early learnings from the employer experience'. Available at https://www.Nestinsight.org.uk/wp-content/uploads/2020/12/Supporting-emergency-saving-early-learnings-from-the-employer-experience.pdf.

[445] Ibid.

5. COUNTRY CASE STUDIES

Four country case studies are presented in this chapter in which each country has had either a more positive or a less positive experience of introducing auto-enrolment pension schemes. The case studies analyse certain features/characteristics of each scheme that have contributed to its being more or less successful. Key lessons that have emerged from each experience are also drawn to inform the identification of best practices. Two short case studies summarising the experiences of Lithuania and Turkey are also presented.

5.1. Italy

Italy has had a less positive experience of introducing an auto-enrolment pension scheme. It has seen a limited impact from the introduction of auto-enrolment. In the first year of auto-enrolment's operation, just 67,000 employees were auto-enrolled.[446] Auto-enrolment has had only a small impact on the coverage of private pension plans in Italy: in the seven years after auto-enrolment's introduction, coverage of private pension plans in Italy rose by just 7.5 percentage points.[447] Italy's auto-enrolment scheme is unusual since it involves the flow of contributions to the *Trattamento di Fine Rapporto*, a severance pay provision, of those who did not opt out being transferred to a pension fund. Key reasons for the less positive experience of introducing an auto-enrolment scheme in Italy include employees and employers' incentives for *TFR* not to be redirected, a conservative default option that offered little scope for returns exceeding the rate at which the *TFR is revalued*, the scheme's introduction at short notice, and the occurrence of the Global Financial Crisis shortly after the scheme's introduction.

Italy introduced an auto-enrolment scheme in January 2007, making it the first EU Member State to do so. Through the scheme, which applied to all private sector employees at the time of its introduction and applies to all new private sector employees subsequently, the flow of contributions to the *Trattamento di Fine Rapporto (TFR)* is by default paid into an occupational pension plan; the employee has six months to opt out.[448] The *TFR* is a severance pay provision that has been mandatory for private sector companies since 1982.[449] Contributions are equal to 6.91% of an employee's salary. For all employers prior to the auto-enrolment scheme's introduction and since then for employers with fewer than 50 employees, if the employee decides not to direct the contributions to pension saving, they are kept within the company as book reserves. Since the introduction of the auto-enrolment scheme, for employers with 50 or more employees, if the employee decides not to direct the contributions to pension saving, they are contributed to a fund of the National Social Security Institute (INPS).[450] At the end of the employee's employment they are paid to the employee. The *TFR* is revalued annually at the employer's expense at a rate of 1.5% plus three-quarters of the inflation rate.[451]

5.1.1. Description of the pension system prior to the introduction of auto-enrolment

The Italian pension system comprises a compulsory, pay-as-you-go public pension and voluntary funded occupational and personal pensions divided into closed occupational funds, open

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[446] Pensions Policy Institute (2017), 'The impact of automatic enrolment in Italy, New Zealand and the USA'. *PPI Briefing Note* Number 99 (PhD Series No 2). Available at https://www.pensionspolicyinstitute.org.uk/media/1367/201706-bn99-phd-the-impact-of-automatic-enrolment-in-italy-new-zealand-and-the-usa.pdf.

[447] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[448] Decreto legislativo 5 dicembre 2005, n. 252, Disciplina delle forme pensionistiche complementari (Legislative Decree No 252 of 5 December 2005, Regulation of supplementary pension schemes), available at: https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2005-12-05;252!vig=.

[449] Article 2120, Codice Civile (Civil Code), available at: https://www.gazzettaufficiale.it/atto/serie_generale/caricaArticolo?art.progressivo=0&art.idArticolo=2120&art.versione=5&art.codiceRedazionale=042U0262&art.dataPubblicazioneGazzetta=1942-04-04&art.idGruppo=267&art.idSottoArticolo1=10&art.idSottoArticolo=1&art.flagTipoArticolo=2; Rinaldi, A., 'What is the TFR?', available at https://www.oecd.org/finance/private-pensions/37696176.pdf.

[450] Rinaldi, A., 'What is the TFR?', available at https://www.oecd.org/finance/private-pensions/37696176.pdf.

[451] Ibid.

supplementary funds and individual pension plans; this was the case prior to the introduction of auto-enrolment.[452]

At the start of the 1990s, the Italian pension system was characterised by generous public pensions and very low coverage of occupational and personal pensions.[453] Only around 3% of workers participated in occupational or personal pensions, and those who did were mostly high earners.[454] A series of reforms starting in 1992 have since reduced the generosity of the public pension and aimed to increase occupational and personal pension saving.[455]

While some occupational and personal pension funds did exist prior to 1992, from 1992 a comprehensive framework was introduced in stages. Under this framework:[456]

- defined benefit schemes could not be established, and existing ones could not take on new members;
- membership of occupational and personal pension funds was voluntary for individual employees;
- when an employee opted to join and contribute, employers (in most cases) made contributions at a rate determined by collective bargaining agreements, and the flow of contributions to the *TFR* for the employee – all in the case of workers employed after the introduction of the legislation, and part of them for workers employed prior to the introduction of the legislation - are directed to the fund;
- 'contractual' pension funds were (and are) established by collective bargaining agreements at the industry (or regional)[457] level; and,
- 'open' pension funds were (and are) collective investment vehicles that are open to all workers and whose explicit purpose is growing assets for retirement. In practice, they were (and are) mainly used by the self-employed and employees who work in sectors with no contractual pension fund.

Immediately prior to the *TFR* reform, coverage of occupational and personal pensions in Italy remained low. In 2003, shortly prior to the passage of the legislation that implemented the *TFR* reform, approximately 12% of the workforce were members of occupational or personal pension schemes.[458]

5.1.2. Timeline of the introduction of auto-enrolment

In 2004, the Italian Parliament passed a law that reformed Italy's public pension and that also gave the government powers to reform the private pension system.[459] Under this law, in late 2005, the

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[452] Centre for Applied Research in Finance (CAREFIN), Università Bocconi (2010), 'Pension Funds in Italy', available at http://www.iopsweb.org/resources/48238257.pdf.

[453] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[454] Ibid.

[455] Centre for Applied Research in Finance (CAREFIN), Università Bocconi (2010), 'Pension Funds in Italy', p. 18, available at http://www.iopsweb.org/resources/48238257.pdf.

[456] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[457] Paklina, N. (2014), 'Role of Pension Supervisory Authorities in Automatic Enrolment', *IOPS Working Papers on Effective Pensions Supervision*, No.22. December 2014. Available at http://www.iopsweb.org/WP_22_Role-Pension-Supervisory-Authorities-Automatic-Enrolment%20.pdf.

[458] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[459] OECD (2008), 'Pension Country Profile: Italy', *OECD Private Pensions Outlook 2008*. Available at https://www.oecd.org/finance/private-pensions/42566263.pdf; see also Law No. 243 of 23 August 2004, Provisions on pensions and delegation to the Government in the field of public pensions, for the support of complementary pensions and stable employment and for the reorganisation of the compulsory social security and assistance bodies, available at: https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:%20legge:2004-08-23;243.

government of the time issued a legislative decree (Legislative Decree 252/2005, passed 25th November 2005) that provided for the *TFR* auto-enrolment scheme.[460]

This legislative decree came into force, and auto-enrolment began, in January 2007.[461] Auto-enrolment applied to all those who were private sector employees at that time; it was, therefore, not 'staged' or completed in different phases that changed the size of employers covered. Subsequently, it applied to all new private sector employees.[462] In all cases, an opt-out window of six months was provided, and contributions did not start until after the opt-out window.[463]

The implementation of auto-enrolment had initially been planned for January 2008. The Italian Parliament decided in late 2006 to implement it a year earlier than had been planned,[464] after a new government came into power following elections in May 2006.[465]

A National Pension Communication Campaign (NPCC), organised by the Presidency of the Council of Ministers and the Ministry of Labour, took place between January and June of 2007.[466] This campaign had a state-funded budget of €17 million.[467] It made use of a dedicated website, a call centre, public events, TV and radio broadcasts, the press and wider media, and paper documentation.[468] Its purpose was three-fold; it aimed to publicise the *TFR* reform, to raise pension awareness, and to encourage workers to make a choice about how their *TFR* contributions would be used.[469]

5.1.3. Description of the characteristics of the auto-enrolment scheme

The auto-enrolment scheme was introduced in January 2007 and applied to all private sector employees at the time of its introduction and all new private sector employees subsequently. Through the scheme, the flow of contributions to the *TFR* is paid into a pension fund unless the employee opts out. Since the scheme operates on the flow of contributions, *TFR* entitlements that have already been accrued are unaffected by the scheme. First-time private sector employees (to whom the scheme applied after January 2007) would have no *TFR* entitlements if their flow of *TFR* contributions were directed to pension saving. If the employee does opt out, the employee's accrual of rights under the *TFR* operates in the same way as it did before the introduction of auto-enrolment. However, the treatment of the contributions if an employee opts out depends on the employer's size. If the employer has fewer than 50 employees and the employee opts out, the *TFR* contributions are retained in the firm as book reserves, as was done prior to the *TFR* reform. If the employer has 50 or more employees and the employee opts out, the contributions are directed to a fund of the INPS.[470]

Employees for whom the flow of contributions to the *TFR* is directed to a pension fund may make supplementary contributions on a voluntary basis. For most employees, collective bargaining agreements provide for employer contributions, typically of around 1-1.5%, that are conditional on

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[460] Ibid.; see also Decreto legislativo 5 dicembre 2005, n. 252, Disciplina delle forme pensionistiche complementari (Legislative Decree No 252 of 5 December 2005, Regulation of supplementary pension schemes), available at: https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2005-12-05;252!vig=.

[461] Ibid.

[462] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm. See also Article 8 of the Legislative Decree 252/2005.

[463] Ibid.

[464] Paklina, N. (2014), 'Role of Pension Supervisory Authorities in Automatic Enrolment', *IOPS Working Papers on Effective Pensions Supervision*, No.22. December 2014. Available at http://www.iopsweb.org/WP_22_Role-Pension-Supervisory-Authorities-Automatic-Enrolment%20.pdf.

[465] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[466] Atkinson, A., Harrison, D., Messy, F.-A., and Yermo, J. (2012), 'Lessons from National Pensions Communication Campaigns', *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 18. Available at https://www.oecd.org/finance/private-pensions/50255339.pdf.

[467] Ibid.

[468] Ibid.

[469] Ibid.

[470] This provision was not part of the initial plan for the *TFR* reform and was instead added to the reform in late 2006.

the employee making contributions.[471] Importantly, employers do not have to make matching contributions if the *TFR* is directed to a pension fund as a result of the employee being automatically enrolled without explicitly agreeing.[472]

Employees have a six-month window in which to opt out after being enrolled and contributions begin after this window has ended (and only if the employee did not opt out).[473] Employers are required to provide employees with a form by which they could select either to adhere to the default or to opt out.[474] If employees give no indication of their choice, they are automatically enrolled.[475] After the six-month opt-out window, it is not possible to opt out.[476]

The contributions of those who are enrolled through the mechanism are typically paid into a fund identified in collective labour agreements.[477] The INPS set up a fund for those not covered by such agreements.[478]

The default investment strategy is a conservative one. There is a requirement to avoid nominal losses and to give, on a best-effort basis, a guaranteed rate of return equal to the rate at which the *TFR* is revalued, i.e. 1.5% plus three-quarters of the inflation rate.[479] The revaluation rate of the *TFR* implies an increase in its value in real terms if the annual rate of inflation is less than 6%.

An 'ETT' (exempt-taxed-taxed) tax regime applies to this scheme. Contributions to pension funds through the *TFR* auto-enrolment scheme do not count towards the limit on tax-deductible employee pension contributions.[480] Investment returns are taxed at 12.5% in relation to returns from government bonds, and 20% for returns from other assets. Since 2017, the returns from new investments by pension funds into the shares of Italian or other European companies are exempt from taxation if they are held for at least five years (which incentivises investment in European equities).[481] Benefits, net of what was taxed in the accumulation phase and whether in annuity or lump-sum form, are taxed at a rate of 15%, with a reduction in this rate by 0.3 percentage points for each year of participation beyond 15 years up to a maximum reduction of six percentage points.[482] This treatment is more favourable than for other taxed income.

At the decumulation phase, savers have up to three options:[483]

- Savers can use all of the accumulated capital to buy an annuity;
- Savers can take up to half of the accumulated capital as a lump sum and buy an annuity with the remaining capital; and,

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[471] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[472] Ibid.

[473] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[474] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[475] Article 8 of the Legislative Decree 252/2005.

[476] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[477] Article 8 and Article 3 of the Legislative Decree 252/2005.

[478] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[479] Centre for Applied Research in Finance (CAREFIN), Università Bocconi (2010), 'Pension Funds in Italy', available at http://www.iopsweb.org/resources/48238257.pdf.

[480] Article 8 of the Legislative Decree 252/2005.

[481] OECD (2020), 'Financial incentives for funded private pension plans in OECD countries', OECD project on Financial Incentives and Retirement Savings, 4th December 2020. Available at https://www.oecd.org/daf/fin/private-pensions/financial-incentives-retirement-savings.htm.

[482] Article 11 of the Legislative Decree 252/2005.

[483] Article 11 of the Legislative Decree 252/2005; Centre for Applied Research in Finance (CAREFIN), Università Bocconi (2010), 'Pension Funds in Italy', available at http://www.iopsweb.org/resources/48238257.pdf.

- If, and only if, using 70% of the accumulated capital to purchase an annuity would secure an annuity whose value is less than half of the value of the public pension, all of the accrued capital may be taken as a lump sum.

Early withdrawals are permitted in the event of contingencies (e.g., in the event of unemployment) or to purchase a first home.[484]

COVIP – the Commissione di Vigilanza sui Fondi Pensione - is the supervisory body responsible for this scheme.

The treatment of the *TFR* has changed further since the *TFR* reform. Since 2015, employees (with some exceptions) have been able to take out some of their *TFR* while still in employment, even if their contributions have previously been directed to a pension fund.[485] In addition, a law passed in August 2017 permits employees to split their *TFR* contributions, retaining some in the company as a severance pay provision while directing some of them into a pension fund.[486]

Box 3 Retirement savings from an occupational auto-enrolment pension scheme in Italy – Illustrative examples

It is assumed that an individual becomes automatically enrolled into an occupational pension scheme at the age of 18. The following age and income assumptions are made for each gender:

Input/assumption	Male	Female
Retirement age[1]	67	67
Life expectancy at age 65[2]	85	88
Gross annual average earnings at age of enrolment[3]	€26,522	€24,915
Annual earnings growth[4]	1.0%	1.0%

Note: [1] Based on OECD data "Current retirement ages for a person who entered the labour force at age 22". This may be different to "Future retirement ages for a person who entered the labour force at age 22". [2] Based on OECD data "Life expectancy at age 65". [3] Based on 2018 Eurostat data from the "Structure of earnings survey: Annual earnings" for individuals aged less than 30 years and employed full-time. [4] Based on OECD data "Average annual wages" and calculated using wages in current prices. Average annual nominal growth computed over 2010 to 2019 and assumed to be the same for males and females.

It is assumed that a male remains in full-time employment from the age of enrolment to the retirement age. On the other hand, it is assumed that a female takes a total of six years out of work from the age of 30 for childcare[487] and returns to the workforce at the same level of earnings as when she left (adjusted for nominal earnings growth).

Contributions to the occupational pension scheme in each year of employment are assumed to be as follows:

- Employee contributions are voluntary and assumed to be zero
- Employers contribute 6.91% of the employee's gross earnings

During the accumulation phase, it is assumed that the annual rate of return on investment is 3.0% (1.5% + 0.75 multiplied by inflation (2%)[488]) and management costs of the fund are

[484] Article 11 of the Legislative Decree 252/2005. See also OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[485] Jamieson, C. (2020), 'TFR – the Trattamento di Fine Rapporto or Employee Leaving Indemnity', *taxing.it*. December 2020. Available at https://taxing.it/tfr-the-trattamento-di-fine-rapporto-or-employee-leaving-indemnity/.

[486] Eurofound European Monitoring Centre on Change (2021), 'Italy: Severance pay/redundancy compensation'. Available at https://www.eurofound.europa.eu/observatories/emcc/erm/legislation/italy-severance-payredundancy-compensation.

[487] This is consistent with modelling scenarios made by Dekkers, et.al (2020). In reality, females may return to work sooner or on a part-time basis as well as have multiple career breaks; however, for simplicity, a one-off six-year break with no earnings is modelled.

[488] The default investment strategy in this scheme is a conservative one that guarantees, on a best-effort basis, a return of 1.5% plus ¾ of the inflation rate. Centre for Applied Research in Finance (CAREFIN), Università Bocconi (2010), 'Pension Funds in Italy', available at http://www.iopsweb.org/resources/48238257.pdf.

assumed to be 0.5%. The net rate of return of 2.5% is assumed to be constant throughout the saving period.

The following tax incentives are modelled. For comparability across countries, it is assumed that the pension pot accumulated at the time of retirement does not earn any additional income during the pay-out period (e.g., the individual does not purchase a life annuity scheme).

Aspect of retirement savings	**Tax treatment**
Contributions	Employer and employee contributions are exempt from personal income tax up to €5,164.57 (this ceiling applies to the sum of employer and employee contributions). Above this threshold, the excess is taxed at the individual's marginal tax rate (including employee and employer social security contributions). Employee contributions are subject to standard social security contributions, while employer contributions are subject to social security contributions of 10% for income below €101,427 (as of 2018), while social security contributions are levied at the standard rate of approximately 24% for income above €101,427. TFR flows do not count towards the tax-deductibility ceiling and are exempt from taxation and social security contributions.
Returns on investments	Subject to the standard tax rate of total investment return of 20%.
Funds accumulated	No tax applies on funds accumulated.
Pension income	Pension benefits are taxed at a fixed rate of 15%, which reduces by 0.5% for every year of participation after 15 years with a maximum reduction of 6%. It is assumed that no tax-free lump sum is taken.

Source: OECD (2020), 'Financial incentives for funded private pension plans in OECD countries'.

Given the above inputs and assumptions, the table below provides pension income estimates in Italy broken down by gender and earnings.

Table 2 Retirement savings from an occupational auto-enrolment pension scheme in Italy – Illustrative examples

Gender	Male			Female		
Annual earnings at enrolment (€)	26,522 (average)	33% below average	33% above average	24,915 (average)	33% below average	33% above average
Pension pot (before tax) (€)	212,488	142,369	282,607	160,963	107,845	214,082
Tax-free lump sum (€)	0	0	0	0	0	0
Pension income (after tax and lump sum) (€)	193,384	129,569	257,199	145,499	97,484	193,515
Total pension income after tax (€)	193,384	129,569	257,199	145,499	97,484	193,515
Annual average payments over lifetime[1] (€)	10,744	7,198	14,289	6,929	4,642	9,215
Replacement rate[2]	26%	26%	26%	19%	19%	19%

Note: Marginal income tax rates are sourced from OECD data. [1] Annual average payments are calculated by dividing total pension income by the difference in retirement age and life expectancy age. [2] Replacement rates are calculated as [Annual average payments over lifetime divided by earnings immediately before retirement] ×100.

5.1.4. Evidence on the impact of the introduction of auto-enrolment

The positive impact the introduction of the *TFR* auto-enrolment scheme had on participation in supplementary pension schemes was significant, but smaller than what has been observed in other countries that have introduced auto-enrolment schemes at the national level, such as the UK. Between the end of 2006 and the end of 2007 (which marked one year of the *TFR* auto-enrolment scheme's operation), participation in occupational pension schemes rose by 1.4 million people, to around 20% of all workers.[489] Amongst private sector employees, the target population of the auto-enrolment scheme, coverage increased by around 10 percentage points to 27%.[490] Coverage of occupational and personal pensions remained, therefore, much lower than in many other European countries. Importantly, few people were auto-enrolled without having explicitly opted to direct the flow of contributions to their *TFR* to a pension fund.[491] Most of those whose *TFR* contributions were directed to a pension fund explicitly chose for this to happen. Only around 5% (67,000) of private sector employees who began participating in an occupational pension scheme in 2007 did so by default without having expressed a preference, though this proportion was significantly higher in 2008 and 2009.[492] The number of those who became members of a pension fund through the *TFR* auto-enrolment scheme without having made an explicit choice between 2019 and the scheme's introduction in 2007 was approximately 307,800 (roughly 2-3% of private sector employees in Italy).[493] Coverage of occupational and personal pensions now stands at 31.4% of the workforce.[494]

The impact of auto-enrolment differed by sector[495] such that existing differences in occupational pension coverage between sectors persisted and, in some cases, grew.[496] These differences reflect differences between sectors in the distribution of firm size, in trade union membership, and in the pattern of employment (the *TFR* has particular value in sectors in which employment is less stable).[497]

Pre-existing differences between different societal groups in occupational pension coverage continued after the *TFR* auto-enrolment scheme's introduction. After the *TFR* reform, participation continued to be higher in northern and central regions of Italy, which tend to be more affluent on average, than in southern ones.[498] In the years after the introduction of the *TFR* auto-enrolment scheme, participation in occupational and personal pension schemes ranged from 17% in some regions to 46% in others.[499] Similarly, large differences in participation rates between men and women, between older and younger workers and between workers in different sectors continued after auto-enrolment's introduction.[500]

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[489] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[490] Ibid.

[491] Ibid.

[492] Ibid.

[493] Commissione di Vigilanza sui Fondi Pensione (COVIP), 'Relazione per l'anno 2019'. Available at https://www.covip.it/sites/default/files/relazioneannuale/1592977485covipra2019.pdf.

[494] COVIP, 'Supplementary pension funds in Italy at end-2019: Main data', available at https://www.covip.it/sites/default/files/relazioneannuale/annual_report_2019_-_main_data.pdf.

[495] For instance, *Fonchim*, the industry-wide pension fund for the chemical industry, reached a participation rate of over 80% by the end of 2007; this is much higher than the level of participation achieved at the system-wide level. See Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[496] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[497] Ibid.

[498] Ibid.

[499] Pensions Policy Institute (2017), 'The impact of automatic enrolment in Italy, New Zealand and the USA'. *PPI Briefing Note Number 99*, available at https://www.pensionspolicyinstitute.org.uk/media/1367/201706-bn99-phd-the-impact-of-automatic-enrolment-in-italy-new-zealand-and-the-usa.pdf.

[500] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

5.1.5. Description of factors that influenced the performance of auto-enrolment

5.1.5.1. The role of the *TFR*

There are incentives for employees to opt out from the *TFR* auto-enrolment scheme because opting out means contributions going towards severance pay provision through the *TFR*, which employees value.[501] The nature of the default investment strategy in the scheme compounds this issue, for the reasons described in the box 'Assessment of default investment vehicles'.

Meanwhile, the *TFR* is valued by employers as a source of financing.[502] For an employer with fewer than 50 employees, if an employee opts out their *TFR* contributions remain in the company (see above). This may create an incentive for some small employers not to convey information to employees about the *TFR* auto-enrolment scheme or to encourage them to opt out.[503, 504] Measures to improve access to bank financing for these companies had been envisaged in order to compensate for the reduction in companies' ability to use the *TFR* as a source of financing, but they were not implemented.[505]

5.1.5.2. The conservative nature of the default option

As described in section 5.1.3, the default investment strategy in the *TFR* auto-enrolment scheme is a conservative one that guarantees, on a best-effort basis, a rate of return equal to the rate at which the *TFR* is revalued, i.e., 1.5% plus three-quarters of the inflation rate.[506]

This guaranteed rate of return implies a return that is positive in real terms if the rate of inflation is less than 6%. However, the conservative nature of the strategy, low interest rate environment and cost pressures have meant that saving through the *TFR* auto-enrolment scheme was unlikely to give returns significantly greater than the rate at which the *TFR* is revalued (i.e., the amount by which the saver's *TFR* contributions would increase by if the saver opted out).[507] This reduces the incentive to save through the *TFR* auto-enrolment scheme. In the ten years from end-2009 to end-2019, the compounded average annual rates of return net of costs and taxes for the guaranteed sub-funds in contractual pension funds was 1.9%.[508] The average *TFR* revaluation net of taxes was higher in that period, at 2%.[509]

In addition, a conservative default investment strategy is likely to be less appropriate for younger savers,[510] who are better able to absorb investment losses and who have more time in which to accumulate returns.

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[501] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[502] Ibid.

[503] Ibid.

[504] Ibid., and Paklina, N. (2014), 'Role of Pension Supervisory Authorities in Automatic Enrolment', *IOPS Working Papers on Effective Pensions Supervision*, No.22. December 2014. Available at http://www.iopsweb.org/WP_22_Role-Pension-Supervisory-Authorities-Automatic-Enrolment%20.pdf.

[505] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[506] Centre for Applied Research in Finance (CAREFIN), Università Bocconi (2010), 'Pension Funds in Italy', p. 18, available at http://www.iopsweb.org/resources/48238257.pdf.

[507] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[508] COVIP, 'Supplementary pension funds in Italy at end-2019: Main data', available at https://www.covip.it/sites/default/files/relazioneannuale/annual_report_2019_-_main_data.pdf.

[509] Ibid.

[510] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

5.1.5.3.Interactions with other pension schemes

The generous nature of the public pension historically in Italy and the high social security contributions in Italy incentivise savers to opt out from the *TFR* auto-enrolment scheme.

Italy's public pension was historically generous.[511] Reforms have made it less so, but awareness of such reforms is low.[512] As a result of these facts, many savers in Italy expect to receive a generous public pension; this expectation reduces the incentive to save in an occupational pension scheme.

In Italy, employee and employer social security contributions are, in total, 33% of gross salary; of this, the employee pays one-third (11% of gross salary) and the employer pays two-thirds (22% of gross salary).[513] These high social security contributions reduce the affordability of contributions to occupational or personal pensions.[514]

5.1.5.4.Implementation and communication

As described above, the *TFR* auto-enrolment scheme was introduced at short notice, a year earlier than had been planned. This has been said to have resulted in a rushed implementation, giving COVIP and pension funds little time to prepare.[515] It also meant that the NPCC associated with the reform could not be used to explain the reform and raise awareness of the need for private pension saving in advance of auto-enrolment's introduction; rather, the NPCC ran concurrently with the scheme's introduction. An OECD Working Paper on 'Lessons from National Pensions Communication Campaigns' reports that research was not conducted prior to the launch of the NPCC.[516] The campaign's organisers stated that the campaign would have been more effective if it had started several months before auto-enrolment was introduced.[517] They also suggest that the campaign would have benefited from a clearer definition of its goals and of how it was to be evaluated.[518] The rushed implementation of auto-enrolment may have contributed to shortcomings in these areas.

A separate consideration with regard to the NPCC was its emphasis on '*l'importanza di scegliere ora*' or 'the importance of choosing now'.[519] Such messaging tended to reduce the importance of the behavioural phenomenon of inertia which auto-enrolment attempts to utilise.[520] Reportedly, the tendency to opt out increased over the course of the NPCC.[521] Such messaging combined with the requirement for employers to provide employees with a form by which they could express an active choice may both have contributed to the small proportion of workers whose *TFR* contributions are being directed to a pension plan without the employee's explicit choice achieved through auto-enrolment.[522]

Low levels of pension awareness have also been identified as a factor that contributed to moderating the impact of the introduction of auto-enrolment in Italy. Historically, public pensions

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[511] Ibid.

[512] Ibid.

[513] OECD (2019) 'Italy', *Pensions at a glance 2019: Country profiles - Italy.* Available at: https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Italy.pdf.

[514] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[515] Ibid.

[516] Atkinson, A., Harrison, D., Messy, F.-A., and Yermo, J. (2012), 'Lessons from National Pensions Communication Campaigns', *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 18. Available at https://www.oecd.org/finance/private-pensions/50255339.pdf.

[517] Ibid.

[518] Ibid.

[519] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[520] Ibid.

[521] Ibid.

[522] Ibid.

in Italy have been generous.[523] As described above, though, reforms have been introduced that will significantly reduce replacement rates from the public pension in the future.[524] These reductions in replacement rates from the public pension imply that replacement rates from occupational and personal pensions must increase if replacement rates are to be maintained in aggregate. All other things being equal, this suggests a need to increase saving in occupational and personal schemes. However, awareness of the implications of the 1990s reforms to the public pension was low at the time of auto-enrolment's introduction.[525] Further, levels of financial literacy more broadly were low amongst employees in Italy.[526] Surveys by COVIP found that pension awareness and financial literacy were positively associated with pension fund membership; there is some evidence that the effect of pension awareness on the likelihood of pension fund membership was greater than that of financial literacy.[527] The literature reports that employees who were already engaged with the issue of saving for retirement were more likely to participate in an occupational pension as a result of the *TFR* scheme.[528]

5.1.5.5.The Global Financial Crisis

It has been suggested that the Global Financial Crisis (GFC) reduced the impact of the introduction of auto-enrolment in Italy.[529] The GFC occurred shortly after the introduction of the *TFR* auto-enrolment scheme. It is likely to have reduced incomes and increased uncertainty and risk aversion for many employees and employers in Italy;[530] as a consequence, it has been suggested that it may have encouraged opt-outs from saving for a pension through the *TFR* auto-enrolment scheme (especially given that opting out meant using the contributions for severance pay provision instead).[531] It should be noted, though, that the number of employees whose flow of *TFR* contributions is being directed to pension saving without the employee having explicitly opted for this has remained small in recent years.[532] This latter fact suggests that other factors continue to play an important role in explaining the small number of employees being automatically enrolled without their explicit agreement.

5.1.6. Looking forward

The number of employees whose flow of *TFR* contributions is being directed to pension saving without the employee having explicitly opted for this continues to be low.[533] However, occupational pension participation is growing in Italy through another mechanism.

In 2015, a collective bargaining agreement in the construction industry made membership of *Prevedi*, the industry-wide pension fund, mandatory.[534] Employer contributions at a rate specified

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[523] Carrera, L. (2012), 'The eurozone crisis has accelerated the reform of public pensions in Italy, but future pensions may no longer provide an adequate income in retirement', *EUROPP blog*, London School of Economics. Published 2nd November 2012. Available at https://blogs.lse.ac.uk/europpblog/2012/11/02/italy-pension-system/.

[524] Centre for Applied Research in Finance (CAREFIN), Università Bocconi (2010), 'Pension Funds in Italy', available at http://www.iopsweb.org/resources/48238257.pdf; Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[525] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[526] Ibid.

[527] Ibid.

[528] Pensions Policy Institute (2017), 'The impact of automatic enrolment in Italy, New Zealand and the USA'. *PPI Briefing Note Number 99*, available at https://www.pensionspolicyinstitute.org.uk/media/1367/201706-bn99-phd-the-impact-of-automatic-enrolment-in-italy-new-zealand-and-the-usa.pdf.

[529] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[530] Ibid.

[531] Ibid.

[532] See, e.g., Table 1.7 of COVIP, 'Relazione per l'anno 2019'. Available at https://www.covip.it/sites/default/files/relazioneannuale/1592977485covipra2019.pdf.

[533] Ibid.

[534] Bizzotto, E. (2017), 'Pension funds and behavioural finance: analysis of pension communication strategies in relation to the role of biases in retirement decisions'. Available at http://dspace.unive.it/bitstream/handle/10579/10738/843295-1213503.pdf?sequence=2.

in the agreement were made compulsory, but employee contributions were voluntary. COVIP granted the construction sector an exemption from the requirement to transfer the *TFR* to an occupational pension fund upon an employee joining it, allowing for just the employer contributions to be mandatory.[535] As a result, *Prevedi* became the largest pension fund by membership in Italy, having more than 500,000 members in 2015.[536] It previously had fewer than 40,000 members.[537] However, in the case of more than 92% of members only the 'contractual' contribution by employers was made.[538]

Since the introduction of this mechanism in the construction sector, other sectors have introduced similar mechanisms. Similar agreements are now in place for 11 industry-wide pension funds. As of 2019, the contractual pension funds with so-called 'contractual' members (those who are members by virtue of the collective bargaining agreement, rather than because they have actively chosen to join) were, in descending order of membership:[539]

- *Prevedi*;
- *Laborfonds*;
- *Previdenza Cooperativa*;
- *Priamo*;
- *Solidarietà Veneto*;
- *Previambiente*;
- *Eurofer*;
- *Fondapi*;
- *Perseo Sirio*;
- *Byblos*;
- *Astri.*

In total, membership of these funds currently stands at around 1.7 million. Of these, around 1.1 million are 'contractual' members.[540] This is a small proportion of workers in Italy, equivalent to just over 4% of the labour force.[541] However, there has been interest in the wider use of such agreements.[542]

5.1.7. Lessons learned

Italy's experience of auto-enrolment yields the following lessons for other countries considering introducing an auto-enrolment scheme:

- Auto-enrolment schemes should be designed in a way that makes **effective use of the behavioural phenomenon of inertia.** The requirement for employers to provide employees within the scheme's scope with a form by which they could opt out or confirm their adherence to the default encouraged employees to make an active choice. This was reinforced by the emphasis in communications on the 'importance to choose now'.
- Auto-enrolment schemes should be introduced **with plenty of notice and in a phased manner.** There are two reasons for this. Firstly, it allows stakeholders time to understand and prepare for their obligations in the auto-enrolment scheme. Secondly, it allows time

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[535] Ibid.

[536] Ibid.

[537] Ibid.

[538] Ibid.

[539] COVIP, 'Relazione per l'anno 2019'. Available at https://www.covip.it/sites/default/files/relazioneannuale/1592977485covipra2019.pdf.

[540] Ibid.

[541] Ibid. and COVIP, 'Supplementary pension funds in Italy at end-2019: Main data', available at https://www.covip.it/sites/default/files/relazioneannuale/annual_report_2019_-_main_data.pdf.

[542] Adams, D. (2017), 'Pensions in Italy: Heading in a new direction'. Available at https://www.europeanpensions.net/ep/images/EP_Nov_17_Italy.pdf.

for a communication campaign aimed at raising awareness both about auto-enrolment and about pension issues in general.

- **External incentives** should be considered when designing an auto-enrolment scheme. The *TFR* has value for employees as a severance pay provision and for employers as a cheap source of financing. Hence, there is a disincentive to use funds previously used for the *TFR* to save for a pension.
- It is important to select an **appropriate default investment strategy**.
- The **wider pension system** within which the auto-enrolment scheme exists is important. If public pensions are generous, or are perceived to be so, this reduces the incentive to participate in an auto-enrolment pension scheme.
- Finally, **financial literacy and pension awareness** are important to the success of auto-enrolment. A clear **information and communication campaign** ahead of the introduction of auto-enrolment is important to support financial literacy and pension awareness amongst savers and employers.

These 'lessons learned' reflect LE Europe's judgement based on the findings from the literature that are described above.

5.2. Lithuania

Background and context for the introduction of auto-enrolment

Lithuania's pension system consists of a pay-as-you-go (PAYG) system, a statutory funded pension scheme, and voluntary, tax-favoured private savings.[543] The PAYG system still makes up the majority of pension payments, as the statutory private funded pension scheme and the voluntary scheme were only added in 2003.[544]

The PAYG system consists of two components; a basic flat-rate pension, and a supplemental earnings related pension.[545] The basic part of the pension is calculated based on the number of years that an individual has contributed. Individuals who have contributed to the system for 32 years in 2021 are entitled to a full pension, while those who have contributed for under 15 years are entitled to 90% of the basic pension[546].[547] The earnings-related part of the pension is capped at five times the former wage.

The statutory funded pension scheme is a defined contribution scheme that was introduced in 2004 and was voluntary until January 2019.[548] By 2018, 85% of insured individuals had opted into the pension scheme. Until January 2019, the statutory pension scheme was funded based on a 2/2/2 principle, with 2% of funding coming from social security, 2% from an individual's salary and 2% from a state subsidy.

The third, and smallest, component of the Lithuanian pension system is a voluntary personal pension contract. Contributions into these savings accounts are tax deductible up to a ceiling of 25% or €2000. Less than 3% of the working age population had a voluntary personal pension in 2018.[549]

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[543] OECD (2018), *OECD Economic Surveys: Lithuania 2018*. OECD publishing, Paris. Available at: https://www.oecd-ilibrary.org/sites/eco_surveys-ltu-2018-6-en/index.html?itemId=/content/component/eco_surveys-ltu-2018-6-en.

[544] Ibid.

[545] Ibid.

[546] This will gradually increase to 35 years by 2027, at which point individuals who did not contribute to the system for at least 15 years will not receive a pension at all. See OECD (2018), *OECD Economic Surveys: Lithuania 2018*. OECD publishing, Paris. Available at: https://www.oecd-ilibrary.org/sites/eco_surveys-ltu-2018-6-en/index.html?itemId=/content/component/eco_surveys-ltu-2018-6-en.

[547] Sodra (2021), Retirement Pension. Available at: https://www.sodra.lt/en/benefits/information-for-residents/i-want-to-receive-a-pension/retirement-pension

[548] OECD (2018), *OECD Economic Surveys: Lithuania 2018*. OECD publishing, Paris. Available at: https://www.oecd-ilibrary.org/sites/eco_surveys-ltu-2018-6-en/index.html?itemId=/content/component/eco_surveys-ltu-2018-6-en.

[549] Ibid.

The auto-enrolment scheme

Auto-enrolment pension scheme was implemented in Lithuania from January 2019 in a reform of the statutory funded scheme.[550] The State Social Insurance Fund Board (Sodra) is responsible for enrolling all workers under the age of 40, including self-employed and temporary workers.[551] Individuals are randomly allocated to pension providers; however, it is possible to switch to a different provider.

From 2023, the minimum contribution for all members of the auto-enrolment scheme will be 3%, and this will be accompanied by a government contribution of 1.5% of the average wage in Lithuania in the previous year.[552] This minimum contribution rate applied from 2019 for those contributing according to the 2/2/2 principle before the introduction of auto-enrolment.[553] For others, the minimum contribution rate will be 1.8% in 2019, rising by 0.3 percentage points per year until reaching 3% in 2023.[554] The government contribution for such individuals will be 0.3% of the average wage in 2019 and will rise by 0.3 percentage points to 1.5% in 2023.[555] Employer contributions are voluntary.[556] Individual contributions greater than 3% are permitted and are exempt from taxes.[557] Contributions to the scheme no longer involve the redirection of social security contributions.

There is a six-month period between the date that individuals are enrolled and the date on which they begin to contribute to the scheme in which individuals are able to opt-out.[558] Once the six-month period has passed individuals may not exit the scheme.[559] Although this postpones the start of contributions, the delay facilitates the administration of the scheme.[560] Workers who chose to opt out are re-enrolled automatically every three years.[561]

Results of the auto-enrolment scheme

As auto-enrolment was only introduced in 2019, there appears to be only limited evidence so far on its impact.

5.3. New Zealand

New Zealand has had a positive experience in introducing auto-enrolment. The introduction of auto-enrolment was followed by a very large increase in the coverage of occupational pensions, reversing what had been a trend of decline.[562] New Zealand has seen cumulative opt-out rates decline year-on-year and they stand at a low level (approximately 15% in 2018).[563] The mechanism was introduced in 2007, and so can be considered to be established. One distinguishing feature of New Zealand's auto-enrolment mechanism is the financial incentives associated with it; these include employer contributions, the possibility of contribution holidays,

[550] OECD (2019), Financial Markets Insurance and Pensions: Inclusiveness and Finance. Available at www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm

[551] Ibid.

[552] Betterfinance.eu. 2020. Pension Savings: The Real Return Country Case: Lithuania. [online] Available at: <https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Lithuania.pdf> [Accessed 5 March 2021].

[553] Ibid.

[554] Ibid.

[555] Ibid.

[556] OECD (2019), Financial Markets Insurance and Pensions: Inclusiveness and Finance. Available at www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[557] Ibid.

[558] Ibid.

[559] Ibid.

[560] Ibid.

[561] Ibid.

[562] Ibid.

[563] Ibid.

the ability to make withdrawals early in certain circumstances and government contributions.[564] The case of New Zealand is also different from that of the UK in that auto-enrolment was introduced in a context of less developed capital markets and a less developed savings culture in New Zealand compared to the UK.[565]

KiwiSaver is the auto-enrolment pension scheme in New Zealand. Introduced under the KiwiSaver Act 2006[566], auto-enrolment into KiwiSaver started in July 2007 and was applied to employees upon job change or upon entrance into the labour force if the individual was aged 18 or older and employed in a permanent position. Individuals already in employment, self-employed or unemployed could choose to opt-in.

Overall, KiwiSaver has been hailed as a success and is generally positively viewed by participants. In December 2020, 87% of the working population were enrolled in KiwiSaver. This compares to 14.7% of the workforce participating in occupational pension schemes prior to the introduction of KiwiSaver.[567]

5.3.1. Description of the pension system prior to the introduction of the auto-enrolment scheme

The New Zealand Superannuation (NZS) is a flat rate public pension available to all residents aged 65 or older who have lived in the country for 10 years since age 20, or for 5 years since age 50. NZS was established in 2001 and is still in effect today. In 2021, the weekly payment of the NZS is NZD$506.64 for single people living alone or with a dependent child, NZD$466.03 for single people living with someone who is not a partner and NZD$384.46 each for a couple. The NZS is funded through general taxation and provided a replacement rate of around 42 percent of average earnings between 2014 and 2018[568]. The NZS is subject to income tax and benefits are adjusted according to changes in the consumer price index (CPI).

In 2006, the NZS represented the largest single item in the Government budget totalling 3.4 percent of gross domestic product (GDP). Worries regarding the sustainability of the NZS were exacerbated by New Zealand's ageing population. Indeed, the number of people aged 65 or older doubled in New Zealand between 1970 and 2005, and in 2006 the number of people aged 65 or older represented 12 percent of the population[569]. To offset the projected increase in benefit costs from the ageing population, the New Zealand Superannuation Act 2001 was introduced to create a separate investment fund called the New Zealand Superannuation Fund (NZSF, or the Fund). The Treasury is responsible for calculating the amount of the annual Government capital contribution in each fiscal year[570]. The Funds' assets are managed and administered by The Guardians of New Zealand Superannuation, a separate, arm's length Government organisation[571].

Prior to KiwiSaver, individuals could supplement their NZS by saving through voluntary supplementary retirement plans (called superannuation plans) available through employers or

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[564] Ibid.

[565] O'Connell, A. (2009), 'KiwiSaver: A model scheme?', *Social Policy Journal of New Zealand*, Issue 36. August 2009. Available at https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/journals-and-magazines/social-policy-journal/spj36/kiwisaver-a-model-scheme.pdf.

[566] KiwiSaver Act 2006, available at: https://www.legislation.govt.nz/regulation/public/2006/0358/latest/whole.html, last consulted on 05/02/2021.

[567] New Zealand Ministry of Economic Development, Insurance and Superannuation Unit. 2006. Report of the government actuary for the year ended 30 June. Available at: https://www.parliament.nz/resource/en-NZ/48DBHOH_PAP14297_1/9ed75778f6a7cfb34c65dfcdb86fe43a138f46d6

[568] OECD. 2021. *Pensions - Net pension replacement rates - OECD Data*. [online] Available at: <https://data.oecd.org/pension/net-pension-replacement-rates.htm#indicator-chart> [Accessed 11 May 2021].

[569] E. Kritzer, B., 2007. *KiwiSaver: New Zealand's New Subsidized Retirement Savings Plans*. [online] Social Security Administration Research, Statistics, and Policy Analysis. Available at: <https://www.ssa.gov/policy/docs/ssb/v67n4/67n4p113.html> [Accessed 10 May 2021].

[570] Treasury.govt.nz. 2020. *New Zealand Superannuation Fund (NZSF) Model Guide*. [online] Available at: <https://www.treasury.govt.nz/system/files/2020-09/nzsf-model-guide-sep20.pdf> [Accessed 13 May 2021].

[571] E. Kritzer, B., 2007. *KiwiSaver: New Zealand's New Subsidized Retirement Savings Plans*. [online] Social Security Administration Research, Statistics, and Policy Analysis. Available at: <https://www.ssa.gov/policy/docs/ssb/v67n4/67n4p113.html> [Accessed 10 May 2021].

directly from an insurance or other financial services company[572]. Superannuation plans could be DB or DC in nature. Employment-related superannuation plans, where workplace or employment status controls eligibility, do not require the employer to contribute to the plan[573].

5.3.2. *Timeline of the introduction of the auto-enrolment scheme*

Auto-enrolment into KiwiSaver started in July 2007, with the introduction of the KiwiSaver Act 2006[574]. KiwiSaver obliges employers to enrol new permanent workers aged between 18 and 65 with an employment contract of over 28 days. If an employee's employment contract is of less than 28 days but subsequently goes beyond 28 days those employees also have to be automatically enrolled. Initially, employer contributions were tax free. Upon introduction of KiwiSaver there were several government incentives for those with a KiwiSaver plan. The incentives comprised of government contributions, a NZD$40 government fee subsidy to offset KiwiSaver providers' charges and a one-off 'kick-start' contribution upon opening or being enrolled into a KiwiSaver.

Employer contributions came into effect in April 2008, starting at 1% of gross salary and increasing 1% each year until April 2011 when they reached 4%. In an effort to make KiwiSaver more affordable for employers, savers (particularly those on low incomes) and taxpayers, several adjustments came into effect in April 2009. The employer tax credit and the $40 annual fee subsidy to KiwiSaver account holders were eliminated. Additionally, the minimum employee contribution was reduced from 4% of gross earnings to 2%. The changes to KiwiSaver were implemented in response to increasing costs caused by higher than-anticipated take-up[575].

In April 2011, default minimum contribution rates for employees were set at 4% of gross salary. However, employees could choose to contribute a lower rate of 2%[576]. Government contributions were reduced from $1,042 per annum to $521 per annum. By April 2013, both employers and employees were required to contribute at least 3%. Additionally, KiwiSaver became subject to Employer Superannuation Contribution Tax (ESCT) in 2012. ESCT is a tax deducted from employer contributions to their employees' KiwiSaver accounts or superannuation schemes. Each employee will have an ESCT rate depending on their salary and how long they have been employed for. Since April 2021, a new 39% ESCT rate has been introduced for those employees earning over NZD$216,000 per annum[577]. Employee contributions to KiwiSaver or superannuation schemes are not subject to ESCT, although they are taxed at the employee's marginal rate of income tax[578]. The Government's $1,000 kick start payment for new KiwiSaver plans was removed in May 2015[579]. In 2018, there were proposals to include over 65s in KiwiSaver and adding 6% and 10% contributions bands, both proposals were subsequently introduced in 2019[580].

5.3.3. *Description of the characteristics of the auto-enrolment scheme*

As already noted, since 2007, employers have been legally obliged to automatically enrol new permanent workers aged between 18 and 65 with a contract of over 28 days into a workplace

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572 Social Security Administration Research, Statistics, and Policy Analysis. 2021. KiwiSaver: New Zealand's New Subsidized Retirement Savings Plans. [online] Available at: <https://www.ssa.gov/policy/docs/ssb/v67n4/67n4p113.html#mn8> [Accessed 19 April 2021].

573 Oecd.org. 2008. Pension Country Profile: New Zealand. [online] Available at: <https://www.oecd.org/finance/private-pensions/42574991.pdf> [Accessed 19 April 2021].

574 KiwiSaver Act 2006, available at: https://www.legislation.govt.nz/regulation/public/2006/0358/latest/whole.html, last consulted on 05/02/2021.

575 Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

576 Section 64 of KiwiSaver Act 2006.

577 Mercerfinancialservices.co.nz. 2021. *NEW EMPLOYER SUPERANNUATION CONTRIBUTION TAX (ESCT) RULES FROM 1 APRIL 2021 WILL IMPACT YOU*. [online] Available at: <https://www.mercerfinancialservices.co.nz/contribution-tax-esct-rules.html.html> [Accessed 13 May 2021].

578 OECD (2020), 'Financial incentives for funded private pension plans'. Available at https://www.oecd.org/daf/fin/private-pensions/Financial-Incentives-for-Funded-Pension-Plans-in-OECD-Countries-2020.pdf.

579 Fsc.org.nz. 2021. *A Brief History of KiwiSaver*. [online] Available at: <https://www.fsc.org.nz/site/fsc1-dev/20180930_A%20Brief%20History%20of%20KiwiSaver%20-%20Financial%20Services%20Council.pdf> [Accessed 10 May 2021].

580 Norton, M., 2019. *KiwiSaver changes in 2019: What are they? - Canstar*. [online] Canstar. Available at: <https://www.canstar.co.nz/kiwisaver/kiwisaver-changes-in-2019-what-are-they/> [Accessed 10 May 2021].

retirement savings plan. While individuals can have one KiwiSaver account only, persons with multiple jobs can contribute to their KiwiSaver from each of their jobs[581].

Individuals can opt-out of the plan between the second and eighth week of their employment. The opt-out period for employees may be extended from 8 weeks to a maximum of 3 months[582] after the first contribution has been deducted if:

- They did not receive a KiwiSaver employee information pack (KS3) within 7 days of starting their job;
- An employer has not chosen a provider and the automatically enrolled employee did not receive a product disclosure statement for the default KiwiSaver scheme to which they were allocated;
- Their employer has chosen a provider and the automatically enrolled employee did not receive a product disclosure statement from their employer for the employer's chosen KiwiSaver scheme;
- Events outside their control meant they could not deliver their opt-out notice on time;
- They were automatically enrolled by mistake.

If the employees are under 19 years of age, they may be able to opt out after the initial opt-out period if:[583]

- Their employer incorrectly enrolled them before they turned 18;
- They were incorrectly enrolled and didn't have their guardians' consent to join KiwiSaver;
- They are under 16 and their guardian provides consent.

They may not opt out if:

- They contacted a provider and chose their own KiwiSaver scheme;
- Their guardians signed them up for KiwiSaver or gave consent for them to join;
- They opted in directly after they turned 18.

If an individual is not automatically enrolled but joins directly with a provider, they will not be able to opt out but may be able to take a savings suspension.

Until 2014, employers could apply for an exemption from automatically enrolling their employees into a KiwiSaver plan if their existing superannuation plans met certain criteria, such as providing benefits that are equal to or greater than the KiwiSaver's minimum benefit requirements[584] [585]. If an employer does not participate in automatic enrolment but an employee wants to join KiwiSaver, employers are required to enrol the employee and make deductions from their pay.[586] According to the Financial Markets Authority there are currently 146 KiwiSaver exempt employers[587]. Individuals who either are not in the labour force or are self-employed can opt into KiwiSaver with a provider of their choosing. Workers are also eligible for KiwiSaver if they are entitled to be in New Zealand indefinitely. State service employees who are serving overseas can also opt into KiwiSaver if they remain employed on New Zealand terms and conditions, are serving in a jurisdiction where offers of KiwiSaver scheme membership are lawful and meet the other eligibility requirements[588].

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[581] Social Security Administration Research, Statistics, and Policy Analysis. 2021. KiwiSaver: New Zealand's New Subsidized Retirement Savings Plans. [online] Available at: <https://www.ssa.gov/policy/docs/ssb/v67n4/67n4p113.html#mn8> [Accessed 19 April 2021].

[582] Section 18 of KiwiSaver Act 2006.

[583] Section 59A-59CB, KiwiSaver Act 2006.

[584] The 'exempt employer' provisions of the KiwiSaver Act 2006 were repealed on 1 December 2014.

[585] Section 147 of KiwiSaver Act 2006.

[586] Section 34 of KiwiSaver Act 2006.

[587] Fma.govt.nz. 2021. *Financial Markets Authority*. [online] Available at: <https://www.fma.govt.nz/compliance/kiwisaver/kiwisaver-exempt-employers/> [Accessed 13 May 2021].

[588] Social Security Administration Research, Statistics, and Policy Analysis. 2021. KiwiSaver: New Zealand's New Subsidized Retirement Savings Plans. [online] Available at: <https://www.ssa.gov/policy/docs/ssb/v67n4/67n4p113.html#mn8> [Accessed 19 April 2021].

The minimum contribution rates for employees and employers are 3% of gross salary; this is the default contribution rate. Individuals can change their contribution rate to 4%, 6%, 8% or 10% of their annual gross salary.[589] Additional lump-sum voluntary contributions can be made into a KiwiSaver plan at any time.[590] Once a voluntary payment is made, it is locked in until the savings can be withdrawn. In March 2020, the average contribution to KiwiSaver was $1,972 per annum[591]. This average contribution level includes employee, employer, voluntary and government contributions. In the year ended June 2020, the average annual household equivalised income (after housing costs are deducted) was NZD $37,374[592].

All contributions to KiwiSaver are administered by the Inland Revenue through a deduction regime that is parallel to the Pay As You Earn (PAYE) income tax system. All contributions (employer and employees) are sent to the Inland Revenue which then passes them to each saver's KiwiSaver scheme. The administrative requirements are significantly simplified by the fact that a person may belong to only one KiwiSaver scheme at a time[593]. This central 'clearing house' is a key aspect of KiwiSaver's administrative arrangements.

An employee who chooses to join or who is automatically enrolled and does not opt out, must contribute for a minimum of one year. After that, employees can suspend their contributions. Non-employees, e.g., the self-employed, are not subject to this 1-year minimum requirement as they choose their own contribution level.

KiwiSaver schemes are provided by banks, insurance companies and fund management companies. Individuals who do not choose a KiwiSaver fund will either be allocated to one of the default providers by Inland Revenue or allocated to their employer's scheme if their employer has chosen a KiwiSaver scheme[594]. KiwiSaver default funds are conservative in their investment approach and must, by law, include an asset allocation of at least 15 but no more than 25 percent to growth assets. From 1st December 2021, default funds will be balanced in their investment approach, including more growth assets than the conservative strategy, charge lower fees and be unable to invest in fossil fuel production and illegal weapons[595]. Default fund providers are chosen every 7 years by the government.[596] They are assessed on their investment capability[597], corporate strength, administrative capability, track record and stability and provision of investment education to default members[598]. The contract for the current default providers will expire on 1st December 2021[599].

KiwiSaver scheme savers can choose their own fund to invest in. While there are hundreds of KiwiSaver funds, they are grouped into five different types:

- Defensive

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[589] Section 64 of KiwiSaver Act 2006.

[590] Sections 73-74 of KiwiSaver Act 2006.

[591] Fsc.org.nz. 2020. Spotlight on KiwiSaver. [online] Available at: <https://www.fsc.org.nz/site/fsc1/Financial%20Services%20Council%20-%20KiwiSaver%20Spotlight%20March%202020%20-%20Updated%2010%20June%202020.pdf> [Accessed 15 April 2021].

[592] Stats.govt.nz. 2021. *Household income and housing-cost statistics: Year ended June 2020 – corrected | Stats NZ.* [online] Available at: <https://www.stats.govt.nz/information-releases/household-income-and-housing-cost-statistics-year-ended-june-2020#:~:text=paying%20for%20housing.-,In%20the%20year%20ended%20June%202020%2C%20the%20average%20annual%20household,costs%20are%20deducted)%20was%20%2437%2C374.> [Accessed 13 May 2021].

[593] Section 53, KiwiSaver Act 2006.

[594] Mbie.govt.nz. 2021. *Ministry of Business Innovation & Employment.* [online] Available at: <https://www.mbie.govt.nz/assets/f214ed384d/questions-and-answers-kiwisaver-default-scheme-providers.pdf> [Accessed 13 May 2021].

[595] Financial Markets Authority 2021. *New KiwiSaver default providers* [online]. Available at: https://www.fma.govt.nz/investors/kiwisaverandsuperannuation/kiwisaver-default-provider-changes-2021/ [Accessed 10 June 2021].

[596] Section 132 of KiwiSaver Regulations 2006.

[597] Treasury.govt.nz. 2019. Review Of The Kiwisaver Default Provider Arrangements. [online] Available at: <https://www.treasury.govt.nz/sites/default/files/2019-08/kiwisaver-default-consultation.pdf> [Accessed 21 January 2021].

[598] Ministry of Business, Innovation and Employment (New Zealand) (2014). 'Existing default KiwiSaver provider arrangements', available at: https://www.mbie.govt.nz/business-and-employment/business/financial-markets-regulation/kiwisaver/existing-default-kiwisaver-provider-arrangements/.

[599] Financial Markets Authority 2021. *New KiwiSaver default providers* [online]. Available at: https://www.fma.govt.nz/investors/kiwisaverandsuperannuation/kiwisaver-default-provider-changes-2021/ [Accessed 10 June 2021].

- Conservative
- Balanced
- Growth
- Aggressive

Each fund can hold a mix of assets and are grouped on their exposure to growth assets (shares, commercial property, and derivatives). Participants can hold multiple funds but can only invest with one provider.

Since the introduction of KiwiSaver, providers have been required to implement a conservative default investment strategy.[600] When KiwiSaver was introduced, it was envisaged that default funds would serve merely as a 'parking space' for savers' capital, with savers choosing to move to different funds in search of higher returns, especially given the obligations that providers have to provide financial education to savers.[601]

However, from 1st December 2021, providers will be required to implement balanced default investment strategies. This shift comes in light of evidence that around 15% of all KiwiSaver members, and approximately one-third of auto-enrolled members, are staying in the default fund without actively choosing to do so, indicating that the default funds are often not serving as a transitory 'parking space' as was envisaged.[602] There are concerns that higher returns could be achieved without an unacceptable rise in risk relative to long-term use of a conservative investment strategy.

As of August 2019, all default providers charged a management fee defined as a percentage of the saver's capital and most charged a fixed monthly fee; other charges are also present.[603] Fixed fees disproportionately impact capital accumulation for lower income savers, since lower income savers will make lower contributions and fixed fees will therefore be larger in relative terms.[604] In addition, it was expected that fee rates would fall as assets under management (AuM) grew, but fees have not declined at the rate that was expected.[605] Fees are not subject to an explicit cap; rather, they are required not to be unreasonable.[606] Amongst conservative KiwiSaver funds, the mean five-year average rate of annual fees – excluding fixed membership fees – to December 2020 was approximately 1.1%.[607] In that same period, those funds achieved, on average, gross five-year returns before costs of 8.9%.[608] In comparison, amongst non-KiwiSaver managed funds in New Zealand, total annual fund fees are approximately 1.5%.[609] For those funds, mean 5-year average gross returns were approximately 6.2%.[610]

Default providers are selected by the state every seven years, on the basis of their investment capability, corporate strength, administrative capability, track record and stability and provision of investment education to default members.[611] As of May 2021, there were nine default providers; from 1st December 2021, there will be six, with four of these being incumbent default providers

[600] Ministry of Business, Innovation & Employment (New Zealand) (2019), 'Review of the KiwiSaver Default Provider Arrangements', Discussion paper. August 2019. Available at https://www.mbie.govt.nz/dmsdocument/6567-review-of-kiwisaver-default-provider-arrangements-discussion-paper.

[601] Ibid.

[602] Ibid.

[603] Ibid.

[604] Ibid.

[605] Ibid.

[606] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at https://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[607] Financial Markets Authority (New Zealand), 'FMA KiwiSaver Tracker'. Available at https://public.tableau.com/app/profile/fmaadmin/viz/FMAKiwiSaverTracker/Story1.

[608] Ibid.

[609] Financial Markets Authority (New Zealand), 'Consolidated managed fund data'. Available at https://www.fma.govt.nz/news-and-resources/reports-and-papers/managed-fund-data/.

[610] Ibid.

[611] See New Zealand country fiche.

and the other two being new default providers (meaning that five of the incumbent default providers will no longer serve as default providers).[612]

Persons who contribute to a KiwiSaver account will benefit from government contributions (see below). Those contributing to KiwiSaver through their workplace will also benefit from employer contributions. Employers can establish a 'total remuneration' arrangement whereby a fixed amount of remuneration is set for each employee and if the employee joins KiwiSaver, the cost of employer contributions come out of the employee's salary[613]. [614] [615]

Each year, the government contributes 50 cents on every dollar for contributions up to $1042.86, for a maximum subsidy of $521.43 a year[616]. Individuals are eligible for the government contribution if they are over 18 and either:

- Live mainly in New Zealand;
- Are a government employee serving outside New Zealand; or,
- Are working overseas as a volunteer, for token payment, or for a charitable organisation named in the Student Loan Act regulations, and the work meets one or more of the requirements set out in the Student Loan Scheme Act 2011.

Eligibility for the government contribution stops when the participant turns 65. Those who joined the KiwiSaver after 1 July 2019 can get the government contribution up until they turn 65, those who joined before 1 July 2019 can receive government contributions until they have been a KiwiSaver member for 5 years or turn 65, whichever is later. Those who reach the age of eligibility to stop contributing part-way through the year receive a government contribution based on how many days in the year they have been eligible for the government contribution.

Individuals are eligible to withdraw all KiwiSaver funds when they reach the age of withdrawal eligibility (currently 65) but are not required to.[617] Those who keep working after the age of 65 can choose to stop paying into their KiwiSaver. Government contributions will stop when the participant turns 65 and employer contributions may stop depending on the terms of the employment contract.

Withdrawals from KiwiSaver accounts are tax-free as tax is paid on contributions and investment returns[618]. Investment returns are taxed at 10.5%, 17.5% or 28%[619] depending on the saver's taxable income level and whether the scheme has portfolio investment entity (PIE) status.

Those who joined before 1 July 2019 and were aged between 60-64 were locked-in to KiwiSaver for 5 years. These individuals now have the option to withdraw funds at 65 or withdraw funds after the full 5-year term. Those who opt out of the 5-year lock in period will stop getting employer and government contributions. If they choose to stay in for the 5-year term and are still working, they will continue to receive government and employer contributions.

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612 Financial Markets Authority (New Zealand) (2021), 'New KiwiSaver default providers'. Available at https://www.fma.govt.nz/investors/kiwisaverandsuperannuation/kiwisaver-default-provider-changes-2021/.

613 Copeland, J., 2015. *Article: KiwiSaver a total remuneration approach - Copeland Ashcroft*. [online] Copeland Ashcroft. Available at: <https://www.copelandashcroft.co.nz/article-kiwisaver-a-total-remuneration-approach/> [Accessed 13 May 2021].

614 Section 101A, KiwiSaver Regulations 2006.

615 Section 67, KiwiSaver Regulations 2006.

616 The subsidy also applies to the self-employed and any other contributor who can choose to contribute any amount either as a lump sum or as a regular amount. The maximum subsidy applies only to contributions of up to $1,042.86 a year.

617 Clause 4, Schedule 1, KiwiSaver rulesAct 2006 – actually, the 'retirement' withdrawal is expressed as being the current state pension age. That is age 65.

618 Article 8, Schedule 1, KiwiSaver rules, available at: https://www.legislation.govt.nz/act/public/2006/0040/latest/DLM379487.html?search=sw_096be8ed81a4aa4f_home_25_se&p=1#DLM379497. Last consulted on 05/02/2021.

619 The top rate of 28% is a concession that is a feature of the 'Portfolio Investment Entity' (PIE) tax treatment of collective investment vehicles.

Those who have been in a KiwiSaver or an equivalent eligible scheme for 3 or more years may be able to take out most of their pension savings to purchase a first home.[620] They can withdraw the individual, employer and government contributions, the interest earned and the fee subsidies. At least $1,000 must be left in the account and funds which have been transferred from an Australian Complying Superannuation scheme[621] cannot be withdrawn.[622] The Government also offers a First Home Grant for those who have been contributing to a KiwiSaver scheme for at least 3 years. The grant can be up to $10,000 and those who already owned a home may still qualify.

In the case of financial hardship, participants may be able to withdraw some or all of their personal and employer contributions[623]. Those who have serious health issues can withdraw all or some of their KiwiSaver funds. Serious health issues can be either:

- An illness, injury or disability that permanently affects the ability to work or poses a risk of death;[624]
- A life-shortening congenital condition that lowers life expectancy below the age of eligibility for New Zealand superannuation (currently 65).[625]

Withdrawals can include personal, employer and government contributions, the $1,000 kickstart (if they received it), fee subsidies and any interest earned. Those with life shortening conditions will no longer receive employer or government contributions once they retire. Participants can apply for a savings suspension to stop their contributions after 12 months of membership. Those experiencing financial hardship can apply for a savings suspension prior to 12 months of membership[626]. While on a savings suspension, individuals will not get employer contributions unless their employment agreement states otherwise. If an individual wants to get government contributions, they may need to make voluntary payments. KiwiSaver funds may also be accessed in the case of bankruptcy or divorce[627]. Additionally, funds which have been transferred from a foreign superannuation fund may be withdrawn to pay foreign tax or foreign student loans.

Persons moving to Australia permanently have the option to transfer their KiwiSaver funds to an Australian superannuation scheme. Persons who contributed to KiwiSaver and moved abroad to a country other than Australia can withdraw their contributions, employer's contributions, the $1,000 kickstart (if they received it), fee subsidies and interest earned provided that they lived overseas for at least one year. Government contributions may not be withdrawn and are refunded to the government.

Box 4 Retirement savings from an occupational auto-enrolment pension scheme in New Zealand – Illustrative examples

It is assumed that an individual becomes automatically enrolled into an occupational pension scheme at the age of 18. The following age and income assumptions are made for each gender:

Input/assumption	Male	Female
Retirement age[1]	65	65
Life expectancy at age 65[2]	85	87
Gross annual average earnings at age of enrolment[3]	€25,403	€21,384
Annual earnings growth[4]	2.5%	2.5%

[620] Clause 8, Schedule 1, KiwiSaver Act 2006.

[621] Schemes which are regulated under the Australian Prudential Regulation Authority (APRA).

[622] Clause 8(4), Schedule 1, KiwiSaver Act 2006.

[623] Clause 10, Schedule 1, KiwiSaver Act 2006.

[624] Clause 12, Schedule 1, KiwiSaver Act 2006.

[625] Clause 12B, Schedule 1, KiwiSaver Act 2006.

[626] Section 102 of KiwiSaver Act 2006.

[627] KiwiSaver funds are included as part of relationship property even if it is in a single person's name. When there is a division of assets following a divorce KiwiSavers are included in that pool of assets.

Note: [1] Based on OECD data "Current retirement ages for a person who entered the labour force at age 22". This may be different to "Future retirement ages for a person who entered the labour force at age 22". [2] Based on OECD data "Life expectancy at age 65". [3] Based on 2020 NZ.Stat on weekly earnings for individuals aged between 20 and 24 years. Annual values calculated by multiplying by 52 and converted into euros using exchange rate of 0.59. [4] Based on OECD data "Average annual wages" and calculated using wages in current prices. Average annual growth computed over 2010 to 2019 and assumed to be the same for males and females.

It is assumed that a male remains in full-time employment from the age of enrolment to the retirement age. On the other hand, it is assumed that a female takes a total of six years out of work from the age of 30 for childcare[628] and returns to the workforce at the same level of earnings as when she left (adjusted for nominal earnings growth).

Contributions to the occupational pension scheme in each year of employment are assumed to be as follows:

- Employees contribute 3% of their gross earnings
- Employers contribute 3% of the employee's gross earnings
- The government contributes half of the employee's contribution with a ceiling of NZD 521.43 (€308).

During the accumulation phase, it is assumed that the annual rate of return on investment is 5.7% and management costs of the fund are assumed to be 0.5%.[629] The net rate of return of 5.2% is assumed to be constant throughout the saving period.

The following tax incentives are modelled. For comparability across countries, it is assumed that the pension pot accumulated at the time of retirement does not earn any additional income during the pay-out period (e.g., the individual does not purchase a life annuity scheme).

Aspect of retirement savings	Tax treatment
Contributions	Employee contributions are taxed at the marginal rate of income tax (excluding employee and employer social security contributions). Employers' contribution taxed as: If salary<=€9,912 (NZD 16,800), then 10.5% If salary from €9,913 to €33,984 (NZD<=16,801 to NZD 57,600), then 17.5% If salary from €33,985 to €49,560 (NZD<=57,601 to NZD 84,000), then 30.0% If salary greater than €49,561, then 33.0%. A salary greater than €127,440 is taxed at 39%. NZD/EUR exchange rate assumed to be 0.59.
Returns on investments	It is assumed that the scheme is a widely-held superannuation fund and returns are subject to a tax rate of 28%.
Funds accumulated	No tax applies on funds accumulated.
Pension income	Pension income is not taxed.

Source: OECD (2020), 'Financial incentives for funded private pension plans in OECD countries'.

Given the above inputs and assumptions, the table below provides pension income estimates in New Zealand broken down by gender and earnings.

[628] This is consistent with modelling scenarios made by Dekkers, et.al (2020). In reality, females may return to work sooner or on a part-time basis as well as have multiple career breaks; however, for simplicity, a one-off six-year break with no earnings is modelled.

[629] In 2019, the rate of return of the average balanced fund in KiwiSaver was 5.7%. From December 2021, balanced investment strategies will be the default in the KiwiSaver scheme. See New Zealand fiche.

Table 3 Retirement savings from an occupational auto-enrolment pension scheme in New Zealand – Illustrative examples

Gender	Male			Female		
Annual earnings at enrolment (€)	25,403 (average)	33% below average	33% above average	21,384 (average)	33% below average	33% above average
Total pension income (€)	374,924	267,205	466,170	251,106	174,805	316,342
Annual average payments over lifetime[1] (€)	18,746	13,360	23,309	11,414	7,946	14,379
Replacement rate[2]	24%	25%	22%	20%	21%	19%

Note: Marginal income tax rates are sourced from OECD data. [1] Annual average payments are calculated by dividing total pension income by the difference in retirement age and life expectancy age. [2] Replacement rates are calculated as [Annual average payments over lifetime divided by earnings immediately before retirement] ×100.

5.3.4. Evidence on the impact of the introduction of auto-enrolment

Qualitative evidence

Collard and Moore note that the addition of KiwiSaver to New Zealand's retirement income framework in 2007 can be considered both a process and a political success.[630] Despite the voluntary nature of the scheme, it has been incredibly successful at attracting members according to authors. They partly attribute multiparty support for KiwiSaver as a reason for its success. The high level of membership has been attributed to the Government financial incentives and effective communications strategy. Moreover, the initial financial incentives received a lot of media attention, highlighting the attractiveness of joining KiwiSaver[631].

According to a World Bank review of international experience in relation to matching contributions, New Zealand's KiwiSaver has proven to be very effective in achieving relatively high levels of participation in supplementary retirement saving.[632] There is a high level of participation despite the lack of tax incentives for pension contributions. The author mentions that the level of coverage likely reflects the combination of automatic enrolment, low opt out rates and substantial matching incentives offered by Government. The latter seems particularly true as evidenced by the high proportion of members with no sources of income opting into the scheme[633] [634].

Prior to implementation, providers perceived implementation as a big challenge for them and for Inland Revenue. This perception may have been due to the short timescales in which the scheme was to be implemented. Inland Revenue, particularly the relationship managers who acted as a point of contact for scheme providers regarding KiwiSaver, were viewed to be listening and consulting on concerns[635].

Following implementation, Inland Revenue carried out an official evaluation to assess the perception of KiwiSaver and effectiveness of its launch. The results showed that individuals

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630 Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

631 Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

632 Hinz, R., Holzmann, R., Tuesta, D., and Takayama, N. ed. (2013), Matching Contributions for Pensions: A Review of International Experience.

633 Ibid.

634 Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

635 Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

responded positively to the introduction of KiwiSaver and the administrative systems in place fared well despite the higher-than-expected volume of joiners. Despite the short implementation timeframe, both employers and providers were generally positive about the KiwiSaver implementation process, finding it straightforward and effectively managed. The Inland Revenue's employer-specific communications were seen as central to the successful implementation of KiwiSaver with 81% of employers surveyed noting that communication material was straightforward and easy to understand. A key determinant of employer's attitude to KiwiSaver was the perceived affordability of contributions[636]. The costs of complying with KiwiSaver legislation were not a significant burden for employers. Larger firms incurred the highest cost as their payroll systems are more complex and they had more staff to educate about the KiwiSaver. For smaller firms, implementation was a lot simpler. Overall, employers noted that there was a minimal impact on workloads and neither large nor small firms appeared to feel that implementation was onerous or that it resulted in significant costs[637].

According to Collard and Moore (2010) the ability of Inland Revenue to collect employee and employer contributions through the existing PAYE system was a key factor in the implementation of KiwiSaver, especially due to the short implementation period.[638]

Finally, the 2015 evaluation of KiwiSaver noted that the impact of the flow of funds associated with KiwiSaver was having only a limited impact on capital markets in New Zealand, with much of the capital being invested abroad.[639]

Quantitative evidence

At the end of 2005, around 600,000 individuals were enrolled in some type of superannuation plan with a total of NZ$18.2 billion in assets. Half of these individuals (about 13 percent of the labour force) were enrolled in employer-sponsored retirement superannuation plans. Employer based plans held about NZ$11.5 billion in assets at the end of 2005. Prior to KiwiSaver, the majority of individuals on incomes below NZD$50,000 were not saving for retirement. Indeed, according to the 2001 Household Savings Survey, less than 20 percent of those who earned between NZ$15,000 and NZ$50,000 per annum were enrolled in some type of superannuation plan[640].

KiwiSaver was highly successful at enrolling individuals into a retirement savings plan. According to Inland Revenue, KiwiSaver was forecast to have 346,000 members at the end of its first year (i.e., end 2008). In fact, it had more than twice that number, with a total of 716,637 members. By June 2009, there were 1,100,540 KiwiSaver members, an increase of 54 percent.[641]

As of June 2020, 3,054,734 individuals are enrolled in KiwiSaver with a total of NZD$77.2 billion in assets. Moreover, apart from 2018, the number of members earning between NZD$20,000 and NDZ$60,000 has increased every year.

The majority (approximately 60%[642]) of beneficiaries enrol by opting-in via a provider. Those who opt in are likely to be mostly those who have not changed jobs, and therefore have not been in the

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[636] Img.scoop.co.nz. 2008. *Six-monthly Report 1 1 July 2007 – 31 December 2007*. [online] Available at: <https://img.scoop.co.nz/media/pdfs/0803/KS_sixmonthly_evaluation_report_Feb_2008__FINAL_PDF.pdf> [Accessed 10 May 2021].

[637] Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

[638] Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

[639] Inland Revenue Department (New Zealand) (2015), 'KiwiSaver evaluation: Final summary report'. Available at https://www.ird.govt.nz/about-us/publications/research-evaluation/kiwisaver.

[640] New Zealand Ministry of Economic Development, Insurance and Superannuation Unit. 2006. Report of the government actuary for the year ended 30 June. Available at: https://www.parliament.nz/resource/en-NZ/48DBHOH_PAP14297_1/9ed75778f6a7cfb34c65dfcdb86fe43a138f46d6

[641] Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

[642] Inland Revenue Department (New Zealand) (2015), 'KiwiSaver evaluation: Final summary report'. Available at https://www.ird.govt.nz/about-us/publications/research-evaluation/kiwisaver.

scope for auto-enrolment into KiwiSaver, and those who opted out and subsequently changed their mind.[643] Amongst KiwiSaver members surveyed in 2010, the two most common reasons for joining KiwiSaver were that it was an easy way to save, and the employer and government contributions that KiwiSaver involves; it is likely that these two features are important reasons for active opt ins.[644] Members of KiwiSaver who were auto-enrolled tend to be younger, less educated and more lilkely to be a low earner than those who actively chose to opt in.[645]

In 2020, the number of individuals opted in via a provider was the largest to date; this rise in the number of people opting in during 2020 may be due, in part, to a change in legislation whereby individuals over 65 are now able to opt in to KiwiSaver. The number of individuals aged 65+ in KiwiSaver increased by 17.2% between 2019 and 2020.

Cumulative opt-out rates amongst those automatically enrolled into KiwiSaver have declined since 2008 and stood at only 16% in June 2018.[646] The opt-out rate was 34% in first two years of KiwiSaver's operation.[647] The largest driver of opt-outs in this period was the 4% minimum employee contribution rate, which was subsequently reduced to 2%[648] before being increased to 3%.

Active members of KiwiSaver can apply for a savings suspension. An ordinary suspension can only be granted after 12 months of membership but a suspension for financial hardship can be granted earlier. The default saving suspension is five years. Between June 2019 and June 2020, there has been a 19.3% decrease in the number of individuals suspending contributions for over 36 months. Additionally, suspensions of durations of between 13-24 months and 25-36 months have fallen by 25.8 and 15% respectively. In contrast, individuals suspending contributions for up to 12 months increased by 153% between 2019 and 2020. This increase in short-term savings suspension may be as a result of COVID-19. Indeed, between 2019 and 2020, there was a 163% increase in the number of individuals citing 'financial hardship' as their reason for suspensions. While there has been an overall 0.7% increase in savings suspensions between 2019 and 2020, the duration and nature of suspensions suggest that individuals plan to continue to save in KiwiSaver once they are again in the position to do so financially.

The total value of contributions to KiwiSaver has grown year-on-year since 2011. In 2020, total contributions stood at NZD$ 7.276 billion, an increase from NZD$6.681 billion in 2019. Lump sum contributions increased by 16 percent between 2019 and 2018 to $732.5 million. Standard contributions increased by 7 percent between 2019 and 2018 to $3.6 billion. According to Inland Revenue, the average member's balance is increasing. In fact, 2019 saw a 13.4% increase in the average member's balance to NZD$19,426[649].

The introduction of KiwiSaver is encouraging New Zealanders to think about their retirement. For example, KiwiSaver default providers have increased their efforts to contact members and encourage them to make active decisions about their savings. In 2019, 13.4% of default members made an active choice about their investment strategy. A total of 85,304 KiwiSaver members switched or transferred out of default schemes in 2019, an increase of 17.7% from 2018. This number includes those who made an active decision to stay in such a fund. Investment returns increased by 19% in 2019 to 3.8 billion, perhaps reflective of the number of individuals opting for a more aggressive investment approach.[650]

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[643] Ibid.

[644] Ibid.

[645] Ibid.

[646] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at https://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[647] Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

[648] Ibid.

[649] Fma.govt.nz. 2019. *KiwiSaver Annual Report 2019*. [online] Available at: <https://www.fma.govt.nz/assets/Reports/20191004-FMA-KiwiSaver-Annual-Report-2019.pdf> [Accessed 11 May 2021]

[650] Fma.govt.nz. 2019. *KiwiSaver Annual Report 2019*. [online] Available at: <https://www.fma.govt.nz/assets/Reports/20191004-FMA-KiwiSaver-Annual-Report-2019.pdf> [Accessed 11 May 2021].

While KiwiSaver has been successful in achieving high levels of coverage, there is evidence that a substantial portion of savings in KiwiSaver do not represent additional saving (that is, saving of funds that would otherwise have been spent on contemporaneous consumption).[651] Survey evidence suggests that only around a third of KiwiSaver member contributions represent additional saving.[652] However, the additionality of savings was greater for lower earners and younger workers,[653] who may be considered particularly important targets for increasing saving through auto-enrolment.

Finally, the 2015 evaluation of KiwiSaver found that in 2012/13, each 1 NZD of government cost (including government contributions and administrative costs) was associated with 0.38 NZD of additional member contributions.[654]

5.3.5. Description of factors that influenced the performance of the auto-enrolment scheme

The reason for the introduction of KiwiSaver was to address concerns regarding inadequate saving for retirement. In 2006, only 14.7% of the workforce had an occupational pension and only about 5% of the working age population contributed to a personal pension.[655] According to a study carried out by the New Zealand Treasury, about 20% of the population aged 45-64 needed to save more for retirement.[656] Middle-income New Zealanders were particularly at risk of a substantial drop in their living standards at retirement unless they saved more.[657] Additionally, high levels of consumer debt, student loans and the increasing age at which people were having children gave rise to concerns that younger workers may have lower standards of living in retirement than current retirees and those approaching retirement[658]. Additionally, there was a lack of suitable retirement savings products in the market[659].

According to Diana Crossan, New Zealand’s former retirement commissioner, prior to KiwiSaver, the Government wanted to encourage savings and had started a new workplace savings scheme for public servants. Additionally, Crossan mentioned that the New Zealand government was running a surplus which meant there was room for innovative new ideas. The KiwiSaver was aimed at individuals on middle incomes as those on low incomes would receive the same, if not more, income from the State pension[660].

In general, the public perception of KiwiSaver was positive. In a 2010 survey of KiwiSaver members, the most commonly reported reasons for joining KiwiSaver were the government payments (67% of respondents), the employer contributions (56%), the mechanisms facilitating the purchase of a home (24%), and the contribution holidays (12%). Moreover, KiwiSaver was viewed as an easy way to save by 77% of participants due to automatic enrolment, the provision of a default provider and default contribution rate[661].

Evidence suggests that the introduction of KiwiSaver was well supported by both employers and providers despite its short implementation time frame. The positive view of KiwiSaver, in part, may

[651] Inland Revenue Department (New Zealand) (2015), ‘KiwiSaver evaluation: Final summary report’. Available at https://www.ird.govt.nz/about-us/publications/research-evaluation/kiwisaver.

[652] Ibid.

[653] Ibid.

[654] Ibid.

[655] OECD (2009), New Zealand country profile, *Pensions at a Glance 2009*. Available at https://www.oecd.org/pensions/public-pensions/43021579.pdf.

[656] E. Kritzer, B., 2007. *KiwiSaver: New Zealand's New Subsidized Retirement Savings Plans*. [online] Social Security Administration Research, Statistics, and Policy Analysis. Available at: <https://www.ssa.gov/policy/docs/ssb/v67n4/67n4p113.html> [Accessed 10 May 2021].

[657] Toder, E, and Khitatrakun., S. (2006). ‘Final report to inland revenue: KiwiSaver evaluation literature review’.

[658] Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

[659] Harris, R., 2014. *Why New Zealand's Retirement System Works So Well*. [online] Forbes. Available at: <https://www.forbes.com/sites/nextavenue/2014/07/17/why-new-zealands-retirement-system-works-so-well/?sh=4bf12faf6312> [Accessed 11 May 2021].

[660] Assets.aarp.org. 2009. *THE AUTO IRA: STRATEGIES FOR SUCCESSFUL IMPLEMENTATION*. [online] Available at: <https://assets.aarp.org/rgcenter/ppi/econ-sec/transcript_forum_090926.pdf> [Accessed 11 May 2021].

[661] 2018. *OECD Pensions Outlook 2018*. Paris: Organization for Economic Cooperation & Development.

be due to the communications campaign undertaken by Inland Revenue. The campaign included TV, radio, online and print advertising; the development of a KiwiSaver website; guides and information packs for employers and employees and briefings, seminars, and tradeshow presentations. Results from a study undertaken by Inland Revenue showed that the general level of awareness of KiwiSaver amongst employers and individuals was high. All of the employers surveyed for the report were aware of KiwiSaver and 96% of the individuals had heard about it. Awareness amongst individuals was slightly lower, although still high, among Pacific peoples[662] (89%), those not employed (92%) and people earning under NZD$50,000 per annum in 2007 (94%)[663].

5.3.6. Looking forward

Several changes to the KiwiSaver Act 2006 were introduced in 2020. A new withdrawal category for those with life-shortening congenital conditions was added. This change allows individuals suffering from such conditions to withdraw funds before they reach 65, enabling them to spend some of their adult life in retirement. Those who withdraw funds because of a life-shortening congenital condition can continue to work but government contributions and compulsory employer contributions will stop.

Changes to the act also expand the Commissioner of Inland Revenue’s remit to notify KiwiSaver providers when savers are paying the incorrect rate of tax on capital gains achieved in their KiwiSaver account. This change is due to the overpayment of taxes. In fact, in tax year 2018/19, 950,000 people were on the wrong rate of tax on their investments, resulting in an overpayment of NZD$42 million.

From 2020, Inland Revenue can pay employer contributions to a savers’ KiwiSaver plan prior to receiving payment from the employer. Contributions will be based on employment income information held by Inland Revenue which employers will be required to provide for new employees. From April 2022, KiwiSaver members will be able to change their contribution rate through Inland Revenue, their provider, or their employer. Under the current system, individuals can change their contribution rate once every 3 months but must submit a written request to their employer to do so[664].

Withdrawal from KiwiSaver accounts have been increasing, in fact, in 2020, the number of individuals withdrawing for financial hardship increased by 21.9% to 20,381. In 2018, a proposal to reduce withdrawals through the introduction of sidecar accounts, was made by David Boyle, the General Manager of Investor Education for the Commission for Financial Capability at the time. Sidecar accounts could allow members to have their KiwiSaver contributions deposited into an easy access account. Once this reaches $1,000, contributions would then flow into their long-term savings accounts[665]. A Nest Insight paper[666] explains that individuals manage their finances in ‘jars’ with particular goals for each jar. If individuals cannot move savings between jars because, for example, their savings are locked away for a long period of time, sub-optimal outcomes emerge. During an unexpected peak in consumption or loss of income, instead of accessing savings, people may be forced to obtain financing through expensive mechanisms such as credit cards, ‘payday’ loans, or reductions in ‘essential’ spending. A sidecar account aims to allow individuals to meet

[662] Samoan, Cook Islands Māori, Tongan, Niuean, Fijian, Tokelauan, Tuvaluan and Kiribati comprise the eight main Pacific ethnic groups in New Zealand. For the purposes of comparing high level ethnic groups in New Zealand they are referred to collectively as 'Pacific peoples'. See : https://www.pasefikaproud.co.nz/assets/Resources-for-download/PasefikaProudResource-Pacific-peoples-paper.pdf

[663] Img.scoop.co.nz. 2008. *Six-monthly Report 1 1 July 2007 – 31 December 2007*. [online] Available at: <https://img.scoop.co.nz/media/pdfs/0803/KS_sixmonthly_evaluation_report_Feb_2008__FINAL_PDF.pdf> [Accessed 10 May 2021].

[664] Barnes, T., Taylor, R., McBeth, A., Cross, T., Johnston, D. and MacFarlane, N., 2020. *Government amends KiwiSaver to increase flexibility | Insights | DLA Piper Global Law Firm*. [online] DLA Piper. Available at: <https://www.dlapiper.com/en/newzealand/insights/publications/2020/01/government-amends-kiwisaver-to-increase-flexibility/> [Accessed 11 May 2021].

[665] Hinz, R., Holzmann, R., Tuesta, D., and Takayama, N. ed. (2013), Matching Contributions for Pensions: A Review of International Experience.

[666] Hodgkinson, C., Sandbrook, W., Phillips, J. and Blakstad, M., 2020. *Supporting emergency saving*. [online] Nestinsight.org.uk. Available at: <https://www.Nestinsight.org.uk/wp-content/uploads/2020/10/Supporting-emergency-saving-policy-considerations-and-questions-for-future-research.pdf> [Accessed 11 May 2021].

their needs and prevent any gains in investment income being eroded by expensive debt financing to fund day-to-day expenditures[667].

New Zealand's Treasury and the Ministry of Business, Innovation and Employment (MBIE) are currently seeking feedback on how KiwiSaver default funds could be used to develop New Zealand's capital markets. Currently, over half of the assets in KiwiSaver default funds are invested in New Zealand, primarily in listed assets. While KiwiSaver funds have minimal exposure to unlisted assets such as infrastructure or private equity in New Zealand, these assets could provide enhanced growth opportunities. The discussion paper suggests that requiring parts of the providers' management to be based in New Zealand and introducing a requirement that a small percentage of default funds be directed to a particular area of investment such as early-stage businesses could develop these areas of the capital markets. While many OECD countries require a minimum percentage of retirement assets to be invested in the local economy, MBIE and Treasury note that such a requirement would not address a problem in New Zealand's capital markets because default funds are already heavily invested in New Zealand. Additionally, they argue this could lead to over-exposure to the New Zealand economy and/or materially impact on a fund manager's ability to invest in a prudent financial basis[668].

Currently, fees on KiwiSaver accounts are not capped; rather, fees are required to be 'not unreasonable', which is monitored by the Government Actuary. Plan fees come in the form of a fixed membership fee and management fees which vary by provider and investment strategy. In 2020, annual membership fees ranged from $0 to $60 per annum with an average of $32[669]. A report commissioned by the Financial Markets Authority (FMA) found that, despite the decline in investment management fees globally, KiwiSaver fees have increased. Moreover, this increase in fees occurred despite a reduction in management costs due to economies of scale. For example, in 2019, KiwiSaver providers earned $479.8 million in fees, an increase of 15 percent since 2018. According to the FMA's report, a DIY investor could build a balanced portfolio of shares and fixed interest investments and pay less in fees than what KiwiSaver schemes charge. Liam Mason, FMA director of regulation noted that there exists no significant relationship between the level of active management employed by providers and the fees charged[670]. In response to increasing fees, the FMA issued guidance to KiwiSaver schemes on how it expects providers to demonstrate that they are not charging unreasonable fees which are prohibited under law. Additionally, providers have been told they must review their fees every year, and demonstrate they are providing savers with 'value for money'. The FMA also outlined several scenarios in which KiwiSaver providers should review fees or face regulatory questions. Such examples include[671]:

- An increase in assets under management (fees should fall due to economies of scale);
- Changing from an active to passive investment approach;
- If fund input costs have fallen due to a reduction in third-party fund management fees;
- Scheme consolidation resulting in economies of scale.

Failure to conduct an annual review could result in the FMA issuing a 'stop order', prohibiting the scheme from advertising or a 'direction order' instructing a manager to do something specific, such as to stop charging an unreasonable fee or court action[672].

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[667] Hodgkinson, C., Sandbrook, W., Phillips, J. and Blakstad, M., 2020. *Supporting emergency saving*. [online] Nestinsight.org.uk. Available at: <https://www.Nestinsight.org.uk/wp-content/uploads/2020/10/Supporting-emergency-saving-policy-considerations-and-questions-for-future-research.pdf> [Accessed 11 May 2021].

[668] Mbie.govt.nz. 2019. *Review of the KiwiSaver Default Provider Arrangements*. [online] Available at: <https://www.mbie.govt.nz/dmsdocument/6567-review-of-kiwisaver-default-provider-arrangements-discussion-paper> [Accessed 11 May 2021].

[669] KiwiSaver Fund finder by Sorted. 2021. *Must-knows of KiwiSaver*. [online] Available at: <https://fundfinder.sorted.org.nz/must-knows-of-kiwisaver/#fees> [Accessed 10 May 2021].

[670] Investmentnews.co.nz. 2020. *Consultation paper: Proposed guidance on KiwiSaver fees and value for money*. [online] Available at: <https://investmentnews.co.nz/wp-content/uploads/fmafees.pdf> [Accessed 10 May 2021].

[671] Investmentnews.co.nz. 2020. *FMA goes hard on KiwiSaver fees in draft guidelines | Investment News NZ*. [online] Available at: <https://investmentnews.co.nz/investment-news/fma-goes-hard-on-kiwisaver-fees-in-draft-guidelines/> [Accessed 11 May 2021].

[672] Stock, R., 2021. *KiwiSaver schemes to review fees every year and prove savers get value for money*. [online] Stuff. Available at: <https://www.stuff.co.nz/business/124821261/kiwisaver-schemes-to-review-fees-every-year-and-prove-savers-get-value-for-money> [Accessed 10 May 2021].

Currently, default funds in New Zealand have a conservative investment approach. Conservative strategies are less volatile than riskier strategies but do not provide a high level of asset growth. Recognising the risk that individuals may remain in the default fund despite it being a sub-optimal choice providing an insufficient level of retirement assets, default funds in New Zealand will be changed to a balanced investment strategy from December 1st 2021[673].

5.3.7. Lessons learned

The KiwiSaver scheme can offer many lessons for countries considering the adoption of an auto-enrolment pension mechanism. Below are some key aspects of the scheme including the effectiveness of initial incentives, the importance of default contribution rates and default funds, communication strategies and the importance of portability.

- **Incentives** - In its first year, KiwiSaver attracted twice the number of members than was originally estimated. The high take up of KiwiSaver may, in part, be as a result of government incentives**.** In order to encourage employees to participate in KiwiSaver, there was a matching contribution tax credit of up to NZD$1,040 per year per account holder, and a one-off tax-free government contribution of NZD$1,000. Employees also received an annual fee subsidy of NZD$40 to cover KiwiSaver administrative costs[674]. The second most common reason for joining KiwiSaver given by respondents to a 2010 survey was the state and employer contributions to the scheme.[675] Despite the eventual withdrawal or reduction of these benefits, New Zealand has shown that large Government incentives can be used to entice individuals to opt-in and then subsequently be removed without having a large impact on membership[676].

- **Default contribution rates** – Rashbrooke in Hinz et al, eds., notes the importance of default contribution rates. Indeed, the author cites that many members continued to make contributions at the 4% default rate even after that rate was reduced from 4% to 2 percent. This confirms the stickiness of default parameters and reinforces the importance of the default rates in establishing participation patterns. Additionally, the author mentions evidence of members anchoring their contributions to the point at which the maximum level of tax credits is obtained[677]. It is also important that governments balance the desire for capital accumulation with affordability. In 2008, the first year of KiwiSaver, the most commonly cited reason for individuals opting out was the 4% minimum contribution rate[678].

- **Default funds** - Similar to default contribution rates, KiwiSaver also highlights the importance of default funds to savers' outcomes. Indeed, according to an FMA report, of the 52,289 default members who made an active choice in 2019, 20,268 chose to stay in their default fund. Among the reasons given were that the default option is perceived to be the 'best' or 'correct' option and meant that members didn't have to go through a risk profile assessment. Additionally, the conservative option was 'understood and comfortable', with accompanying lower fees, so it was 'easy to stay there'[679]. According to MacDonald and Guest (2019), default funds are often viewed as having a Government endorsement.

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[673] Financial Markets Authority 2021. *New KiwiSaver default providers* [online]. Available at: https://www.fma.govt.nz/investors/kiwisaverandsuperannuation/kiwisaver-default-provider-changes-2021/ [Accessed 10 June 2021].

[674] Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

[675] Inland Revenue Department (New Zealand) (2015), 'KiwiSaver evaluation: Final summary report'. Available at https://www.ird.govt.nz/about-us/publications/research-evaluation/kiwisaver.

[676] Dale, M., St John, S. and Littlewood, M., 2014. *Now we are six Lessons from New Zealand's KiwiSaver*. [online] Docs.business.auckland.ac.nz. Available at: <http://docs.business.auckland.ac.nz/Doc/WP-2014-1-KiwiSaver.-Now-we-are-six.pdf> [Accessed 11 May 2021].

[677] Hinz, R., Holzmann, R., Tuesta, D., and Takayama, N. ed. (2013), Matching Contributions for Pensions: A Review of International Experience.

[678] Collard, S. and Moore, N., 2010. *Review of international pension reform*. [online] Assets.publishing.service.gov.uk. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214434/rrep663.pdf> [Accessed 10 May 2021].

[679] Fma.govt.nz. 2019. *KiwiSaver Annual Report 2019*. [online] Available at: <https://www.fma.govt.nz/assets/Reports/20191004-FMA-KiwiSaver-Annual-Report-2019.pdf> [Accessed 10 May 2021].

Moreover, losses would not only impact members' saving behaviour but also investors' attitudes towards the government[680].

- **Communication** - According to the OECD, the level of communication regarding investment strategies may help members to differentiate between strategies enabling them to choose their preferred strategy.[681] In New Zealand, Sorted, an independent body, provides information on KiwiSaver providers. The website clearly displays performance figures, fees and offers tools such as the ability to rank various investment strategies. Individuals can also use the platform to answer questions to determine their recommended strategy based upon what type of investor they are[682]. Additionally, consumers can avail themselves of the financial education which KiwiSaver default providers are obliged to provide to account holders[683].

- **Portability** - A central part of KiwiSaver is that the Inland Revenue acts as a clearinghouse making KiwiSaver fully portable. Inland Revenue manages the collection and payment of contributions ensuring the consolidation of pension contributions. When members change jobs or leave employment their plans follow them eliminating the issues of beneficiaries holding several small accounts[684]. The fragmentation of pension savings introduces several risks for beneficiaries such as the erosion of small pot values due to charges, losing track of pension savings and increased complexities of planning for retirement. Additionally, small pots are uneconomical for providers to manage as they result in a duplication of administrative tasks and resources. The approach taken by New Zealand could act as a guide for other countries introducing automatic enrolment.

- **Decumulation flexibility** - Currently, there is no coordinated decumulation approach for KiwiSaver. Decumulation can be an active or passive decision depending on the scheme. Individuals can have an active approach to decumulation by taking their money out in a lump sum. Alternatively, individuals can adopt a passive approach in which they keep their existing KiwiSaver and draw upon it when needed. This lack of coordination is exacerbated by the absence of an annuity market in New Zealand. This absence creates risks for retirees such as longevity risks whereby an individual outlives their capital; poor investment decisions and inflation risks[685].

- **Taxation regime** - New Zealand is an example of how an administratively cost-effective retirement savings system can be implemented through the existing tax system[686]. The tax system under which KiwiSaver operates has been in place since 1990 when all tax concessions for private retirement savings were abolished. Contributions to pensions were deducted from after tax income, fund earnings were taxed at the individual's marginal rate; but withdrawals are a return of monies on which tax has already been paid and hence tax-exempt. This taxed-taxed-exempt system means saving for retirement is not subsidised by Government in the form of tax breaks, reducing the long-term running costs of KiwiSaver[687]. Non-tax financial incentives were introduced in lieu of tax incentives which reflects the objective of KiwiSaver to target middle income earners.

[680] MacDonald, K. and Guest, R., 2019. *KiwiSaver: A jewel in the crown of New Zealand's retirement income framework?*. [online] Available at: <https://library.oapen.org/bitstream/handle/20.500.12657/25104/succesful.pdf?sequence=1#page=497> [Accessed 11 May 2021].

[681] 2020. *OECD Pensions Outlook 2020*. Paris: Organization for Economic Cooperation & Development.

[682] 2020. *OECD Pensions Outlook 2020*. Paris: Organization for Economic Cooperation & Development.

[683] Oecd-ilibrary.org. 2015. *Recent pension reforms*. [online] Available at: <https://www.oecd-ilibrary.org/docserver/pension_glance-2015-4-en.pdf?expires=1620718757&id=id&accname=guest&checksum=B6C8603E67EE74794DA84A87DEF1957E> [Accessed 11 May 2021].

[684] Oecd-ilibrary.org. 2021. *5. Policy options for funded retirement savings arrangements to tackle the gender gap | Towards Improved Retirement Savings Outcomes for Women | OECD iLibrary*. [online] Available at: <https://www.oecd-ilibrary.org/sites/f6bfa00b-en/index.html?itemId=/content/component/f6bfa00b-en> [Accessed 10 May 2021].

[685] St John, S., 2014. What has New Zealand's retirement policy framework to offer the international debate?. *Policy Quarterly*, 10(3).

[686] MacDonald, K. and Guest, R., 2019. *KiwiSaver: A jewel in the crown of New Zealand's retirement income framework?*. [online] Available at: <https://library.oapen.org/bitstream/handle/20.500.12657/25104/succesful.pdf?sequence=1#page=497> [Accessed 11 May 2021].

[687] St John, S., 2014. What has New Zealand's retirement policy framework to offer the international debate?. *Policy Quarterly*, 10(3).

These 'lessons learned' reflect LE Europe's judgement based on the findings from the literature that are described above.

5.4. Poland

Poland has, so far, had a less positive experience of auto-enrolment. It has seen uptake of auto-enrolment pensions fall below expectations since their introduction.[688] A distinguishing feature of the case of Poland is that it has less developed capital markets (as measured by, for instance, the IMF's Financial Markets Index in 2018) than many of the other countries that have introduced auto-enrolment and, indeed, much of Europe. Poland's attempt to improve occupational pension provision through auto-enrolment contrasts with the decision of several other countries in the CEE region (including, formerly, Poland itself) to supplement the public pension with a statutory funded scheme. Poland's experience of introducing auto-enrolment highlights the importance of trust and time to prepare when introducing an auto-enrolment scheme. Poland's experience highlights the importance of contextual factors as well as the design of an auto-enrolment scheme for its success. It should be noted, though, that the introduction of Poland's auto-enrolment mechanism began only in 2019. The situation may evolve as the scheme matures.

Between 2019 and 2021, Poland introduced Employee Capital Plans (PPKs), an occupational pension scheme with auto-enrolment for employees in all sectors aged between 18 and 55. Employees aged 56 to 70 can opt in on a voluntary basis. Employees aged over 70 and the self-employed cannot participate.

At the time of writing, the scheme's phased introduction finished only very recently, on 10th May 2021. However, so far Poland's experience in introducing an auto-enrolment scheme has been less positive than those of some other countries, such as the United Kingdom or New Zealand. Participation rates so far have been much lower than what was expected by the government prior to the roll-out of PPKs.

5.4.1. Description of the pension system prior to the introduction of the auto-enrolment scheme

The public pillar of Poland's pension system features a notional defined contribution (NDC), pay-as-you-go (PAYG) system managed by the Social Security Institution.[689] The contribution rate is 19.52% of gross salary.[690] The retirement age is currently 60 for women and 65 for men.[691] In 2016, the retirement age was reduced from 61 for women and 66 for men, and the planned increase to 67 for both men and women was cancelled.[692] For an average earner, gross replacement rates from the PAYG system are below 30%.[693]

In 1999, a contribution-neutral compulsory scheme was introduced whereby 2.92% of the gross salary of people born after 1968[694] was redirected from the PAYG system to privately-administered open pension funds (OFEs).[695] Between 2011 and 2014, the government responded to fiscal pressures by transferring around two-thirds of OFE contributions and just over half of their assets

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688 Instytut Emerytalny and Wojewódka i Wspólnicy (2019), 'Levels of participation in Employee Capital Plans'. Available at http://www.instytutemerytalny.pl/wp-content/uploads/2017/08/Level-of-participation-in-PPK-_November-2019.pdf.

689 Šebo, J. and Voicu, S.D. (2019), 'Pension Savings: The Real Return - 2019 Edition', *Better Finance*. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Polish-Country-Case.pdf.

690 European Commission and the Social Protection Committee (2018), 'Pension Adequacy Report 2018', Vol.2.

691 Ibid.

692 Ibid.

693 OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at https://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

694 OECD (2008), *Country profile: Poland*, 'OECD Private Pensions Outlook 2008'. Available at https://www.oecd.org/finance/private-pensions/42575000.pdf.

695 OECD (2019), 'How does Poland compare?', *Pensions at a Glance 2019*. Available at https://www.oecd.org/poland/PAG2019-POL.pdf.; European Commission and the Social Protection Committee (2018), 'Pension Adequacy Report 2018', Vol.2.

(held in Polish government bonds) to the PAYG system.[696, 697] In 2014, OFEs were made voluntary.[698]

Employee pension programmes (PPEs) are a voluntary form of occupational pension saving introduced in 1999.[699] In nearly all cases, PPEs use group unit-linked life insurance or investment funds as their financing vehicle.[700] Coverage of PPEs is low, at around 1.8% of the working-age population.[701]

Individual retirement funds (IKEs) are defined contribution, voluntary personal plans that were introduced in response to the low take-up of PPEs.[702] They began operation in September 2004 and are open to anyone aged at least 16.[703] At the end of 2018, 5.8% of people in employment in Poland held an IKE.[704]

Both PPEs and IKEs are subject to a 'TEE' (Taxed-Exempt-Exempt) tax regime in which contributions are taxed but investment returns and benefits are exempt from taxation.[705] Individual retirement savings accounts (IKZEs) are similar to IKEs but are subject to different contribution ceilings and are subject to an 'EET' (Exempt-Exempt-Taxed) tax regime whereby contributions and investment returns are exempt from tax while benefits are taxed but at a reduced rate.[706] Coverage of IKZEs was around 4.3% in 2018.[707]

Prior to the introduction of auto-enrolment, capital markets in Poland were less well-developed than in many other European countries.[708] One of the stated benefits of the introduction of auto-enrolment was the encouragement of the development of Poland's capital markets.[709]

5.4.2. Timeline of the introduction of the auto-enrolment scheme

The PPK Act, which mandates the introduction of the auto-enrolment scheme, was signed into law in November 2018.[710] The introduction of this legislation was preceded by consultations with employers' organisations and trade unions through the Social Dialogue Council, an institution through which government, employer organisations and trade unions cooperate.[711]

The roll-out of PPKs took place in four stages, as follows:

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[696] Ibid.

[697] Ibid. and Cohen, N. and Cienski, J. (2014), 'Poland pension reform reversal highlights public disillusion', *Financial Times*. Published 5th February 2014.

[698] Ibid.

[699] OECD (2008), *Country profile: Poland*, 'OECD Private Pensions Outlook 2008'. Available at https://www.oecd.org/finance/private-pensions/42575000.pdf.

[700] Šebo, J. and Voicu, S.D. (2019), 'Pension Savings: The Real Return - 2019 Edition', *Better Finance*. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Polish-Country-Case.pdf.

[701] OECD (2019), 'Pensions at a Glance 2019: OECD and G20 Indicators'. Available at https://www.oecd-ilibrary.org/social-issues-migration-health/pensions-at-a-glance-2019_b6d3dcfc-en.

[702] OECD (2008), *Country profile: Poland*, 'OECD Private Pensions Outlook 2008'. Available at https://www.oecd.org/finance/private-pensions/42575000.pdf.

[703] Ibid.

[704] Social Security Institution (ZUS) (2019), 'Social Security in Poland'. Available at https://www.zus.pl/documents/10182/167615/Social+Security+in+Poland/71ffe1b1-c142-48fa-a67b-0c7e1cec6eb6.

[705] Šebo, J. and Voicu, S.D. (2019), 'Pension Savings: The Real Return - 2019 Edition', *Better Finance*. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Polish-Country-Case.pdf.

[706] Ibid.

[707] Ibid.

[708] See, for instance, the country rankings on financial markets depth, access and efficiency in Svirydzenka, K. (2016), 'Introducing a New Broad-based Index of Financial Development', *IMF Working Paper WP/16/5*. Available at https://www.imf.org/external/pubs/ft/wp/2016/wp1605.pdf.

[709] See, for instance, Polish Development Fund Group, 'Employee Capital Plans (PPK)'. Available at https://pfr.pl/en/employee-capital-plans.html.

[710] Chłoń-Domińczak, A. (2019), 'New occupational pension savings scheme in Poland', *European Social Policy Network (ESPN) Flash Report 2019/01*. Available at https://ec.europa.eu/social/BlobServlet?docId=20611&langId=en.

[711] Polish Development Fund Group, 'Employee Capital Plans (PPK)'. Available at https://pfr.pl/en/employee-capital-plans.html.

- The roll-out for companies employing at least 250 people began on 1st July 2019; the deadline was 12th November 2019;[712]
- The roll-out for companies employing 50-249 people began on 1st January 2020; the deadline was 10th November 2020.[713] This represented a postponement relative to the deadline that was originally legislated for. This postponement was motivated by the disruption caused by the COVID-19 pandemic[714];
- The roll-out for companies employing 20-49 people began on 1st July 2020; the deadline was 10th November 2020;[715]
- The roll-out for the remaining private sector employers and the public sector began on 1st January 2021; the deadline was 10th May 2021, except for public finance sector employers, for whom the deadline was 10th April 2021.[716]

5.4.3. Description of the characteristics of the auto-enrolment scheme

From the relevant deadline onwards, it is mandatory for employers to provide access to a PPK by concluding agreements for the management and operation of a PPK with a financial institution, with some exceptions.[717] Employers, therefore, choose a provider. Micro-employers with fewer than 10 employees can be exempted if all of their employees opt out.[718] Employers are exempt if they operate an Employee Pension Plan (PPE) with employer contributions of at least 3.5% of the employee's remuneration and of which 25% of their employees are members.[719]

Auto-enrolment applies to all employees aged between 18 and 55. Employees aged between 56 and 70 can opt in on a voluntary basis, while employees aged over 70 cannot participate.[720] The self-employed are unable to participate.[721]

A PPK receives contributions from the employee, the employer and the state. The default, and minimum, employee contribution rate is 2% of gross remuneration (although employees earning less than 1.2 times the minimum wage may contribute only 0.5%).[722] Voluntary additional contributions by the employee of up to 2% of gross remuneration are permitted.[723] The default employer contribution rate is 1.5% of the employee's gross remuneration. Voluntary additional employer contributions of up to 2.5% of gross remuneration are permitted.[724] The maximum rate of contributions from the employee and employer together is therefore 8% of gross remuneration, while the combined minimum contribution rate is 3.5%.[725] The government pays a one-off PLN 250 (approximately €55) 'welcome' or 'kick-start' contribution and an annual PLN 240 contribution.[726] Since the government contributions are a fixed amount for each employee, they are larger in relative terms for employees on lower incomes.

Employees who have been auto-enrolled in a PPK may opt out at any time - there is no 'opt out' window like in several other auto-enrolment schemes.[727] Once an employee is auto-enrolled,

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[712] See https://www.mojeppk.pl/dla-pracownika.html.

[713] Ibid.

[714] See https://www.wiatr.wroc.pl/en/2020/10/20/the-deadline-is-approaching-for-the-implementation-of-the-employee-capital-plans-ppk-in-small-and-medium-sized-companies/.

[715] See https://www.mojeppk.pl/dla-pracownika.html.

[716] Ibid.

[717] MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[718] Ibid.

[719] Ibid.

[720] Ibid.

[721] Ibid.

[722] Ibid.

[723] Ibid.

[724] Ibid.

[725] Ibid.

[726] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at https://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[727] Ibid.

contributions begin immediately.[728] There is automatic re-enrolment every four years of those who have opted out.[729]

The Polish Development Fund (PFR) is a state-owned entity that serves as a default provider in the event that an employer fails to choose a provider.[730] It has a particular mandate to develop domestic capital markets in Poland,[731] in line with one of the aims of the PPK scheme more generally. At present, there are 19 managing entities operating in the scheme.[732] Providers may be general pension societies, investment fund companies, employee pension societies, or insurance companies.[733] To be licensed, providers are required: to have at least three years of operating history in investment fund management or insurance and investment, to have assets of at least PLN 25 million of which at least PLN 10 million must be in liquid assets, and to operate a minimum number of target date funds (target date funds follow a life cycle investment strategy whereby the asset allocation is moved to less risky assets as a target date, typically the saver's planned retirement age, approaches).[734]

Funds in the PPK scheme are invested according to a life-cycle strategy (see section 4.4.2 for further details).[735] Providers are required to offer an appropriate number of life-cycle funds, reflecting the fact that a life-cycle investment strategy requires different investments for people in different age bands. A number of investment rules are set out in the PPK Act:[736]

- Up to 20 years before the age of 60, equities must account for 60-80% of assets while debt must account for 20-40% of assets;
- Between 20 and 10 years before the age of 60, equities must account for 40-70% of assets and debt must account for 30-60%;
- Between 10 and five years before the age of 60, equities must account for 25-50% of assets and debt must account for 50-75%;
- From five years before the age of 60 until the age of 60, equities must account for 10-30% of assets and debt must account for 70-90%;
- From the age of 60, shares cannot account for more than 15% of assets and debt must account for at least 85% of assets; and
- Foreign-currency-denominated assets cannot exceed 30% of total assets by value.

The annual asset management fee is capped at 0.5% of assets under management (AuM), and only up to 15% of total PPK assets (so if a provider manages – for instance – 20% of assets in the PPK system, not all of these assets can be considered in the AuM that determines the level of the fee cap).[737] A performance fee of at most 0.1% of AuM may be charged if the rate of return is positive and above a minimum level defined in secondary regulations.[738] So far, the fees that are charged in practice are often below the cap: the average fee charged by providers in the first quarter of 2020 was 0.36% of AUM.[739] In contrast, annual management fees for PPEs (a type of

728 Ibid.

729 Ibid.

730 Rudolph, H.P. (2019), 'Pension Funds with Automatic Enrollment Schemes – Lessons for Emerging Economies', *World Bank Policy Research Working Paper 8726*. Available at http://documents1.worldbank.org/curated/en/368081549376313709/pdf/WPS8726.pdf.

731 Ibid.

732 MojePPK, 'Financial Institutions'. Available at https://www.mojeppk.pl/lista-instytucji-finansowych.html.

733 Social Security Institution (ZUS) (2019), 'Social Security in Poland'. Available at https://www.zus.pl/documents/10182/167615/Social+Security+in+Poland/71ffe1b1-c142-48fa-a67b-0c7e1cec6eb6.

734 Ibid.

735 MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

736 MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

737 OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at https://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

738 Ibid.

739 MojePPK, 'Kalkulator PPK (PPK calculator)', available at https://www.mojeppk.pl/kalkulator.html.

voluntary occupational pension plan, mentioned above) typically range between 0.5% and 4%.[740] Given that the PPK scheme was introduced only recently, there is only early data on PPK fund performance. In 2020, target date PPK funds achieved an average return of 13.0%.[741]

A 'TEE' ('Taxed-Exempt-Exempt') regime applies to the PPK scheme.[742] The employee pays income tax on the value of employer contributions.[743] The exemption from capital gains tax applies only if the saver chooses the default decumulation option.[744] The default decumulation option is to withdraw 75% of assets in at least 120 monthly instalments while taking the remaining 25% as a lump sum.[745] Benefits can also be taken through a policy in insurance institution with the right to periodical or lifelong provision, an account of fixed-term deposit on the terms and conditions specified in the Act; withdrawal of the funds in the form of matrimonial benefit.[746] Decumulation by these methods provides an exemption from capital gains tax.[747] Savers may also take all the assets as a lump sum or to take out the assets over time in fewer than 120 instalments; in each of these cases capital gains tax is payable.[748]

The age from which one can make withdrawals from the scheme without penalty is 60.[749] A saver aged under 45 may withdraw up to 100% of their funds in order to purchase a house without penalty but must repay the capital within 15 years.[750] Capital may also be withdrawn without penalty in the event that the saver, their spouse or their child becomes seriously ill.[751] Otherwise, a saver can withdraw capital at any time before 60 but if they do so they must forfeit 30% of employer contributions and all state contributions, and they must pay capital gains tax.[752]

A dedicated portal, MojePPK, was set up to provide information on the PPK scheme for employees and employers.[753] Amongst many other things, it allows savers to simulate their future pension by varying several parameters such as their contribution rate, their retirement age and their decumulation method.[754]

Box 5 Retirement savings from an occupational auto-enrolment pension scheme in Poland – Illustrative examples

It is assumed that an individual becomes automatically enrolled into an occupational pension scheme at the age of 18. The following age and income assumptions are made for each gender:

Input/assumption	Male	Female
Retirement age[1]	65	61
Life expectancy at age 65[2]	81	85

[740] Šebo, J. and Voicu, S.D. (2020), 'Pension Savings: The Real Return - 2020 Edition', *Better Finance*. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Edition.pdf.

[741] Instytut Emerytalny (2021), 'Summary of the PPK results at the end of 2020'. Available at http://www.instytutemerytalny.pl/wp-content/uploads/2021/01/Podsumowanie-wynik%C3%B3w-PPK-na-koniec-2020_-05012020.pdf.

[742] MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[743] Ibid.

[744] Ibid.

[745] Ibid.

[746] Ibid.

[747] Ibid.

[748] Ibid.

[749] Ibid.

[750] Ibid.

[751] Ibid.

[752] Ibid.; Social Security Institution (ZUS) (2019), 'Social Security in Poland'. Available at https://www.zus.pl/documents/10182/167615/Social+Security+in+Poland/71ffe1b1-c142-48fa-a67b-0c7e1cec6eb6.

[753] See https://www.mojeppk.pl/.

[754] See MojePPK, 'Kalkulator PPK (PPK calculator)', available at https://www.mojeppk.pl/kalkulator.html.

Gross annual average earnings at age of enrolment[3]	€11,874	€10,457
Annual earnings growth[4]	4.5%	4.5%

Note: [1] Based on OECD data "Current retirement ages for a person who entered the labour force at age 22". This may be different to "Future retirement ages for a person who entered the labour force at age 22". [2] Based on OECD data "Life expectancy at age 65". [3] Based on 2018 Eurostat data from the "Structure of earnings survey: Annual earnings" for individuals aged less than 30 years and employed full-time. [4] Based on OECD data "Average annual wages" and calculated using wages in current prices. Average annual nominal growth computed over 2010 to 2019 and assumed to be the same for males and females.

It is assumed that a male remains in full-time employment from the age of enrolment to the retirement age. On the other hand, it is assumed that a female takes a total of six years out of work from the age of 30 for childcare[755] and returns to the workforce at the same level of earnings as when she left (adjusted for nominal earnings growth).

Contributions to the occupational pension scheme in each year of employment are assumed to be as follows:

- Employees contribute 2% of their gross earnings
- Employers contribute 1.5% of the employee's gross earnings
- The government provides a 'one-off' welcome contribution of PLN 250 (€55) and contribute PLN 240 annually (€53).

During the accumulation phase, it is assumed that the annual rate of return on investment is 3.5% and management costs of the fund are assumed to be 0.5%.[756] The net rate of return of 3.0% is assumed to be constant throughout the saving period.

The following tax incentives are modelled. For comparability across countries, it is assumed that the pension pot accumulated at the time of retirement does not earn any additional income during the pay-out period (e.g., the individual does not purchase a life annuity scheme).

Aspect of retirement savings	Tax treatment
Contributions	Employer contributions into a PPK scheme are taxed at the employee's marginal rate of income tax (excluding employee and employer social security contributions). Employee contributions are paid from earnings that have been taxed but are subject to social security contributions (17.8% from OECD data).
Returns on investments	Returns on investments are not taxed.
Funds accumulated	No tax applies on funds accumulated.
Pension income	It is assumed that a one-time tax-free pay-out of 25% of pension income is made immediately and the remaining 75% of the value is withdrawn over at least 10 years and is not subject to tax.

Source: OECD (2020), 'Financial incentives for funded private pension plans in OECD countries'.

Given the above inputs and assumptions, the table below provides pension income estimates in Poland broken down by gender and earnings.

[755] This is consistent with modelling scenarios made by Dekkers, et.al (2020). In reality, females may return to work sooner or on a part-time basis as well as have multiple career breaks; however, for simplicity, a one-off six-year break with no earnings is modelled.

[756] These are the assumptions modelled by default in https://www.mojeppk.pl/kalkulator.html.

Table 4 Retirement savings from an occupational auto-enrolment pension scheme in Poland – Illustrative examples

Gender	Male			Female		
Annual earnings at enrolment (€)	11,874 (average)	33% below average	33% above average	10,457 (average)	33% below average	33% above average
Pension pot (before tax) (€)	101,923	70,166	133,679	64,229	44,907	83,552
Tax-free lump sum (€)	25,481	17,542	33,420	16,057	11,227	20,888
Pension income (after tax and lump sum) (€)	76,442	52,625	100,259	48,172	33,680	62,664
Total pension income after tax (€)	101,923	70,166	133,679	64,229	44,907	83,552
Annual average payments over lifetime[1] (€)	10,192	7,017	13,368	6,423	4,491	8,355
Replacement rate[2]	11%	12%	11%	11%	12%	11%

Note: Marginal income tax rates are sourced from OECD data. [1] Annual average payments are calculated by dividing total pension income by minimum of 10 years or the difference in retirement age and life expectancy age. [2] Replacement rates are calculated as [Annual average payments over lifetime divided by earnings immediately before retirement] ×100.

5.4.4. Evidence on the impact of the introduction of the auto-enrolment scheme

When the PPK scheme was designed, participation was expected to be 75%.[757] However, to date participation has been below this anticipated level. In 2019, participation amongst employees who were in the scope of the PPK scheme was around 40%, though participation rates varied considerably between companies.[758] Participation was lower in companies where there were larger proportions of employees on contracts of mandate (who are within the scope of auto-enrolment[759]) – a flexible form of contract popular in Poland - amongst their employees.[760] By the first quarter of 2021, it was estimated that 24% of employees who were in the scope of the PPK scheme were participating.[761] Data on participation after the completion of the roll-out of PPKs to micro-employers and the public sector is not available at the time of writing.

This information should be regarded as being only very early evidence of the impact of the introduction of auto-enrolment, given that the introduction of PPKs was completed only very recently at the time of writing.

5.4.5. Description of factors that influenced the performance of the auto-enrolment scheme

5.4.5.1.Trust

A lack of trust in private pension schemes in Poland has been identified as a cause of the limited impact of PPKs so far.[762] As described above, between 2011 and 2014 around two-thirds of

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757 Instytut Emerytalny and Wojewódka i Wspólnicy (2019), 'Levels of participation in Employee Capital Plans'. Available at http://www.instytutemerytalny.pl/wp-content/uploads/2017/08/Level-of-participation-in-PPK-_November-2019.pdf.

758 Ibid.

759 Ibid.

760 Ibid.

761 Krzykowski, K. (2021), 'PPK – how many people have signed up? Is it worth it? What are the benefits? Summary of the Pension Institute', *Polish News*. Available at https://www.polishnews.co.uk/ppk-how-many-people-have-signed-up-is-it-worth-it-what-are-the-benefits-summary-of-the-pension-institute/.

762 See, for instance, OECD (2019), 'How does Poland compare?', *Pensions at a Glance 2019*. Available at https://www.oecd.org/poland/PAG2019-POL.pdf; see also, for instance, Krzykowski, K. (2021), 'PPK – how many people have signed up? Is it worth it? What are the benefits? Summary of the Pension Institute', *Polish News*. Available at https://www.polishnews.co.uk/ppk-how-many-people-have-signed-up-is-it-worth-it-what-are-the-benefits-summary-of-the-pension-institute/.

contributions to OFEs and around half of the assets accrued in OFEs were redirected to the public pillar in response to fiscal challenges.[763] This intervention reduced trust in private pensions in Poland[764] and the lack of trust is believed to have discouraged participation in PPKs. In an effort to address this issue, the private nature of PPKs and the differences between PPKs and OFEs are highlighted in communications relating to the PPK.

5.4.5.2.COVID-19

Moreover, the roll-out of PPKs was disrupted by the COVID-19 pandemic. As described above, the deadline for the second phase of the roll-out was extended because of the pandemic and attendant disruptions.[765] In addition, the pandemic reduced incomes for many employees and increased levels of uncertainty. The reduction in income may have contributed to a perception held by a number of employees that contributions to PPKs were not affordable. Furthermore, in the context of greater economic (and societal) uncertainty, employees may have preferred to save in more liquid vehicles than PPKs.

5.4.5.3.Introduction timeframe

Finally, although the roll-out of PPKs was staged over nearly two years, the length of time between the passage of the PPK Act and the beginning of the roll-out of PPKs was just seven months.[766] This was a short period of time to license providers and to convey to stakeholders, including employees, the nature of and rationale for the reforms.[767] Italy and Turkey are examples of other countries that introduced an auto-enrolment scheme with a short implementation period and that had less positive experiences of auto-enrolment than, for instance, the UK and New Zealand.[768]

5.4.6. Looking forward

Bartosz Marczuk, vice-president of the Polish Development Fund, reportedly stated that he believed that participation will grow over time, as was the case in the UK's auto-enrolment scheme.[769] He argued that savers in the PPK scheme will serve as 'ambassadors', showing to others the benefits of saving in the PPK scheme.[770] In addition, the disruptive effect of COVID-19 may recede in the coming years, and trust in funded pensions may (having been eroded by the treatment of OFEs) grow greater. Participation may therefore be greater in the future and after the first round of re-enrolment.

The open pension funds are likely to be liquidated in 2021,[771] with the accumulated capital transferred either to an IKE – which will be the default option – or to the NDC system.[772] In the case when the open pension fund capital is transferred to an IKE, the associated benefits at the pay-out stage will not be taxed.[773]

[763] OECD (2019), 'How does Poland compare?', *Pensions at a Glance 2019*. Available at https://www.oecd.org/poland/PAG2019-POL.pdf.

[764] Ibid.

[765] See https://www.wiatr.wroc.pl/en/2020/10/20/the-deadline-is-approaching-for-the-implementation-of-the-employee-capital-plans-ppk-in-small-and-medium-sized-companies/.

[766] Rudolph, H.P. (2019), 'Pension Funds with Automatic Enrollment Schemes – Lessons for Emerging Economies', *World Bank Policy Research Working Paper 8726*. Available at http://documents1.worldbank.org/curated/en/368081549376313709/pdf/WPS8726.pdf.

[767] Ibid.

[768] Ibid.

[769] Krzykowski, K. (2021), 'PPK – how many people have signed up? Is it worth it? What are the benefits? Summary of the Pension Institute', *Polish News*. Available at https://www.polishnews.co.uk/ppk-how-many-people-have-signed-up-is-it-worth-it-what-are-the-benefits-summary-of-the-pension-institute/.

[770] Ibid.

[771] Warsaw Business Journal (2020), 'OFEs with disastrous results for last three years'. Available at https://wbj.pl/ofes-with-disastrous-results-for-last-three-years/post/128733.

[772] OECD (2019), 'How does Poland compare?', *Pensions at a Glance 2019*. Available at https://www.oecd.org/poland/PAG2019-POL.pdf.

[773] Ibid.

5.4.7. Lessons learned

The following lessons for other countries considering introducing an auto-enrolment mechanism arise from Poland's early experiences of introducing an auto-enrolment scheme:

- **Contextual factors** are very important for the success of auto-enrolment. Poland's auto-enrolment scheme is characterised by a number of design features that are also present in highly successful auto-enrolment schemes in, for example, the UK. For instance, its introduction was staged according to employer size, and the mandatory employer contributions serve as an incentive for employees to participate. However, to date the evidence suggests that auto-enrolment had a smaller impact on saving in occupational pensions in Poland than in these more highly successful schemes.
- **Trust** is important to the success of auto-enrolment and attempts to reassure savers may not be successful in rebuilding trust. Despite the involvement of social partners in the development of the PPK scheme[774] and reassurance that savings in a PPK are the private property of the saver[775], employees may be worried about the security of private pensions. Such worries have been cited as a reason for the lower-than-expected uptake of PPKs.[776]
- It is important to allow **sufficient time for the implementation** of an auto-enrolment scheme. While the rollout of PPKs was staged, there were only seven months between the passage of the relevant legislation and the beginning of the scheme's rollout.[777]

These 'lessons learned' reflect LE Europe's judgement based on the findings from the literature that are described above.

5.5. Turkey

Prior to the introduction of auto-enrolment, the Turkish pension system consisted of a public pension, a mandatory occupational pension scheme for selected employers, and a voluntary personal pension system. Despite large tax and non-tax financial incentives for the personal pension system the take-up rates for private pensions remained low. An occupational auto-enrolment scheme was implemented in 2017 to increase the size of the private pension system.[778] Although this has contributed to the development of the private pension system, the auto-enrolment scheme has not been as successful as was hoped due to low contributions and high opt-out rates. In addition, the auto-enrolment scheme may be exacerbating existing pension inequalities in Turkey.

Context

A multi-pillared pension system emerged in the early 2000s in Turkey under the auspices of the International Monetary Fund (IMF) and the World Bank.[779] The pension system consists of a PAYG social security system, occupational pension schemes and a private personal pension system.[780] The occupational pension schemes include two mandatory schemes, for military

[774] Polish Development Fund Group, 'Employee Capital Plans (PPK)'. Available at https://pfr.pl/en/employee-capital-plans.html

[775] See, for instance, MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[776] Krzykowski, K. (2021), 'PPK – how many people have signed up? Is it worth it? What are the benefits? Summary of the Pension Institute', *Polish News*. Available at https://www.polishnews.co.uk/ppk-how-many-people-have-signed-up-is-it-worth-it-what-are-the-benefits-summary-of-the-pension-institute/.

[777] Rudolph, H.P. (2019), 'Pension Funds with Automatic Enrollment Schemes – Lessons for Emerging Economies', *World Bank Policy Research Working Paper 8726*. Available at http://documents1.worldbank.org/curated/en/368081549376313709/pdf/WPS8726.pdf.

[778] OECD (2019), Financial Markets Insurance and Pensions: Inclusiveness and Finance. Available at www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[779] Babat, S., Gultekin-Karakas, D. and Hisarciklilar, M. (2020), An appraisal of Turkey's voluntary individual pension system from a perspective of pension equality. Social Policy and Administration. 2020: 1–18.

[780] Peksevim, S. and Akgiray, V. (2019), Reforming the Pension System in Turkey: Comparison of Mandatory and Auto-Enrolment Pension Systems in Selected OECD Countries. Available at www.oecd.org/pensions/Reforming-the-Pension-System-in-Turkey-2019.pdf.

personnel and the employees of state-owned coal mining companies, and 250 voluntary occupational pension schemes.[781]

Since the inception of personal pensions in Turkey in 2003, the government has offered incentives to individuals who save through the personal pension system.[782] The personal pension system only began to expand in 2013 when the Turkish government started contributing 25% of the investment, capped at 25% of the annual minimum wage.[783] Participants are entitled to the 25% matching contribution depending on the number of years that they have been in the system; only individuals who retire at 56 and have saved for longer than 10 years are entitled to the full amount.

Despite generous subsidies to incentivise savings, take-up rates for the personal pension system have remained low in comparison to other OECD countries. The total size of private pension funds in Turkey has increased since 2013; however, it still represented only 2.6% of GDP in 2019, compared to the OECD average of 50.7% of GDP.[784] Furthermore, although the pension system is meant to target long term savings, in Turkey the average term of a contract is 3.4 years, meaning that individuals only contribute to the scheme for an average of 3.4 years before exiting.[785]

The auto-enrolment scheme

An auto-enrolment scheme was implemented from 2017 to promote private pension saving in Turkey.[786] Under the auto-enrolment scheme, all employees under the age of 45 are automatically enrolled in a pension scheme unless they opt out.[787] Employers are responsible for selecting a provider and automatically enrolling their employees.[788] Implementation was staged by employer size over a period of two years.[789] Individuals must contribute at least 3% of their gross income (with a minimum contribution of 50 TRY per month), while employers are not required to contribute.[790] Individuals begin contributing immediately after being automatically enrolled. An opt-out window of 60 days exists; if an individual opts out during this window, the contributions they have already made are refunded.[791] An individual can exit the scheme at any point after the end of the opt-out window.[792] Automatic re-enrolment of those who have opted out occurs every three years,[793] although the first re-enrolment, due to occur in 2020 and for those who opted out in 2017, was postponed to 2022.[794]

As is the case for personal pensions, the government makes a ‘matching’ contribution of 25% of the employee’s contribution for those who retire at 56 and who have saved in the scheme for at least 10 years.[795] The government also makes a 1000 TRY contribution for those who do not opt

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[781] Ibid.

[782] Babat, S., Gultekin-Karakas, D. and Hisarciklilar, M. (2020), An appraisal of Turkey's voluntary individual pension system from a perspective of pension equality. Social Policy and Administration. 2020: 1–18.

[783] IMF (2016). Turkey selected issues. IMF country report. No.16/105, April. IMF, Washington

[784] Sumer, L. and Ozorhon, B. (2019), The Shortcomings of Pension System in Turkey: Solutions with a New Model Proposed. International Journal of Islamic Economics and Finance Studies. Vol. 2: 23-48.

[785] Ibid.

[786] Peksevim, S. and Akgiray, V. (2019), Reforming the Pension System in Turkey: Comparison of Mandatory and Auto-Enrolment Pension Systems in Selected OECD Countries. Available at www.oecd.org/pensions/Reforming-the-Pension-System-in-Turkey-2019.pdf.

[787] Ibid.

[788] OECD (2019), Financial Markets Insurance and Pensions: Inclusiveness and Finance. Available at www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[789] Peksevim, S. and Akgiray, V. (2019), Reforming the Pension System in Turkey: Comparison of Mandatory and Auto-Enrolment Pension Systems in Selected OECD Countries. Available at www.oecd.org/pensions/Reforming-the-Pension-System-in-Turkey-2019.pdf.

[790] Ibid.

[791] OECD (2019), Financial Markets Insurance and Pensions: Inclusiveness and Finance. Available at www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[792] Ibid.

[793] Ibid.

[794] Insurance & Private Pension Regulation Supervision Agency (Turkey) (2020), available at https://www.mercer.com/content/dam/mercer/attachments/global/law-and-policy/gl-2020-turkey-glu-pension-delay.pdf.

[795] OECD (2019), Financial Markets Insurance and Pensions: Inclusiveness and Finance. Available at www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

out during the 60-day opt-out window,[796] although this is realised upon retirement and there are worries that this incentive will not prove to be sustainable.[797] The government also provides a contribution worth 5% of accumulated assets for those who choose an annuity with a term of at least ten years at the decumulation stage.[798]

There is not a particular structure for default funds within Turkey's auto-enrolment scheme.[799] A cap applies to fund management fees.[800]

At the decumulation phase, savers can take benefits as a lump sum, through programmed withdrawals or through an annuity.[801] However, annuity markets in Turkey are relatively undeveloped and the range of products that savers can choose from is not wide.[802]

Results of the auto-enrolment scheme

Overall, the auto-enrolment scheme was not as successful in Turkey as in some developed countries such as the UK and New Zealand, mainly due to high opt-out rates. Over half of the individuals who were automatically enrolled in a pension scheme during the first year opted out of the system during the two-month opt-out period.[803] The main reasons provided for opting-out of the pension scheme are high level of expenses or debt (71%), lack of affordability (56%), concerns related to the long-term investment (35%) and invests in other savings vehicles (30%).[804]

Despite high opt-out rates, the auto-enrolment scheme has seen a large number of people saving privately for retirement. As of 16th July 2021, more than 5.8 million people were saving in Turkey's auto-enrolment scheme.[805]

Saydam argues that the pension system in Turkey is not compatible with the labour market because it does not account for low labour force participation, high youth unemployment and high levels of informal employment.[806] Auto-enrolment may exacerbate inequalities between those who are in formally employed jobs and those who work in the informal sector.

Babat et al analyse the effect of the personal pension system in Turkey on pension equality and find that the system exacerbates inequalities.[807] Their study shows that weaker social segments such as women, low-income earners, less educated and younger individuals as well as individuals living in less developed areas are at a disadvantage. Although this research is based on pension data pre-2017 (before the auto-enrolment scheme was implemented), the authors speculate that a similar relationship would exist in the auto-enrolment scheme. This is because only individuals who are employed in the formal sector will be automatically enrolled, and only those whose salaries are high enough to be able to afford to contribute 3% of their incomes will not opt-out of the scheme.

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[796] Ibid.

[797] Peksevim, S. and Akgiray, V. (2019) Reforming the Pension System in Turkey: Comparison of Mandatory and Auto-Enrolment Pension Systems in Selected OECD Countries. Available at www.oecd.org/pensions/Reforming-the-Pension-System-in-Turkey-2019.pdf.

[798] OECD (2019), Financial Markets Insurance and Pensions: Inclusiveness and Finance. Available at www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[799] Peksevim, S. and Akgiray, V. (2019) Reforming the Pension System in Turkey: Comparison of Mandatory and Auto-Enrolment Pension Systems in Selected OECD Countries. Available at www.oecd.org/pensions/Reforming-the-Pension-System-in-Turkey-2019.pdf.

[800] Ibid.

[801] Ibid.

[802] Ibid.

[803] Ibid.

[804] Sumer, L. and Ozorhon, B. (2019) The Shortcomings of Pension System in Turkey: Solutions with a New Model Proposed. International Journal of Islamic Economics and Finance Studies. Vol. 2: 23-48.

[805] Pension Monitoring Center (2021), https://www.egm.org.tr/.

[806] Saydam, A. (2018) The Incompatibility of the Pension System and the Labour Market in Turkey. Journal of Balkan and Near Eastern Studies. 20(4): 332-348.

[807] Babat, S., Gultekin-Karakas, D. and Hisarciklilar, M. (2020) An appraisal of Turkey's voluntary individual pension system from a perspective of pension equality. Social Policy and Administration. 2020: 1–18.

5.6. United Kingdom

The UK has had a positive experience in introducing auto-enrolment. Occupational pension coverage has increased significantly since auto-enrolment's introduction, and participation has risen substantially amongst low-wage earning eligible employees in particular. Opt-out rates from auto-enrolment are low, at approximately 7%. A particularly significant feature of the UK's mechanism was the establishment of the National Employment Savings Trust (Nest), a low-cost provider set up by the government and open to all employers. Nest serves millions of pension savers[808] and has been described as a successful intervention.[809]

The series of reforms which led to the current UK pension system began in early 2002 with the creation of the Pensions Commission, also known as the Turner Commission. This independent commission was set up to try to address issues with long-term retirement saving in the UK. Reforms recommended by the commission covered both the State and occupational pensions. A series of legislative reforms were enacted between 2007-2008 and automatic enrolment was implemented in 2012[810].

In general, the UK's experience of automatic enrolment has been positive. In 2019, a total of 77 percent of UK employees were members of a workplace pension scheme, up from 47% in 2012. Young workers have benefited from reforms, workplace pension membership of those aged 22 to 29 years has increased from 31% in 2012 to 80% in 2019. In the private sector, 77% of men and 69% of women have workplace pensions. In the public sector there is no longer a gender gap in pension participation[811]. Whilst the system has been successful in enrolling participants, issues remain regarding the level of contributions, exclusion of the self-employed and those in non-traditional work, deferred small pension pots[812] and decumulation decisions.

5.6.1. Description of the pension system prior to the introduction of auto-enrolment

Prior to the introduction of automatic enrolment, the UK pension system comprised three tiers. The first consisted of a Basic State Pension (BSP) and a means-tested top-up. The second included the State Earnings Related Pension (SERPS) or the State Second Pension (S2P), the Stakeholder pension and occupational DB and DC schemes. The third tier was comprised of private pensions.

The BSP is a universal flat-rate contributory benefit. Introduced after World War II, the aim of the BSP was to provide elderly people with a level of income that guaranteed a minimum subsistence level but at a flat rate to encourage further pension saving. Individuals accrue State pension entitlements through National Insurance contributions or qualifying activities such as caring for children, searching for work, or receiving disability benefits. Individuals are entitled to the 'full State pension' after 30 years of contributions. The BSP was introduced alongside the means-tested top up which aimed to alleviate pensioner poverty. From 1973 to 1980, the value of the BSP was indexed to prices and average earnings. This indexing was subsequently changed so that the BSP only rose with prices. Since 2003 the value of BSP has been required to increase by at least 2.5%.

The State Earnings Related Pension (SERPS)[813] and the State Second Pension (S2P) were earnings related pensions provided by the UK government. Introduced in 1975 and rolled-out in 1978, SERPS increased the previously low replacement rates of the UK. In 2002, SERPS was replaced by

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[808] See, for instance, Jones, R. (2019), 'This pension scheme has 8m members – and ethical savers do best', *The Guardian*. 15th November 2019. Available at https://www.theguardian.com/money/2019/nov/15/Nest-pension-scheme-ethical-savers-climate.

[809] See, for instance, Rudolph, H.P. (2019), 'Pension Funds with Automatic Enrollment Schemes – Lessons for Emerging Economies', *World Bank Policy Research Working Paper 8726*. Available at http://documents1.worldbank.org/curated/en/368081549376313709/pdf/WPS8726.pdf.

[810] Pensions Act 2008, Section 3, available at : https://www.legislation.gov.uk/ukpga/2008/30/contents.

[811] https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/workplacepensions/bulletins/annualsurveyofhoursandearningspensiontables/2019provisionaland2018finalresults

[812] Deferred small pension pots are pension pots whereby the member is no longer contributing but leaves the monies in the scheme. While there is no fixed value which defines a 'small pot' they are generally considered less than £2,000.

[813] Social Security Act 1986, Part 1, available at: https://www.legislation.gov.uk/ukpga/1986/50/contents.

S2P, a mandatory, earnings-related state pension. From 6th April 2016, S2P was replaced for new pensioners reaching State Pension age with the introduction of the new State Pension.[814]

The Stakeholder pension was introduced in 1997[815]. Stakeholder pensions are similar to private pensions as they are individual contracts between the beneficiary and the pension provider. The pension provider is often an insurance company or an investment platform, although there are also several other providers, including banks and building societies[816]. It provides a charge cap at 1.5% per year for the first 10 years and then 1% thereafter. Additionally, contributions can be stopped or started at any time and members are provided with a default fund if they do not want to make an investment choice[817].

Personal pension schemes were first introduced in 1986, enabling individuals to save for retirement outside of a government or occupational scheme for the first time[818]. As a result of legislation, individuals could 'contract out' of their State Earnings Related Pension Scheme (SERPS) for the first time if their employer ran a contracted-out pension scheme. If an employee contracted out, their National Insurance contributions were either reduced or redirected into an occupational scheme or personal/stakeholder pension. Contracting out of SERPS was often a sub-optimal choice for savers as they were no longer benefitting from the same amount of employer National Insurance contributions and plans were often subject to high fees. This change in legislation resulted in a large expansion in the provision of pension products and over 5 million pensions were sold. However, these schemes were marred by several mis-selling scandals. According to the memorandum submitted by HM Treasury as part of the ninth report, The Mis-selling of Personal Pensions, 'in general' personal pensions were most suitable for those who moved between employers frequently (or were self-employed or ineligible for an occupational scheme). Additionally, the Life Insurance Association (LIA) said that those who did not expect to be with an employer for more than two or three years might very well be better off with a personal pension; other people should have been advised to join their employer's scheme. Decisions to contract out of an occupational plan and into a personal savings plan were often the result of mis-selling, exacerbated by salespersons pay depending heavily on commissions[819].

The low level of benefits received from the State pension heightened the importance of occupational and private pensions as a source of income in retirement. However, workplace pension participation was prevalent in the public sector. Indeed, 88% of public sector employees participated in an employer-provided pension scheme in 2012 compared to 42% of private sector employees. Prior to automatic enrolment, employers with five or more employees were obliged, if requested by an employee, to facilitate membership of a stakeholder pension scheme where employees' contributions could be deducted directly from employees' pay, although employers were not obliged to make contributions to a scheme[820].

There were three main reasons why the UK implemented a pension reform. Firstly, retirement income was important as a social issue and an electoral concern as it was deemed to affect everyone. Secondly, between the 1980s and 1990s, pensioner poverty increased substantially in the UK. Finally, pensions were the largest component of the UK welfare State in terms of public spending[821].

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[814] UK Government, 'Additional State Pension: Eligibility'. Available at https://www.gov.uk/additional-state-pension/eligibility.

[815] Welfare Reform and Pensions Act 1999, available at: https://www.legislation.gov.uk/ukpga/1999/30/contents.

[816] Pensions Advisory Service. 2021. *Stakeholder Pension Schemes - The Pensions Advisory Service*. [online] Available at: <https://www.pensionsadvisoryservice.org.uk/about-pensions/pensions-basics/contract-based-schemes/stakeholder-pension-schemes> [Accessed 7 May 2021].

[817] Pensions Advisory Service. 2021. *Stakeholder Pension Schemes - The Pensions Advisory Service*. [online] Available at: <https://www.pensionsadvisoryservice.org.uk/about-pensions/pensions-basics/contract-based-schemes/stakeholder-pension-schemes?moreInfo=4> [Accessed 13 May 2021].

[818] Social Security Act 1986, Part 1, available at: https://www.legislation.gov.uk/ukpga/1986/50/contents.

[819] Publications.parliament.uk. 2021. *House of Commons - Treasury - Ninth Report*. [online] Available at: <https://publications.parliament.uk/pa/cm199798/cmselect/cmtreasy/712/71203.htm> [Accessed 7 May 2021].

[820] Cribb, J. and Emmerson, C. (2016), 'What happens when employers are obliged to nudge? Automatic enrolment and pension saving in the UK', *Institute for Fiscal Studies*.

[821] Massala, T. and Pearce, N., 2020. *Pension Reforms in the UK: 1997 to 2015*. [online] Bath.ac.uk. Available at: <https://www.bath.ac.uk/publications/pension-reforms-in-the-uk-1997-to-2015/attachments/pension-reforms-uk.pdf> [Accessed 10 May 2021].

5.6.2. *Timeline of the introduction of auto-enrolment*

The Pensions Green Paper, published in December 2002, highlighted concerns regarding the levels of pension saving and participation in voluntary pension plans, and the decline of Defined Benefit pensions and occupational plans more generally[822]. Following the publication, the Pensions Commission was established. The commission's remit was originally restricted to assessing voluntary private pension savings and not the State pension system. However, within six months the commission realised it needed to expand its remit to cover the State pension system as it found that it was impossible to address the incentives of private saving without looking at the impact of the State pension. The remit of the commission was expanded.

In 2005, the Pensions Commission recommended that employers automatically enrol their employees into workplace pensions with at least a minimum level of contributions by both employees and employers. Workplace pension schemes are facilitated but not necessarily run by the employer. Additional recommendations included the creation of a National Pension Savings Scheme (NPSS) and reforms to the State pension. The UK government legislated automatic enrolment in occupational pensions in the Pensions Act 2008[823]. In 2007, the Personal Accounts Delivery Authority (PADA) was established to provide advice to government regarding the NPSS. In 2010, PADA was replaced by Nest Corporation, which provides a national pensions savings scheme[824].

The introduction of automatic enrolment led to a significant increase in the number of Master Trust schemes. Master Trusts offer workplace pensions to groups of employers that are not connected with each other and are run by a trustee board. More than 90% of those brought into a workplace pension through automatic enrolment were enrolled in a Master Trust.

Nest is a master trust available to all employers so that they can meet their automatic enrolment duties. Nest has a public service obligation to accept any employer (whatever their size). Nest ensured that the self-employed and low- and middle-income employees working in small- to medium-sized companies, who are often unprofitable pension customers for retail financial services providers, could be served[825]. In October 2018, legislation introducing an authorisation and supervision regime for Master Trusts came into effect to improve protection for beneficiaries[826]. As a result of the legislation the number of master trusts reduced by more than half, from 90 in 2018 to 37 in 2019[827].

The obligation for employers to automatically enrol their employees was introduced gradually, in a 'staged' rollout between October 2012 and February 2018. Implementation was based on employer size, starting with the largest employers. Employer size was measured by the number of employees part of its Pay-As-You-Earn scheme (the scheme by which income and payroll tax payments are withheld from employees' earnings). Each employer was given a 'staging date' from which they had to enrol their employees (see UK country fiche in section 12.16 of Annex 3 for further details). Employers could postpone enrolment by up to 3 months or could introduce automatic enrolment earlier than their staging date by informing the Pensions Regulator.

5.6.3. *Description of the characteristics of the auto-enrolment scheme*

Employees are eligible for automatic enrolment if they ordinarily work in the UK, are aged at least 22 and below the State pension age (66 in 2021) and earn more than £10,000 per annum from a single place of employment. Employers must enrol eligible employees and employees can opt-out within one month of being auto-enrolled. If employees opt-out within one month of being enrolled,

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[822] The Pensions Commission, Pensions Green Paper 'Simplicity, security and choice: Working and saving for retirement', December 2002, available at: https://web.archive.org/web/20050301222109/http://www.dwp.gov.uk/consultations/consult/2002/pensions/gp.pdf [Accessed 11 May 2021].

[823] Pensions Act 2008, Section 3.

[824] Pensions Act 2008, Section 75.

[825] Thurley, D., 2021. *Pensions: automatic enrolment - current issues*.

[826] Pension Schemes Act 2017, Section 1, available at: https://www.legislation.gov.uk/ukpga/2017/17/contents.

[827] Assets.publishing.service.gov.uk. 2020. *Automatic Enrolment evaluation report 2019*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/883289/automatic-enrolment-evaluation-report-2019.pdf> [Accessed 9 May 2021].

they will be refunded any contributions which they made during that time frame. If an employee fails to opt out within one month of being enrolled, their contributions will remain invested. Employers must re-enrol eligible employees who have opted-out every three years.[828]

Contributions are calculated upon qualifying earnings. In 2021/22, the qualifying earnings band is £6,240 to £50,270 per annum. The earnings on which an employee's contributions are based are their salary, up to a maximum of £50,270 less the lower level of qualifying earnings i.e., £6,240[829]. Earnings bands are reviewed annually by the Department for Work & Pensions.

	2021/22	2020/21	2019/20	2018/19	2017/2018	2016/2017	2015/2016	2014/2015	2013/14	2012/2013
Lower level of qualifying earnings	£6,240	£6,240	£6,136	£6,032	£5,876	£5,824	£5,824	£5,772	£5,668	£5,564
Earnings trigger for automatic enrolment	£10,000	£10,000	£10,000	£10,000	£10,000	£10,000	£10,000	£10,000	£9,440	£8,105
Upper level of qualifying earnings	£50,270	£50,000	£50,000	£46,350	£45,000	£43,000	£42,385	£41,865	£41,450	£42,475

Source: The Pensions Regulator[830]

There are minimum levels of contributions to which beneficiaries and employers must adhere. Since 2019, the total minimum level of contributions has remained constant at 8%. This 8% contribution consists of a 3% minimum contribution from the employer, 4% from the employee and 1% in the form of government tax relief. Tax relief can be either relief at source or a net pay arrangement, depending on what the employer chooses for their workforce. Under relief at source, contributions are deducted from an employee's after-tax earnings. The pension provider claims back tax paid on those earnings at the basic rate of 20%, the refund is then paid into the pension account. Individuals paying tax at a higher rate (40%) or additional rate (45%) can claim the difference in the basic tax relief and the amount of tax they paid through their tax return. The additional refund is not paid to the pension account. Under a net pay arrangement, contributions are deducted from gross earnings and income tax is paid on gross earnings net of pension contributions. Employers can choose to enrol their employees automatically into schemes with higher (employee and employer) contributions, although they are prevented from setting the employee contribution rate so high as to deliberately encourage a large proportion of employees to opt out.

Date	Employer contribution	Employee contribution	Government tax relief	Total contribution
From 6 April 2019	3.0%	4.0%	1.0%	8.0%
6 April 2018 to 5 April 2019	2.0%	2.4%	0.6%	5.0%
Up until 5 April 2018	1.0%	0.8%	0.2%	2.0%

Source: The Pensions Advisory Service[831]

828 Pensions Act 2008, Section 3. See also: Thepensionsregulator.gov.uk. 2021. Re-enrolment for employers | The Pensions Regulator. [online] Available at: <https://www.thepensionsregulator.gov.uk/en/employers/re-enrolment> [Accessed 16 April 2021].

829 Thepensionsregulator.gov.uk. 2021. *Earnings thresholds | The Pensions Regulator*. [online] Available at: <https://www.thepensionsregulator.gov.uk/en/employers/new-employers/im-an-employer-who-has-to-provide-a-pension/declare-your-compliance/ongoing-duties-for-employers-/earnings-thresholds> [Accessed 7 May 2021].

830 Thepensionsregulator.gov.uk. 2021. *Earnings thresholds | The Pensions Regulator*. [online] Available at: <https://www.thepensionsregulator.gov.uk/en/employers/new-employers/im-an-employer-who-has-to-provide-a-pension/declare-your-compliance/ongoing-duties-for-employers-/earnings-thresholds> [Accessed 7 May 2021].

831 Pensions Advisory Service. 2021. *How Much Do I & My Employer Have To Pay Towards Pension?*. [online] Available at: <https://www.pensionsadvisoryservice.org.uk/about-pensions/pensions-basics/automatic-enrolment/how-much-do-i-and-my-employer-have-to-pay> [Accessed 7 May 2021].

The lower earnings limit also defines who falls into the category of 'non-eligible job-holders'. Non-eligible job-holders are workers who are either[832]:

- Aged between 16 and 74;
- Working or ordinarily work in the UK under their contract;
- Have qualifying earnings payable by the employer in the relevant pay reference period that are above the lower earnings threshold but below the earnings trigger for automatic enrolment.

or

- Aged between 16 and 21, or State pension age[833] and 74;
- Working or ordinarily work in the UK under their contract;
- Have qualifying earnings payable by the employer in the relevant pay reference period that are above the earnings trigger for automatic enrolment.

Non-eligible job-holders can opt-in to their employer's workplace pension and will benefit from a mandatory employer contribution if they earn between the lower earnings limit and the earnings trigger. Employees earning below £6,240 per year (in 2021-22) are 'entitled workers'. They are not enrolled automatically but can apply to join a pension scheme, although their employer does not have to contribute[834].

Automatic enrolment was introduced with the intention of building upon the foundation of State pension entitlement especially for low to moderate earners. The upper limit of qualifying earnings caps mandatory employer contributions. The rationale for the upper limit is to distinguish lower earners for which automatic enrolment is targeted at and higher earners. Those on higher incomes might reasonably be expected to make personal arrangements for additional saving.[835]

Nest, the provider established by the UK government, has in place a target date investment strategy as a default. Its default funds, which it refers to as 'Retirement date funds', feature a foundation phase in which younger savers save more conservatively initially. The purpose of the inclusion of the foundation phase is to avoid the saver suffering investment losses early in their retirement saving journey. Nest's research found that investment losses can cause younger savers to stop saving for retirement. The foundation phase aims to prevent younger savers stopping saving for this reason, so as to get them 'into the savings habit'.[836] Nest's 2040 Retirement Date fund achieved five-year annualised returns, net of annual management charges, of 7.9%.[837]

Charges for Nest's default fund (as for all of its funds) are composed of a 1.8% contribution charge and an annual management fund of 0.3% of the member's pot value.[838] Transaction costs are included in these charges. Nest's 'internal market' system, described in section 4.3.1, reduces these transaction costs. In the UK's auto-enrolment scheme more generally, management charges are capped at 0.75% of assets under management (AuM), although transaction costs are exempted from this.[839]

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[832] Pensions Act 2008, Section 7; See also: Thepensionsregulator.gov.uk. 2021. *Detailed guidance for employers*. [online] Available at: <https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/detailed-guidance-1.ashx> [Accessed 7 May 2021].

[833] Since April 2020, the State pension age has been increased to 66 for men and women. The State pension age is increasing over time it will rise to 67 by 2028, with a further rise to 68 due between 2037 and 2039. As the State Pension age is kept under review, it could change in the future depending on such factors as life expectancy.

[834] Pensions Act 2008, Section 7.

[835] GOV.UK. 2021. *Review of the automatic enrolment earnings trigger and qualifying earnings band for 2021/22: supporting analysis*. [online] Available at: <https://www.gov.uk/government/publications/automatic-enrolment-review-of-the-earnings-trigger-and-qualifying-earnings-band-for-202122/review-of-the-automatic-enrolment-earnings-trigger-and-qualifying-earnings-band-for-202122-supporting-analysis#fn:9> [Accessed 7 May 2021].

[836] NEST (2013), 'Looking after members' money – NEST's investment approach'. Available at https://www.Nestpensions.org.uk/schemeweb/NestWeb/includes/public/docs/Developing-and-delivering-NESTs-Investment-Approach%2CPDF.pdf.

[837] See UK country fiche.

[838] NEST, 'Nest's charges'. Available at https://www.Nestpensions.org.uk/schemeweb/Nest/aboutNest/Nest-charges.html.

[839] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

Box 6 Retirement savings from an occupational auto-enrolment pension scheme in the UK – Illustrative examples

It is assumed that an individual becomes automatically enrolled into an occupational pension scheme at the age of 22 (i.e., the eligibility threshold in the UK). The following age and income assumptions are made for each gender:

Input/assumption	Male	Female
Retirement age[1]	65	63
Life expectancy age[2]	84	86
Gross annual average earnings at age of enrolment[3]	€31,950	€28,007
Annual earnings growth[4]	2.0%	2.0%

Note: [1] Based on OECD data "Current retirement ages for a person who entered the labour force at age 22". This may be different to "Future retirement ages for a person who entered the labour force at age 22". [2] Based on OECD data "Life expectancy at age 65". [3] Based on 2018 Eurostat data from the "Structure of earnings survey: Annual earnings" for individuals aged less than 30 years and employed full-time. [4] Based on OECD data "Average annual wages" and calculated using wages in current prices. Average annual nominal growth computed over 2010 to 2019 and assumed to be the same for males and females.

It is assumed that a male remains in full-time employment from the age of enrolment to the retirement age. On the other hand, it is assumed that a female takes a total of six years out of work from the age of 30 for childcare[840] and returns to the workforce at the same level of earnings as when she left (adjusted for nominal earnings growth).

Contributions to the occupational pension scheme in each year of employment are assumed to be as follows:

- Employees contribute 4% of their gross earnings
- Employers contribute 3% of the employee's gross earnings
- The government contributes 1% as tax relief under a net pay arrangement (i.e., contributions are deducted before income tax.)

During the accumulation phase, it is assumed that the annual rate of return on investment is 5.0% (net of costs) and constant throughout the saving period.[841]

The following tax incentives are modelled. For comparability across countries, it is assumed that the pension pot accumulated at the time of retirement does not earn any additional income during the pay-out period (the individual is assumed not to purchase, for instance, a unit-linked annuity).

Aspect of retirement savings	Tax treatment
Contributions	For a given individual, pension contributions (from employee and employer) in a year are less than £40,000 (or €47,200 based on an exchange rate of 1.18). Above this threshold, tax relief is limited. The individual has income less than £150,000 (or €177,000 based on an exchange rate of 1.18). Above this threshold, pension tax relief is restricted.
Returns on investments	The income and gains from the pension scheme investments are not taxed.
Funds accumulated	The lifetime allowance is set at £1,073,000 (or €1,266,258 based on an exchange rate of 1.18), which is uprated annually by CPI (assumed to be

[840] This is consistent with modelling scenarios made by Dekkers, et.al (2020). In reality, females may return to work sooner or on a part-time basis as well as have multiple career breaks; however, for simplicity, a one-off six-year break with no earnings is modelled.

[841] NEST data showed 7.9% return on retirement plans (annualised over 5 years from 2016 to 2020). However, this reflects a period of strong stock market performance (See UK fiche; https://www.Nestpensions.org.uk/schemeweb/dam/Nestlibrary/Nest-quarterly-investment-report.pdf and https://www.Nestpensions.org.uk/schemeweb/dam/Nestlibrary/the-effect-of-our-costs-and-charges.pdf). Therefore, a more conservative estimate of 5% annual growth is assumed in the modelling.

	2.0%). It is assumed that any excess above the lifetime allowance is paid as a lump sum with a tax rate of 55%.
Pension income	It is assumed that the individual takes 25% of the pension income as a lump sum which is exempt from tax. The remaining 75% of the value is taxed at the individual's marginal tax rate (excluding employee and employer social security contributions).

Source: OECD (2020), 'Financial incentives for funded private pension plans in OECD countries'.

Given the above inputs and assumptions, the table below provides pension income estimates in the UK broken down by gender and earnings.

Table 5 Retirement savings from an occupational auto-enrolment pension scheme in the UK – Illustrative examples

Gender	Male			Female		
Annual earnings at enrolment (€)	31,950 (average)	33% below average	33% above average	28,007 (average)	33% below average	33% above average
Pension pot (before tax) (€)	519,447	348,038	690,873	347,305	232,698	461,911
Tax-free lump sum (€)	129,862	87,009	172,718	86,826	58,174	115,478
Pension income (after tax and lump sum) (€)	311,668	208,823	414,524	208,383	139,619	277,147
Total pension income after tax (€)	441,530	295,832	587,242	295,209	197,793	392,625
Annual average payments over lifetime[1] (€)	23,238	15,570	30,907	14,058	9,419	18,696
Replacement rate[2]	32%	32%	32%	25%	25%	25%

Note: Marginal income tax rates are sourced from OECD data. [1] Annual average payments are calculated by dividing total pension income by the difference in retirement age and life expectancy age. [2] Replacement rates are calculated as [Annual average payments over lifetime divided by earnings immediately before retirement] ×100.

5.6.4. Evidence on the impact of the introduction of auto-enrolment

Qualitative evidence

Overall, the introduction of automatic enrolment is viewed as a success in the UK. The introduction of the policy has increased workplace pension participation rates and total contribution rates. Additionally, studies have found that the speed and manner in which automatic enrolment was implemented was key in its success. Finally, the time and cost involved in implementation was lower than expected.

Cribb and Emmerson highlight that automatic enrolment has led to large increases in the pension participation rates and in the total contributions to workplace pensions.[842] The automatic enrolment policy increased the total contribution rates into workplace pensions, significantly boosting pension saving. The authors found that the increase in pension saving was partly due to some employers enrolling their employees into pension schemes with employer contributions well above the statutory minimum contributions. The authors found no evidence of employers reducing the employer contributions to newly hired employees or to existing pension scheme members to mitigate the increased labour cost. Moreover, the authors also found that automatic enrolment has resulted in substantial spillover effects as participation rates of workers who did not have to be automatically enrolled were also brought into a workplace pension as a result of the automatic enrolment policy[843]. There has been some evidence of levelling down taking place within workplace pensions. Indeed, a study by the Department for Work & Pensions found that levelling down

[842] Cribb, J. and Emmerson, C. (2016), 'What happens when employers are obliged to nudge? Automatic enrolment and pension saving in the UK', *Institute for Fiscal Studies*.

[843] Ibid.

strategies, that is, reducing the generosity of contributions or outcomes for existing pension scheme members, has increased slightly in the private sector since the introduction of automatic enrolment. The study estimates that around 15% of eligible savers in the private sector were subject to levelling down strategies in 2016 and 2017, compared to 12% of eligible savers in the private sector in 2012[844].

According to the World Bank, the introduction of automatic enrolment in the UK was not only successful but also popular amongst consumers[845]. The establishment of Nest, a government agency acting at arm's length, ensured the application of high governance principles in the automatic enrolment pension fund market and opt-out rates remain low in the United Kingdom compared to many other countries with automatic enrolment, such as Turkey. The low opt-out rates in the UK in comparison to Turkey, may be due to the extensive communication and informational campaign devised by the UK government. Additionally, the speed at which automatic enrolment was rolled out in the UK was seen as a success factor according to the World Bank. Indeed, in the UK, stakeholders had years to prepare for automatic enrolment in comparison to Turkey, where less than five months passed between legislative approval and companies registering their employees for enrolment[846].

The Institute for Fiscal Studies also note that automatic enrolment has been successful in the UK so far. There has been a substantial increase in workplace pension membership and an increase in the amounts being contributed to workplace pensions[847].

According to research commissioned by the Department for Work & Pensions, the majority of employers found the cost and time involved in implementing automatic enrolment to be lower than they had anticipated[848].

According to research conducted by the University of Bath on behalf of Nest, progressive roll-out to employers, also known as 'staging', was key to the successful implementation of auto-enrolment and to the transitioning to mandatory workplace pensions more generally[849]. One of the benefits of staging implementation was that it allowed administrative problems arising from automatic enrolment such as differences in file formats, data templates, etc. between payroll companies and pension providers to be resolved in time for employees in smaller companies being enrolled.

In their 2017 review, The Pensions and Lifetime Savings Association noted that automatic enrolment is working well but there were a number of issues that need to be addressed in order to reach its full potential. In particular, these were an increase in the salience of pension saving, greater engagement with pension matters and an increase in statutory minimum contributions[850].

Quantitative evidence

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844 OECD 2019. *The role of automatic enrolment schemes in enhancing funded pension systems' inclusiveness and retirement income adequacy*. Financial Markets, Insurance and Pensions INCLUSIVENESS AND FINANCE. [online] p.21. Available at: <https://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf> [Accessed 14 June 2021].

845 Ravi-Burslem, R. and Sandbrook, W., 2019. *Communicating NEST Pensions for "New" DC Savers in the United Kingdom*. [online] Openknowledge.worldbank.org. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/31652/Communicating-NEST-Pensions-for-New-DC-Savers-in-the-United-Kingdom.pdf?sequence=1&isAllowed=y> [Accessed 10 May 2021].

846 P. Rudolph, H., 2019. *Pension Funds with Automatic Enrollment Schemes Lessons for Emerging Economies*. [online] Documents1.worldbank.org. Available at: <http://documents1.worldbank.org/curated/en/368081549376313709/pdf/WPS8726.pdf> [Accessed 10 May 2021].

847 Emmerson, C., 2020. *Pensions automatic enrolment: lessons from the UK experience*. [online] Ifs.org.uk. Available at: <https://www.ifs.org.uk/uploads/Pensions-automatic-enrolment-lessons-from-the-UK-experience-ESRI-Carl-Emmerson.pdf> [Accessed 9 May 2021].

848 GOV.UK. 2020. *Summary of final report: Automatic enrolment: qualitative research with newborn employers*. [online] Available at: <https://www.gov.uk/government/publications/automatic-enrolment-qualitative-research-with-new-employers/summary-automatic-enrolment-qualitative-research-with-newborn-employers-final-report> [Accessed 9 May 2021].

849 Pearce, N. and Massala, T., 2021. *Pension Reforms in the UK: 1997 to 2015*. [online] Bath.ac.uk. Available at: <https://www.bath.ac.uk/publications/pension-reforms-in-the-uk-1997-to-2015/attachments/pension-reforms-uk.pdf> [Accessed 7 May 2021].

850 Plsa.co.uk. 2017. *2017 Review of Automatic Enrolment: Response by the Pensions and Lifetime Savings Association*. [online] Available at: <https://www.plsa.co.uk/portals/0/Documents/0631-2017-Review-of-Automatic-Enrolment-PLSA-response.pdf> [Accessed 9 May 2021].

Since the introduction of automatic enrolment, more than 10.2 million workers have been automatically enrolled into a workplace pension and over 1.7 million employers have met their auto-enrolment obligations[851]. Moreover, since the introduction of automatic enrolment, there has been an increase in total membership of DC occupational schemes, from 6.3% of UK employees in 2011 to 78% in 2019[852]. The opt-out rates under ongoing enrolment remains low at just 7%[853].

Overall, 88% of eligible workers were participating in a workplace pension in 2020.[854] The participation rate remained higher in the public sector at 94% (an increase of six percentage points since 2012) compared to 86% in the private sector (an increase of 44 percentage points since 2012).[855]

In 2020, the largest employers (5,000 or more employees) and second largest employers (250 to 4,999 employees) had the highest participation rate of eligible employees in the private sector at 91%, compared with 57% for micro employers (those with one to four employees) in 2020.[856]

Employees who earn £50,000 to £60,000 have the highest participation level at 93% (as of 2020).[857] The largest increase in participation between 2012 and 2020 occurred amongst those earning between £10,000 and £20,000. The difference in workplace pension participation rates between the highest and lowest earners fell from 58 percentage points in 2012 to 13 percentage points in 2020.[858]

In terms of differences in participation rates between age groups, employees aged between 22 and 29 in the private sector saw the largest increase in participation between 2012 and 2020, from 24% to 84%.[859]

Amongst full-time eligible employees in both the public and private sectors, female workers participate in workplace pensions at a greater rate, by two percentage points.[860] In the case of part-time workers, this gap widens to 13 percentage points as the participation rates of female and male employees are respectively 86% and 73%.[861] When auto-enrolment was introduced in 2012, the participation rate amongst eligible male private sector employees was three percentage points higher than amongst eligible female private sector employees; in 2020, participation rates for both groups were equal at 86%.[862]

Non-eligible employee participation in workplace pensions has also increased since the introduction of automatic enrolment. Indeed, participation has risen from 16% in tax year 2012/13 to 34% in

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[851] GOV.UK. 2021. *Review of the automatic enrolment earnings trigger and qualifying earnings band for 2021/22: supporting analysis*. [online] Available at: <https://www.gov.uk/government/publications/automatic-enrolment-review-of-the-earnings-trigger-and-qualifying-earnings-band-for-202122/review-of-the-automatic-enrolment-earnings-trigger-and-qualifying-earnings-band-for-202122-supporting-analysis#fn:9> [Accessed 7 May 2021].

[852] Mainwaring, H., 2021. *Employee workplace pensions in the UK - Office for National Statistics*. [online] Ons.gov.uk. Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/workplacepensions/bulletins/annualsurveyofhoursandearningspensiontables/2020provisionaland2019finalresults> [Accessed 13 May 2021].

[853] Assets.publishing.service.gov.uk. 2020. *Workplace Pension Participation and Savings Trends of Eligible Employees Official Statistics: 2009 to 2019*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/806513/workplace-pension-participation-and-saving-trends-2009-2019.pdf> [Accessed 10 May 2021].

[854] Department for Work & Pensions (UK) (2021), 'Workplace pension participation and savings trends of eligible employees: 2009 to 2020'. Available at https://www.gov.uk/government/statistics/workplace-pension-participation-and-savings-trends-2009-to-2020/workplace-pension-participation-and-savings-trends-of-eligible-employees-2009-to-2020.

[855] Ibid.

[856] Ibid.

[857] Ibid.

[858] Ibid.

[859] Ibid.

[860] Ibid

[861] Ibid

[862] Ibid

tax year 2019/20 amongst non-eligible workers.[863] However, participation amongst the self-employed has declined overall during that period.[864]

Similarly, participation amongst eligible employees of all ethnic groups increased between 2012 and 2020, with the largest increase observed amongst eligible Pakistani and Bangladeshi workers whose participation rate rose from 36% in the period between 2011 and 2014 to 63% in the period between 2017 and 2020.[865] However, there remains a substantial difference in participation rates between eligible white workers and eligible Pakistani and Bangladeshi workers; in 2019/20, this difference stood at 20 percentage points.[866]

The annual amount saved, including from employee and employer contributions and through tax relief, by eligible employees across the public and private sectors was £105.9 billion in 2020. This is an increase of £5.5 billion relative to 2019, although within the public sector savings fell slightly between 2019 and 2020.[867]

In the public sector, the average amount saved by both male and female eligible savers has shown an increasing trend since 2012. In the private sector, average amounts saved by both male and female savers fell between 2012 and 2017, reflecting low minimum contribution rates as auto-enrolment was introduced.[868] The average amount saved by these workers increased from 2017 to 2019, likely because of increases in the minimum contribution rates under auto-enrolment;[869] the average amount saved by these workers then fell in 2020,[870] perhaps as a result of COVID-19.

The UK's net replacement rate, including State and automatic enrolment pensions with minimum contributions is 61% compared to an OECD average of 65.4%. Looking at the public pension alone, the UK replacement rate is just 28.4% compared to an OECD average of 57.6% and 58.6% for women and men respectively[871]. This 32.6 percentage point difference in the replacement rate offered by the public pension highlights the importance of automatic enrolment in the UK[872].

5.6.5. Description of factors that influenced the performance of the auto-enrolment scheme

During the roll-out of automatic-enrolment, the UK government launched several national awareness campaigns. The first awareness campaign, called the 'I'm in' campaign, ran from mid-September to mid-October 2012. This TV, press, radio and online advertising campaign was aimed at preventing staff from opting out of their workplace scheme once they had been automatically enrolled.[873]. In 2015, an additional campaign aimed at making smaller companies aware of their duties to automatically enrol workers into a pension scheme was launched[874]. The communication campaign used a microsite to provide clear information about automatic enrolment and was supported by social media, press, national advertising campaigns and a series of direct targeted communications. The direct communication included the pension regulator mailing-out automatic enrolment guides to over 1.4 million UK small businesses. The guides informed businesses of their staging date and automatic enrolment duties and encouraged them to nominate a point of contact. There was also an online step-by-step guide tailored to the needs of small employers along with radio and digital advertising.

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863 Ibid.

864 Ibid.

865 Ibid.

866 Ibid.

867 Ibid.

868 Ibid.

869 Ibid.

870 Ibid.

871 OECD. 2021. *Pensions - Net pension replacement rates - OECD Data*. [online] Available at: <https://data.oecd.org/pension/net-pension-replacement-rates.htm#indicator-chart> [Accessed 9 May 2021].

872 Greenwood, J., 2021. *UK pension replacement rate falls 9pc in a decade – OECD*. [online] corporate-adviser.com. Available at: <https://corporate-adviser.com/uk-pension-replacement-rate-falls-9pc-in-a-decade-oecd/> [Accessed 9 May 2021].

873 Cumbo, J., 2012. *Auto-enrolment campaign launched*. [online] Ft.com. Available at: <https://www.ft.com/content/e6b425cc-4694-11e1-89a8-00144feabdc0> [Accessed 9 May 2021].

874 Cipp.org.uk. 2021. *New auto enrolment ad campaign*. [online] Available at: <https://www.cipp.org.uk/resources/news/aeadcampaign.html> [Accessed 9 May 2021].

According to research carried out by GfK NOP, the advertising campaigns were successful at raising awareness amongst workers regarding automatic enrolment, workplace pensions, the need to save for later life, and that the State Pension will not cover basic living costs[875]. Increases in awareness of automatic enrolment were largely driven by TV advertising with press, radio and online advertising increasing the frequency of communication and supporting the messages communicated in the TV advertisements.[876]

Levels of awareness and understanding of automatic enrolment amongst employers is also high. In fact, according to the Pensions Regulator, at least 91% of micro, small and medium-sized employers were aware of their ongoing duty to enrol workers and re-enrol those who have opted out of their workplace pension scheme[877].

According to further research carried out by GfK NOP in March 2013, almost three-quarters (73%) of survey respondents thought that automatic enrolment was a good thing, including 46% who thought that it was definitely a good thing[878]. According to the Department for Work & Pensions, the public perception that automatic enrolment and workplace pension saving is a positive initiative increased to 79% in April 2019. Additionally, evidence from the 2018 British Social Attitudes survey suggests that 83% of employees agree with the survey statement that 'Overall, it is worthwhile for me to save into a workplace pension' and only 23% of employees agree with the survey statement that 'I have more important things to spend my money on than saving into a workplace pension' [879].

A contributing factor to the success of automatic enrolment in the UK was the political consensus regarding its implementation. The Pensions Commission, made up of just three members, had a positive reputation and was independent from Government, political parties and sectoral interest. According to Matthew Taylor who acted as Chief Adviser to the Prime Minister on Political Strategy 2005-07, the extensive media and stakeholder engagement contributed to the public legitimacy of the Pensions Commission. Major stakeholder groups including the trade union movement, the pensions industry and the broader business community agreed on the adoption of pension reforms. The acceptance amongst major stakeholders and Government meant that, despite the financial crisis which preceded automatic enrolment, the policy was still implemented[880].

5.6.6. Looking forward

Several proposed changes are being explored for automatic enrolment with regards earnings triggers, earnings bands, and contribution rates. However, it is unclear when future changes will be implemented. The Department for Work & Pensions continues to trial ways of encouraging the self-employed to save for retirement and is also identifying mechanisms to increase employee engagement with their workplace pension. As of April 2021, the wider pension system annual allowances have been frozen, the State Pension has increased by 2.5% and the State Pension age continues to rise.

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[875] Assets.publishing.service.gov.uk. 2013. *Pensions Portfolio: Communications tracking research*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/203895/pensions-later-life-communications-research-november-2012.pdf> [Accessed 9 May 2021].

[876] Assets.publishing.service.gov.uk. 2015. *Automatic Enrolment evaluation report 2015*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/477176/rr909-automatic-enrolment-evaluation-2015.pdf> [Accessed 9 May 2021].

[877] TPR. (2019). *Ongoing Duties Survey - Winter 2019*. [online] Available at: <https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/employer-automatic-enrolment-ongoing-duties-survey-winter2019.ashx> [Accessed 9 May 2021].

[878] Assets.publishing.service.gov.uk. 2013. *Pensions Portfolio: Communications tracking research March 2013*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/212045/pensions-later-life-communications-research-march-2013.pdf> [Accessed 9 May 2021].

[879] Assets.publishing.service.gov.uk. 2020. *Automatic Enrolment evaluation report 2019*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/883289/automatic-enrolment-evaluation-report-2019.pdf> [Accessed 9 May 2021].

[880] Massala, T. and Pearce, N., 2020. *Pension Reforms in the UK: 1997 to 2015*. [online] Bath.ac.uk. Available at: <https://www.bath.ac.uk/publications/pension-reforms-in-the-uk-1997-to-2015/attachments/pension-reforms-uk.pdf> [Accessed 10 May 2021].

Under law, the UK Secretary of State must review annually the earnings trigger and earnings bands on which automatic enrolment contributions are calculated[881]. The purpose of the review is to ensure that the Secretary of State can set appropriate levels for the qualifying earnings triggers, considering the economic climate at the time. The Secretary of State determined that the current earnings trigger of £10,000 is appropriate for tax year 2021/22[882]. While the earnings trigger is not changing, the increase in the national living wage (NLW) from £8.72 to £8.91 means that employees working 22 hours a week or more will meet the £10,000 minimum earnings threshold[883]. This freeze in the earnings trigger is estimated to result in an additional 8,000 employees being enrolled, 72% of which are female[884]. The current view of the Secretary of State is that voluntary opt-in provides the most appropriate option for those earning less than the earnings trigger who wish to save.

While the 2017 Review of Automatic Enrolment proposed the removal of the lower earnings limit in the mid-2020s, the lower earnings limit was not increased for tax year 2021/22 remaining at £6,240. The removal of the lower earnings limit is conditional on the affordability of increased contributions for beneficiaries and employers. The upper earnings limit increased from £50,000 in 2020/21 to £50,270 in 2021/22, an increase of 0.54%. The increase in the upper earnings limit is less than the 1.17% forecasted earnings growth in the 2021 review. Both the upper and lower earnings limits are consistent with the limits on National Insurance Contributions to provide consistency for employers, the pensions industry and payroll services[885].

The 2017 Government review of automatic enrolment highlighted that lowering the age limit for automatic enrolment from 22 to 18 was a key recommendation. The implementation of this proposed change, which would bring an additional 900,000 workers in the scope of automatic enrolment, was scheduled to take place in the mid-2020s, subject to consultation and the introduction of legislation. While no changes have been announced so far, the Government remains committed to implementing the review recommendation by the mid-2020s, with a further Pensions Bill to be expected before the next national elections[886].

The minimum contribution level remains at 8% for the 2021/22 tax year. Of this 8%, a minimum of 3% must be from the employer and 4% from the employee. According to the Pensions Commission, the minimum contribution rate had been set with the aim of ensuring that the median earner achieves an income replacement rate of at least 45%. In order to increase pension saving above the minimum, the Pensions Policy Institute recommended the use of auto-escalation as previous attempts at encouraging individuals to save more than the statutory minimum were unsuccessful[887].

The Department for Work & Pensions recognises that, under the current system, the self-employed are still at risk of under-saving for retirement. In a bid to encourage more retirement saving amongst the self-employed, the Department has started a programme of trialling various

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[881] NEST (2013), 'Looking after members' money – NEST's investment approach'. Available at https://www.Nestpensions.org.uk/schemeweb/NestWeb/includes/public/docs/Developing-and-delivering-NESTs-Investment-Approach%2CPDF.pdf.

[881] See UK country fiche.

[881] NEST, 'Nest's charges'. Available at https://www.Nestpensions.org.uk/schemeweb/Nest/aboutNest/Nest-charges.html.

[882] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

sed 7 May 2021].

[883] The minimum wage is the minimum salary per hour workers over the age of 16 are entitled to. The value of the minimum wage depends on the workers age and is currently £8.36 for those aged 21-22, £6.56 for those aged 18-20, £4.62 for those aged 16-17 and £4.30 for apprentices. The living wage is the statutory per hour pay workers must receive over the age of 23 and is £8.91 as of April 2021.

[884] GOV.UK. 2021. *Review of the automatic enrolment earnings trigger and qualifying earnings band for 2021/22: supporting analysis*. [online] Available at: <https://www.gov.uk/government/publications/automatic-enrolment-review-of-the-earnings-trigger-and-qualifying-earnings-band-for-202122/review-of-the-automatic-enrolment-earnings-trigger-and-qualifying-earnings-band-for-202122-supporting-analysis#fn:9> [Accessed 7 May 2021].

[885] GOV.UK. 2021. *Review of the automatic enrolment earnings trigger and qualifying earnings band for 2021/22: supporting analysis*. [online] Available at: <https://www.gov.uk/government/publications/automatic-enrolment-review-of-the-earnings-trigger-and-qualifying-earnings-band-for-202122/review-of-the-automatic-enrolment-earnings-trigger-and-qualifying-earnings-band-for-202122-supporting-analysis#fn:9> [Accessed 7 May 2021].

[886] Thurley, D., 2021. *Pensions: automatic enrolment - current issues*.

[887] Thurley, D., 2021. Pensions: automatic enrolment - current issues. *House of Commons Library*, CBP-06417.

intervention mechanisms with the aim of increasing long-term savings amongst the self-employed population currently not covered by automatic enrolment. These trials focus on different forms of messaging and savings options and are exploring behavioural 'nudges', such as the use of defaults in 'set and forget' mechanisms and the use of framing effects in communications, that could be introduced into existing systems and online platforms that the self-employed already use to manage their work and finances[888].

In their 2017 review, the Department for Work & Pensions noted that it wanted to increase the sense of personal ownership around workplace pensions to encourage individuals to save for the future. In order to increase the accessibility of personal information regarding pension savings and increase understanding and awareness of saving for retirement, the development of a pensions dashboard has been proposed. In 2020, the Government introduced legislation to support a pensions dashboard service which will enable individuals to access their pension information online[889]. The Government has asked the Money and Pensions Service to bring together a delivery group, with representatives from industry and consumer groups, to support the design and delivery of the infrastructure needed to support the dashboard's introduction.[890] A call for input on staging was released in May 2021, detailing proposals for the staged compulsory connection of pension providers to the pensions dashboard. The proposals have been developed in collaboration with the Department for Work & Pensions (DWP), the Financial Conduct Authority (FCA) and The Pensions Regulator[891].

The powers of the Pensions Regulator have increased in recent years, particularly with the introduction of legislation regarding master trust approval[892]. In the future, the Pensions Regulator may be provided with even greater supervisory powers. The Government is working with the regulator to ensure that the supervisory power of the regulator is commensurate to the current risks in the pension market and their potential impact on members including on confidence in pension saving.

In addition to contributions and capital gains being exempt from tax, the UK pension system has several allowances which provide limited tax benefits to pension savers. The Lifetime Allowance is the total amount of pension benefits one can build up during a lifetime across all pension schemes before an additional tax charge applies. For 2021/22 the lifetime allowance has been set at £1,073,100. The lifetime allowance will remain at this level until 2026 resulting in an annual decrease in the inflation-adjusted value of the lifetime allowance until 2026[893].

The annual allowance is the annual amount which can be contributed to a DC pension or benefits which can be accrued in a DB whilst receiving tax relief. The annual allowance is calculated across all pension plans and is capped at £40,000 with contributions above the annual allowance subject to income tax. Unused annual allowances can be brought forward from the previous three tax years. The Tapered Annual Allowance (TAA) mandates that individuals lose £1 of their annual allowance for every £2 of earnings above £240,000. This £240,000 threshold is markedly higher than the 2019/20 threshold of £150,000. The annual allowance is reduced to £4,000 for those with incomes over £312,000[894].

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[888] NEST Insight Unit. 2021. *Supporting self-employed people to save for retirement | NEST Insight Unit*. [online] Available at: <https://www.Nestinsight.org.uk/research-projects/self-employed-pension-saving/> [Accessed 9 May 2021].

[889] Pension Schemes Act 2021, Part 4 'Pensions dashboards', available at: https://www.legislation.gov.uk/ukpga/2021/1/contents/enacted/data.htm.

[890] Assets.publishing.service.gov.uk. 2020. *Automatic Enrolment evaluation report 2019*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/883289/automatic-enrolment-evaluation-report-2019.pdf> [Accessed 9 May 2021].

[891] Kyriazis, C., 2021. Timings for industry to connect with Pensions Dashboards Programme announced | Pensions Dashboards Programme. [online] Pensions Dashboards Programme. Available at: <https://www.pensionsdashboardsprogramme.org.uk/2021/05/13/timings-for-industry-to-connect-with-pdp-announced/> [Accessed 13 May 2021].

[892] Pension Schemes Act 2017, Section 1.

[893] GOV.UK. 2021. Setting the standard Lifetime Allowance from 2021 to 2022 to 2025 to 2026. [online] Available at: <https://www.gov.uk/government/publications/setting-the-standard-lifetime-allowance-from-2021-to-2022-to-2025-to-2026/setting-the-standard-lifetime-allowance-from-2021-to-2022-to-2025-to-2026> [Accessed 7 May 2021].

[894] Pensions Advisory Service. 2021. *The Annual Allowance - The Pensions Advisory Service*. [online] Available at: <https://www.pensionsadvisoryservice.org.uk/about-pensions/saving-into-a-pension/pensions-and-tax/the-annual-allowance> [Accessed 7 May 2021].

Those who have already started to access their pensions are subject to the Money Purchase Annual Allowance (MPAA) of £4,000. In general, individuals must be at least aged 55 before they can start accessing their pensions. The aim of the MPAA is to limit the ability for those aged 55 and over to make pension withdrawals and recycle those monies back into a pension plan in the form of pension contributions, securing double tax relief. Once the MPAA is triggered, i.e., an individual accesses their pension, it cannot be undone. Unlike the annual allowance, unused MPAA allowances cannot be brought forward from previous tax years. As a result of COVID, there was an increase in the number of individuals accessing their pension early. In fact, HMRC data released in January 2021 showed that £2.4bn was withdrawn from pensions in the last quarter of 2020, a 6% increase from £2.2bn in the same period in 2019[895]. The Association of British Insurers called for the MPAA not to apply when savers are accessing funds as a result of COVID. However, as of May 2021, the UK government has not changed the MPAA policy[896].

Lifetime Individual Savings Account (LISA) enables individuals to save up to £4,000 each tax year towards a first home or retirement, with a State top-up of 25%. Funds in a LISA are locked-in until an individual purchases their first home, reaches retirement or if the individual suffers from a terminal illness. Early withdrawals from a LISA are subject to a 25% fee. From Friday 6 March 2020 until 11:59pm Monday 5 April 2021 the withdrawal charge for LISAs was reduced from 25% to 20% to allow investors to withdraw funds during the COVID-19 pandemic[897].

The full benefits under the new State Pension rose by £4.40 to £179.60 per week in tax year 2021/22. To receive the State Pension, individuals must have paid or be credited with a minimum of 10 years of National Insurance contributions, and they receive the full State pension with 35 years of contributions[898]. The Basic State Pension which applies to men born before 6th April 1951, women born before 6th April 1953 or those who reached State Pension age before 6th April 2016 increased by 2.5% in 2021/22 to £137.60[899]. To receive the full Basic State Pension, individuals must have paid or be credited with 30 years of National Insurance contributions. The Basic State Pension will continue to increase each year by the highest of[900] the average percentage growth in wages (in Great Britain), the percentage growth in prices in the UK as measured by the Consumer Prices Index (CPI) or 2.5%.

The official retirement age is gradually being raised. It has increased to 66 for men and women since April 2020, then it will rise to 67 by 2028, with a further rise to 68 due between 2037 and 2039[901]. As the State Pension age is kept under review, it could change in the future depending on factors such as life expectancy[902].

On 22 September 2020, the Minister for Pensions and Financial Inclusion launched a cross-sector working group chaired and facilitated by the Department for Work & Pensions (DWP) to examine issues surrounding small, deferred pension pots. Small, deferred pension pots are a result of pension pots not following workers. When an individual starts a new job and meets automatic enrolment eligibility requirements, pension contributions will be paid to a pension provider chosen

[895] Austin, A., 2021. *Call to scrap MPAA as pension withdrawals hit £2.4bn*. [online] Ftadviser.com. Available at: <https://www.ftadviser.com/pensions/2021/01/29/call-to-scrap-mpaa-as-pension-withdrawals-hit-2-4bn/> [Accessed 9 May 2021].

[896] Abi.org.uk. 2021. *Scrap the Money Purchase Annual Allowance to help financial resilience ABI*. [online] Available at: <https://www.abi.org.uk/news/news-articles/2021/02/scrap-the-money-purchase-annual-allowance-to-help-financial-resilience/> [Accessed 10 May 2021].

[897] GOV.UK. 2021. *Lifetime ISA withdrawal charge reduced to 20%*. [online] Available at: <https://www.gov.uk/guidance/lifetime-isa-withdrawal-charge-reduced-to-20#:~:text=To%20help%20investors%20withdraw%20funds,59pm%20Monday%205%20April%202021.> [Accessed 7 May 2021].

[898] GOV.UK. 2021. *The new State Pension*. [online] Available at: <https://www.gov.uk/new-state-pension> [Accessed 7 May 2021].

[899] GOV.UK. 2021. *Benefit and pension rates 2021 to 2022*. [online] Available at: <https://www.gov.uk/government/publications/benefit-and-pension-rates-2021-to-2022/benefit-and-pension-rates-2021-to-2022> [Accessed 7 May 2021].

[900] GOV.UK. 2021. *The basic State Pension*. [online] Available at: <https://www.gov.uk/state-pension> [Accessed 7 May 2021].

[901] Pensions Act 2014, Section 27, available at: https://www.legislation.gov.uk/ukpga/2014/19/section/27; GOV.UK. 2017. *Proposed new timetable for State Pension age increases*. [online] Available at: <https://www.gov.uk/government/news/proposed-new-timetable-for-state-pension-age-increases> [Accessed 9 May 2021].

[902] Age UK. 2021. *Changes to State Pension age*. [online] Available at: <https://www.ageuk.org.uk/information-advice/money-legal/pensions/state-pension/changes-to-state-pension-age/#:~:text=State%20Pension%20age%20is%20gradually,as%20changes%20in%20life%20expectancy.> [Accessed 9 May 2021].

by that employer. When individuals leave their place of employment and start a new job, a new pension pot is established, and their previous pension pot remains dormant.

The fragmentation of pension savings introduces several risks for beneficiaries such as the erosion of small pot value due to charges, losing track of pension savings and increased complexities of planning for retirement. Additionally, these small pots are uneconomical for providers to manage as they result in a duplication of administrative tasks and resources. The Pensions Policy Institute (PPI) estimates that, without intervention the number of deferred pension pots in master trust schemes could increase from 8 million to as much as 27 million by 2035[903].

In order to tackle the small pots issue, a number of policy changes have been implemented. The Department of Work & Pensions indicated that action on 'charging out' is a priority as part of its response to the 2020 Charges Review. Charging out is the application of a minimum threshold value (currently £100) which the pot has to reach before flat member charges are incurred.

In the 2020 Small Pots Working Group Report, the Minister for Pensions and Financial Inclusion noted that *'Everyone accepts that automatic enrolment has been a success, but issues remain that we want to address in the near future. The growth in the number of deferred small pots and the impact on the consumer is an issue that we are determined to address.'* The report notes that consolidation of deferred small pots in the automatic enrolment market is important for scheme members to realise the best possible pension outcomes. Small pots inhibit the establishment of an efficient, competitive, and transparent workplace pensions system. The working group recommended that over the medium term, the government and the pensions industry should make the consolidation of deferred, defined contribution small pots the norm within the automatic enrolment workplace pensions market. The consolidation of these pots will create a large administrative challenge and will need to facilitate low-cost mass transfers within the AE workplace pensions market (see section 4.4.5 for a discussion of measures to avoid the proliferation of small, deferred pots). As mentioned by Darren Philp of Smart Pension, a master trust provider, *'One of the biggest lessons from AE was the importance of looking at the "plumbing" of the pensions system, and, in hindsight, the important role that technology can play in reducing friction'.*

Employees who earn between £10,000 and £12,570 per annum will not get any tax relief on their pensions if their employer operates a net pay arrangement. This is because under the net pay arrangement, the full amount of the pension contribution is taken before tax is deducted. Individuals earning below the personal allowance of £12,570 will pay no tax and thus have no tax relief on pension contributions.[904] Under a relief at source arrangement, the same individuals would get a 20% tax refund. The Government recognises issues caused by tax relief arrangements and has issued a call for evidence to identify improvements that could be made to the current system[905].

At the time of writing, Nest Insight[906] – in partnership with several other organisations – is conducting a sidecar savings trial in which the architecture of the auto-enrolment scheme is used to support participating savers in building emergency savings. Many in the UK have low levels of financial resilience, with 26% of working-age adults having no savings and only a minority (44%) of working-age adults having at least £500 in savings.[907] In the trial, savers who sign up set a target level of emergency savings and a contribution rate; editable defaults are in place. The saver then sets up an emergency savings account. The saver's contributions are taken through payroll deductions; the contributions are paid into the emergency savings account until the saver's target savings level is reached, after which point they are automatically redirected to the saver's pension

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[903] Pensionspolicyinstitute.org.uk. 2021. *Policy options for tackling the growing number of deferred members with small pots*. [online] Available at: <https://www.pensionspolicyinstitute.org.uk/media/3545/20200723-deferred-members-final-report-for-the-website.pdf> [Accessed 7 May 2021].

[904] Moneyadviceservice.org.uk. 2021. *Tax relief and your workplace pension scheme*. [online] Available at: <https://www.moneyadviceservice.org.uk/en/articles/tax-relief-and-your-workplace-pension> [Accessed 10 May 2021].

[905] Assets.publishing.service.gov.uk. 2020. *Pensions tax relief administration: Call for Evidence*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/902338/Pensions_tax_relief_administration_CfE_docx.pdf> [Accessed 10 May 2021].

[906] Nest Insight is Nest's research unit.

[907] Nest Insight (2020), 'Supporting emergency saving : Briefing paper 2 – early learnings from the employer experience'. Available at https://www.Nestinsight.org.uk/wp-content/uploads/2020/12/Supporting-emergency-saving-early-learnings-from-the-employer-experience.pdf.

account in addition to existing auto-enrolment contributions. Savers can access the funds in the emergency savings account at any point; when the amount of money in the emergency account falls below the saver's target level, contributions are redirected to that account.[908] Emerging findings from the trial are generally positive. There is evidence that the sidecar savings tool has increased savings amongst employees with low levels of financial resilience and that saving through the sidecar mechanism is persistent, with only 2% of accounts having been closed.[909] However, take-up of sidecar saving has been low, despite large numbers of employees viewing the idea of the sidecar savings tool as valuable; 98% of those who say that they think the sidecar savings tool would help them have not signed up.[910] To date, participants in the trial have had the option of voluntarily saving in the sidecar on an opt-in basis. A trial for a design in which saving in the sidecar account is the default (such that those participants who do not wish to save in the sidecar will have to actively opt out from doing so) is planned.[911]

5.6.7. Lessons learned

As mentioned above, automatic enrolment has been viewed as a success in the UK. The mechanism has been particularly successful in enrolling the lower income groups it was targeting. Indeed, participation rates of those earning between £10,000 and £20,000 increased from 34 percent in 2012 to 80% in 2019.

- **Consensus -** an important element of the UK's positive experience of auto-enrolment was the establishment of consensus and the development of an evidence base to establish the need for auto-enrolment.
- **Implementation -** According to experts, the gradual implementation of automatic enrolment was seen as a success. Staging allowed for the system to be tested on large employers before smaller employers were in the system. Additionally, the gradual increase of contributions reduced the financial impact of automatic enrolment on both employers and employees[912].
- **Awareness -** Advertising campaigns increased awareness of automatic enrolment for employers and the general public. The successful advertising campaign resulted in automatic enrolment being viewed in a positive light by the general public and also increased awareness of the system's obligations on employers[913].
- **The impact of AE on the supply side** – Auto-enrolment stimulated changes in the supply side of the fund market. Master trusts existed prior to the introduction of auto-enrolment, but their use expanded significantly after the introduction of auto-enrolment. Auto-enrolment also stimulated market entry by new types of entrants. In response to such developments, from 2019, all master trusts have had to be authorised by The Pensions Regulator; this saw 53 out of 81 schemes exiting the market.[914]
- **Nest -** According to experts, the National Employment Savings Trust (Nest) was a key part of the success of automatic enrolment. Nest served as a benchmark within the market, and its low-cost mandate meant that it drove competition on costs and charges below the charge cap. The establishment of Nest ensured that those workers unprofitable to retail financial services providers such as the self-employed and those with low to average earnings could enrol in a pension plan[915]. According to the World Bank, Nest is successful in

[908] Ibid.

[909] Nest Insight (2021), 'Encouraging early indications from sidecar trial show financially 'struggling' and 'squeezed' brought into saving'. 8th July 2021. Available at https://www.Nestinsight.org.uk/encouraging-early-indications-from-sidecar-trial/.

[910] Ibid.

[911] Nest Insight (2021), 'BlackRock and the Money and Pensions Service expand support for Nest Insight, enabling 'opt-out' payroll saving research programme'. 29th July 2021. Available at https://www.Nestinsight.org.uk/opt-out-payroll-saving-research-announcement/.

[912] Pensionspolicyinstitute.org.uk. 2020. *Automatic enrolment: a success worth building on*. [online] Available at: <https://www.pensionspolicyinstitute.org.uk/media/3449/202005-bn117-ae-a-success-worth-building-on.pdf> [Accessed 9 May 2021].

[913] Pensionspolicyinstitute.org.uk. 2020. *Automatic enrolment: a success worth building on*. [online] Available at: <https://www.pensionspolicyinstitute.org.uk/media/3449/202005-bn117-ae-a-success-worth-building-on.pdf> [Accessed 9 May 2021].

[914] Austin, A. (2019). Final tally on master trusts as authorisations complete. [online] Ftadviser.com. Available at: <https://www.ftadviser.com/pensions/2019/11/06/final-tally-on-master-trusts-as-authorisations-complete/> [Accessed 10 May 2021].

[915] Thurley, D., 2021. *Pensions: automatic enrolment - current issues*.

that it has the capacity to act under an arm's length principal but as a government agency it has high standards of governance[916].

- **Fees -** Automatic enrolment highlighted the differences in fees between different DC schemes. Those in a high charging scheme would have their pension savings reduced significantly. In 2015, the Government introduced a 0.75% charge cap (excluding transaction costs) on default strategies used for automatic enrolment. The *Pension charges survey 2020: charges in defined contribution pension schemes* report notes that fees are significantly below the 0.75% fee cap imposed on automatic enrolment qualifying plans. Moreover, fees on non-qualifying schemes i.e., schemes outside of the automatic enrolment remit, have fallen too from 0.92% in 2015 to 0.53%[917]. The 2015 regulations also introduced a requirement that occupational pension schemes need to report transaction costs[918].
- **Engagement** - While participation in automatic enrolment has increased from 55% in 2012 to 88% in 2019, contribution rates remain low[919]. Some stakeholders have suggested that the UK system has in fact been too successful and is causing people to neglect their personal responsibility and engagement with respect to pension saving. Moreover, there is a risk that people think they are saving enough by just being auto enrolled when the reality is that 8% contributions might not be enough. In fact, workers who did not opt-out, gave little time to consider their decision. Workers who remained in the system often described it as an easy decision since they were getting 'free money' in the form of employer contributions. Additionally, despite workers often stating that they wanted to save more for retirement, few are contributing more than the statutory minimum rate[920].
- **Earnings triggers** - The UK automatic enrolment mechanism has an earnings trigger of £10,000 per annum assessed at each place of employment. As such, those who hold multiple low paid jobs are often excluded from automatic enrolment even if, in aggregate, they earn over £10,000 per annum. As automatic enrolment is a workplace pension, those who take time away from work to, for example, care for children, do not accrue pension savings. This as well as the earnings trigger disproportionately affects women[921].
- **Decumulation** - While inertia underpins the increase in pension saving in the accumulation phase, this can cause problems when beneficiaries reach the decumulation phase. Those saving for retirement will be forced to make complex decisions regarding how they will access their savings as they approach retirement. The method by which savings are accessed can have a significant impact on retirement outcomes[922]. Prior to 2015, people with DC savings above a minimum threshold were required to use some of the savings to purchase a retirement income product such as an annuity or capped drawdown. A retirement income product protects savers against investment and longevity risks. While a drawdown product allows beneficiaries to access their savings, managing withdrawals from pension savings requires expertise. Additionally, as women live on average 3.7 years longer than men, women would need to have saved between 5 and 7% more than men by

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[916] P. Rudolph, H., 2019. *Pension Funds with Automatic Enrollment Schemes Lessons for Emerging Economies*. [online] Documents1.worldbank.org. Available at: <http://documents1.worldbank.org/curated/en/368081549376313709/pdf/WPS8726.pdf> [Accessed 10 May 2021].

[917] GOV.UK. 2021. *Pension charges survey 2020: charges in defined contribution pension schemes*. [online] Available at: <https://www.gov.uk/government/publications/pension-charges-survey-2020-charges-in-defined-contribution-pension-schemes/pension-charges-survey-2020-charges-in-defined-contribution-pension-schemes> [Accessed 7 May 2021].

[918] The Occupational Pension Schemes (Charges and Governance) Regulations 2015, available at: https://www.legislation.gov.uk/uksi/2015/879/contents/made; Ftadviser.com. 2016. *Transaction costs – good value and where to find it*. [online] Available at: <https://www.ftadviser.com/pensions/2016/12/08/transaction-costs-good-value-and-where-to-find-it/> [Accessed 10 May 2021].

[919] Assets.publishing.service.gov.uk. 2020. *Workplace Pension Participation and Savings Trends of Eligible Employees Official Statistics: 2009 to 2019*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/892841/workplace-pension-participation-and-saving-trends-2009-2019.pdf> [Accessed 9 May 2021].

[920] GOV.UK. 2020. *Summary of final report: Automatic enrolment: qualitative research with newborn employers*. [online] Available at: <https://www.gov.uk/government/publications/automatic-enrolment-qualitative-research-with-new-employers/summary-automatic-enrolment-qualitative-research-with-newborn-employers-final-report> [Accessed 9 May 2021].

[921] Pensionspolicyinstitute.org.uk. 2019. *Understanding the Gender Pensions Gap*. [online] Available at: <https://www.pensionspolicyinstitute.org.uk/media/3227/20190711-understanding-the-gender-pensions-gap.pdf> [Accessed 9 May 2021].

[922] Pensionspolicyinstitute.org.uk. 2020. *Automatic enrolment: a success worth building on*. [online] Available at: <https://www.pensionspolicyinstitute.org.uk/media/3449/202005-bn117-ae-a-success-worth-building-on.pdf> [Accessed 9 May 2021].

retirement age. Similar to the EU, gender discrimination in annuity rates is banned in the UK, making the purchase of an annuity particularly valuable for women[923]. In their 2020 report, the Pensions and Lifetime Savings Association (PLSA) recommended the establishment of a new regulatory framework to help beneficiaries with the decumulation portion of their pension. The proposed framework calls for schemes to support their members in their at-retirement and decumulation decisions through member engagement communications, offering decumulation products[924]. The aim of a more guided decision for decumulation is to bridge the gap between inertia, relied on to include people in the pension system, and the complex decision they have to make at retirement. As the presence of DB pensions decreases and the dependency on DC pensions increases, the importance of decumulation decisions becomes more important. PLSA calls for the use of nudges to signpost the saver into a preferred solution either inside or outside of the scheme, the aim being to remove the risk of the poorest outcomes[925].

These 'lessons learned' reflect LE Europe's judgement based on the findings from the literature that are described above.

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[923] Pensionspolicyinstitute.org.uk. 2021. *Understanding the Gender Pensions Gap*. [online] Available at: <https://www.pensionspolicyinstitute.org.uk/media/3226/201907-understanding-the-gender-pensions-gap-executive-summ_.pdf> [Accessed 9 May 2021].

[924] Plsa.co.uk. 2020. *DC DECUMULATION: EVOLVING THE PENSION FREEDOMS - FINAL RECOMMENDATIONS*. [online] Available at: <https://www.plsa.co.uk/Portals/0/Documents/Policy-Documents/2020/DC-Decumulation-Final-Recommendations-Oct-2020.pdf> [Accessed 9 May 2021].

[925] Plsa.co.uk. 2020. *DC DECUMULATION: EVOLVING THE PENSION FREEDOMS - FINAL RECOMMENDATIONS*. [online] Available at: <https://www.plsa.co.uk/Portals/0/Documents/Policy-Documents/2020/DC-Decumulation-Final-Recommendations-Oct-2020.pdf> [Accessed 9 May 2021].

6. EMPIRICAL ANALYSIS

This chapter presents empirical findings that examine the impact of auto-enrolment (AE) pension schemes on the ability to improve pension adequacy using factors such as participation and contributions to such schemes as well as contributions to personal pension schemes.

Before presenting the econometric analyses used to estimate the impact of AE on such factors, a summary of findings from existing empirical studies is presented in section 6.1. In Annex 5, a k-means cluster analysis is used to determine whether there are clusters of countries with certain similarities (within clusters) and differences (across clusters) for a given set of key pensions indicators. This provides initial insights on the relative performance of AE against alternative policy approaches and across countries with and without AE pension schemes.

6.1. Findings from existing empirical studies

Table 6 below summarises existing empirical evidence in relation to participation in and contributions to auto-enrolment schemes. It covers evidence from a range of schemes and countries.

Table 6 Summary of existing empirical evidence on participation in and contributions to auto-enrolment schemes

Study or Report	Country	Scheme examined	Participation and contributions effects identified	Comments
Madrian, B.C. and Shea, D.F. (2001), 'The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior', *The Quarterly Journal of Economics*, Vol. 116, No. 4 (Nov. 2001), pp. 1149-1187).	United States	Automatic enrolment of new hires in a 401(k) plan in a large US healthcare firm.	Participation in the firm's 401(k) plan rose by 48 percentage points amongst newly-hired employees (who were the target population of auto-enrolment in this scheme) in the fifteen months following the introduction of auto-enrolment; participation overall increased by 11 percentage points in that time. Adjusting for controls, automatic enrolment was found to reduce the contribution rate by 2.2 percentage points. The default contribution rate was found to be an important influence on the contribution rates chosen by savers.	At the same time that auto-enrolment was introduced, a requirement that employees had to have one year of service to be eligible for the 401(k) plan in question was removed (though it remained the case that employer matching contributions was only available to those with at least a year of service).
Choi, J. et al. (2004), 'For better or worse: Default effects and 401(k) savings behavior', in Perspectives on the Economics of Aging, National Bureau of Economic Research.	United States	Automatic enrolment in 401(k) plans in three large US companies.	Auto-enrolment was found to have a large initial effect that decayed over time. In one company, in which auto-enrolment applied only to new hires, after 48 months participation in the 401(k) plan was 28 percentage points higher for those hired after auto-enrolment began than for those hired before. In another of the companies, in which auto-enrolment also applied only to new hires, the effect of auto-enrolment after 27 months was 33 percentage points. In all three of the companies studied, the modal employee contribution rate for those hired before auto-enrolment was 6% (the contribution rate that maximised employer matching contributions), while the modal employee contribution rate for those hired under auto-enrolment was lower, being the default contribution rate (2% in one of the companies and 3% in the other two companies).	In two of the companies studied, auto-enrolment applied only to new hires.
COVIP, 'Relazione per l'anno 2019'. Available at https://www.covip.it/sites/default/files/relazioneannuale/1592977485covipra2019.pdf.	Italy	Nation-wide mandatory access provision auto-enrolment of all private sector employees in January 2007 and first-time private sector employees thereafter, involving the redirection of contributions to the *TFR*.	Between the scheme's introduction in 2007 and end-2019, 307,800 people (approximately 2-3% of the private sector employees in Italy and approximately 1.2% of the total labour force) were auto-enrolled through this scheme.	Coverage of and contributions to occupational pensions in Italy has increased by much more than 307,800 since the auto-enrolment mechanism's introduction. Between the mechanism's introduction in 2007 and the end of 2019, the coverage of occupational and personal pension plans rose from around 20% to around

Study or Report	Country	Scheme examined	Participation and contributions effects identified	Comments
				31.4% of the workforce. The scheme encouraged employees to make an active choice about whether or not to contribute to a pension fund. See Italy country case study.
Financial Markets Authority (New Zealand) (2020), 'KiwiSaver Annual Report 2020'. Available at https://www.fma.govt.nz/assets/Reports/Kiwisaver-Annual-Report-2020.pdf.	New Zealand	KiwiSaver – a nation-wide mandatory access provision auto-enrolment scheme for new employees aged 18 to 64.	Total assets under management in KiwiSaver were NZD 61.9 billion as of 31st March 2020; the number of contributing members stood at 1,812,291 (equivalent to approximately 65% of New Zealand's workforce).	The majority of KiwiSaver members opted in voluntarily rather than being auto-enrolled.
Krzykowski, K. (2021), 'PPK – how many people have signed up? Is it worth it? What are the benefits? Summary of the Pension Institute', Polish News. Available at https://www.polishnews.co.uk/ppk-how-many-people-have-signed-up-is-it-worth-it-what-are-the-benefits-summary-of-the-pension-institute/.	Poland	Employee capital plans (PPKs) – a nation-wide mandatory access provision auto-enrolment scheme for all employees aged under 55.	As of the first quarter of 2021, 24% of employees who were in the scope of the scheme were participating.	Poland's auto-enrolment scheme had not yet finished at the time this statistic referred to; micro-employers and the public sector were still yet to come into scope.
Cribb, J. and Emmerson, C. (2016), 'What happens when employers are obliged to nudge? Automatic enrolment and pension saving in the UK', *IFS Working Paper W16/19*, Institute for Fiscal Studies. Available at https://www.ifs.org.uk/uploads/wp1619.pdf.	United Kingdom	Nation-wide mandatory access provision auto-enrolment in the UK; the analysis considers only the effect on the private sector, although auto-enrolment did apply also to the public sector.	The introduction of auto-enrolment was found to have increased the probability of participation in a workplace pension scheme by 37 percentage points. Auto-enrolment increased pension saving by eligible private sector employees by £2.3 billion per year by the end of the period studied. Auto-enrolment had spillover effects on pension saving amongst non-eligible employees, meaning total increase in pension saving by private sector employees was approximately £2.5 billion per year by the end of the period studied.	The staged roll-out of auto-enrolment in the UK had not yet finished during the period of time considered in this study (as the study's authors note). Hence, the total impact of auto-enrolment on private pension saving is likely to be greater than the impact identified here, and the effect on participation may differ.
The Pensions Regulator (UK) (2019), 'Automatic enrolment: Commentary and analysis: April 2018-March 2019'. Available at https://www.thepensionsregula	United Kingdom	Nation-wide mandatory access provision auto-enrolment in the UK.	Amongst all eligible employees, participation in workplace pensions rose by 32 percentage points to 87% between 2012, when auto-enrolment began to be introduced, and 2018, when its roll-out finished. In the same period, participation in workplace pension participation amongst private sector	This report was the first of The Pensions Regulator's annual commentary and analysis reports on auto-enrolment in the UK with information on the period after the staged roll-out

Study or Report	Country	Scheme examined	Participation and contributions effects identified	Comments
tor.gov.uk/-/media/thepensionsregulator/files/import/pdf/automatic-enrolment-commentary-analysis-2019.ashx.			employees rose by 43 participation points to 75%. Public sector participation grew by five percentage points between 2012 and 2018 to 93%, reflecting high participation prior to the introduction of auto-enrolment. Workplace pension saving amongst eligible employees grew in value by 23 percentage points between 2012 and 2018, from £73.6 billion to £90.4 billion.	of auto-enrolment was concluded.
Center for Retirement Research at Boston College (2020), 'Facts about CalSavers'. September 2020. Available at https://crr.bc.edu/wp-content/uploads/2020/09/California_for-web_Sept-2020.pdf.	United States (California)	CalSavers – an auto-enrolment scheme in the state of California; access provision is mandatory for employers with at least five employees and no existing pension plan(s).	As of 30th June 2020, 555 employers had established systems for deducting CalSavers contributions from salaries. 15,120 employees held assets in CalSavers. The opt-out rate to that point had been less than one-third. The total value of the assets in the scheme was US$5.2 million.	CalSavers is being introduced in a staged manner, beginning in January 2019 and ending in June 2022. One would expect membership and saving in the scheme to grow as the scheme's rollout continues.
Chalmers, J., Mitchell, O.S., Reuter, J. And Zhong, M. (2021), 'Auto-Enrollment Retirement Plans for the People: Choices and Outcomes in OregonSaves', *NBER Working Paper 28469*, National Bureau of Economic Research. Available at https://www.nber.org/system/files/working_papers/w28469/w28469.pdf.	United States (Oregon)	OregonSaves – an auto-enrolment scheme in the state of Oregon; access provision is mandatory for private-sector employers without an occupational pension scheme already in place.	OregonSaves achieved a participation rate of 34.3% - 62.4% by April 2020. The 34.3% participation rate expresses participation as a percentage of employees ever registered in the OregonSaves system employed by emplyoers who had processed payrolls; the 62.4% figure expresses participation as a percentage of active, eligible employees employed by employers who had already processed contributions. Through OregonSaves, US$51 million of capital was accumulated by 67,700 employees up to April 2020.	The study's authors suggest that the contribution rates estimated in this paper are significantly lower than the participation rates estimated by previous studies on other US auto-enrolment programmes (see above) are a reflection of the fact that the target population of OregonSaves disproportionately includes low-income workers whose participation rates would be very low in the counterfactual scenario where OregonSaves did not exist.

6.2. Impact of AE on participation in and contributions to occupational pension schemes

This strand of the analysis investigates the relationship between the adoption of AE schemes and occupational pension scheme outcomes through a country-level empirical analysis (with 18 EU countries, plus Iceland, Norway and the UK). The first outcome of interest – contributions per active member – is found to be negatively associated with the adoption of AE. This could be explained through a composition effect – whereby members of AE schemes may have lower incomes, on average, and therefore contribute less – or a design effect – whereby default AE contribution rates are initially set low in order to minimize opt-out. The second outcome of interest - the number of active members of occupational pension schemes (as a percentage of the working population) - is found to be positively associated with the adoption of AE. It should be noted that, due to data availability, the identification of the effect of AE is based on relatively low variability of AE adoption across time and countries (only Italy and the UK had adopted AE during the reference period of the analysis). Results should therefore be treated with caution.

6.2.1. Approach

To assess the cross-country performance of auto-enrolment schemes, a panel-data econometric framework is used with country-level data for selected countries (covering EU Member States and non-EU countries). The two performance metrics or outcomes of interest are:

- Contributions[926] per active member
- Active members of occupational pension schemes as a percentage of the working population

The introduction of an auto-enrolment pension scheme is expected to increase participation in occupational pension saving, since all the auto-enrolment schemes in the sample are occupational rather than personal in nature. However, the impact on contributions to a pension scheme is ambiguous. Average contributions may increase if many employees are defaulted in at a higher level of contribution or actively choose to contribute more than the legal minimum required under the auto-enrolment scheme. On the other hand, as auto-enrolment pension schemes typically see contribution rates at lower levels than other defined contribution pensions, the influx of new pension savers, resulting from the introduction of the auto-enrolment scheme, is expected to lower average contribution rates.

More formally, the model equation can be represented as follows:

(1) $y_{it} = \alpha + \beta_1 autoenrol_{it} + \beta_2 other_{it} + \delta X_{it} + \theta_i + \varepsilon_{it},$ where:

- y_{it} is one of the outcomes of interest.
- $autoenrol_{it}$ is a dummy variable taking the value of 1 if country *i* has an auto-enrolment pension scheme at time *t*.
- $other_{it}$ is a vector of dummy variables taking the value of 1 if country *i* has an alternative policy approach for occupational pension schemes at time *t*. In practice,this includes mandatory occupational only, as a dummy for voluntary occupational pension schemes would be perfectly collinear with the AE and mandatory occupational scheme dummies.
- X is a set of macro-characteristics relating to country *i*.
- β_1, β_2 and δ are a set of coefficients.
- θ_i are country fixed effects.
- ε_{it} is the error term.

[926] Gross contributions receivable minus reinsurance contributions ceded

With cross-country data over many years, a fixed-effects estimation would enable the model to capture observed and unobserved country factors that are constant over time such as cultural factors, the age structure or income distribution. Following the estimation of baseline models, robustness checks are performed to assess the stability of the preferred model specification.

6.2.2. Data

The analysis uses country-level data sourced from EIOPA, Eurostat, AMECO and the OECD. The data for the dependent variable in each model was sourced from EIOPA. The EIOPA data covers occupational pension schemes only but has the advantage of having a consistent and comparable time series across countries. Eurostat, AMECO and the OECD were the threesources for data on the macro-characteristics that may also explain the variation in the outcomes of interest.

The estimation is run on annual observations between 2004 and 2018 across 18 EU Member States,[927] plus Iceland, Norway, and the United Kingdom. In the case of Italy, there is a structural break in the number of active members over the period. Due to a change in reporting, the contributions data suffer from double counting before 2016; therefore, the pre-2016 observations are excluded for Italy. As a robustness check, the preferred model will be estimated without Italian data.

The automatic enrolment variable (*autoenrol*) is a dummy which takes a value of 1 when automatic enrolment is present and zero otherwise. There are two countries with automatic enrolment schemes over the period considered in this estimation, namely, the UK and Italy. Interestingly, the estimation period covers the UK before and after the introduction of automatic enrolment.

Alternative policy approaches to occupational pension schemes are also captured using a dummy variable which takes a value of 1 when the alternative policy approach is present and zero otherwise. More specifically, the following alternative mechanisms for pension savings are considered:

- Mandatory/quasi-mandatory occupational pension schemes (e.g. Denmark, the Netherlands);
- Voluntary occupational pension schemes (e.g. Spain).

In each case, the alternative scheme type associated with these countries in the model is the largest scheme type in that country (for instance, Finland has both mandatory/quasi-mandatory occupational and voluntary schemes; the mandatory/quasi-mandatory scheme is larger in terms of coverage and so Finland is treated as a mandatory/quasi-mandatory scheme country).

A number of macroeconomic control variables are also included in the model specification to explain any of the variation in the two outcomes of interest (over time and across countries) that is not captured by the pension scheme dummy variables. These include:

- Old age benefits as a percentage of GDP[928] may display a negative relationship with the outcomes, as a more generous public pension system reduces the need for people to create an additional stream of future income through an occupational pension plan
- Household savings rate[929] may be positively associated with the outcomes, as a higher savings rate implies that a greater fraction of people's gross income is set aside for future rather than current consumption. This could be in the form of a pension plan (although not necessarily)
- The employment rate captures the health of the labour market. The direction of the relationship between the employment rate and the outcomes is not clear *ex ante*, as higher employment can increase both the numerator of the outcomes (respectively

[927] Austria, Belgium, Bulgaria, Croatia, Denmark, Finland, Germany, Greece, Italy, Latvia, Luxembourg, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, and Sweden.

[928] Old age benefits are the total annual benefits retirees can expect to receive in their respective country. This includes the old age pension, anticipated old age pension, partial pension, disability pension, early retirement benefits due to reduced capacity to work or labour market reasons and survivors' pension. The variable accounts for both means-tested and non-means-tested benefits.

[929] This is the gross household savings rate, defined as gross savings divided by gross disposable income.

contributions and active members of occupational pension schemes), as well as their denominators (respectively active members, and working population);

- GDP per capita in PPP terms captures living standards and may be positively related to the outcomes
- The short- and long-term nominal interest rates are intended to capture the return from alternative investments, and may therefore be negatively related to the outcomes
- The inflation rate. Since pension funds may protect against inflation, higher inflation could be associated with higher participation and contributions. However, inflation in Europe during the reference period was typically low, so it is possible that no strong relationship will be estimated

6.2.3. Results

6.2.3.1. Contributions per active member

To account for the cross-country differences in the value of contributions, this latter variable is deflated using the Harmonised Indices of Consumer Prices (HICP) and then scaled by the Purchasing Power Standards (PPS) to allow for comparability across countries. PPS is expressed in relation to the EU-28 set to equal 100. Both the indices for HICP and PPS are based to 2015=100 for the purposes of this estimation.

Table 7 shows the estimation results for the regression model explaining differences in contributions per member (adjusted for HICP and PPS) with automatic enrolment (AE), alternative policy approaches and a set of macro-characteristics as explanatory variables.

Table 7 Econometric results - Dependent variable = Contributions per active member

Variables	Model 1 (Pooled OLS)	Model 2 (Pooled OLS)	Model 3 (Fixed effects)	Model 4 (Fixed effects)
Automatic enrolment	-613.7 (0.737)	138.5 (0.918)	-3,746*** (0.0000001)	-3,797*** (0.00001)
Mandatory		1,694 (0.397)		865.7 (0.171)
Old age benefits as a percentage of GDP	456.3 (0.295)	451.4 (0.288)	-140.5 (0.575)	-155.1 (0.542)
Household savings rate	-289.6 (0.225)	-230.4 (0.201)	-220.9 (0.370)	-219.5 (0.377)
Employment rate	259.4** (0.0483)	192.6* (0.0772)	390.2 (0.262)	402.9 (0.251)
Nominal short-term interest rate	532.6 (0.205)	511.5 (0.201)	288.2 (0.381)	285.2 (0.388)
Nominal long-term interest rate	69.62 (0.817)	75.40 (0.794)	173.4 (0.378)	172.2 (0.378)
Inflation rate	-116.4 (0.454)	-54.90 (0.761)	-235.8 (0.171)	-250.1 (0.168)
GDP per capita in PPP	7,306*** (0.00493)	6,886*** (0.00209)	-9,347 (0.296)	-9,794 (0.281)
Constant	-91,997*** (0.00728)	-84,165*** (0.00213)	75,351 (0.288)	78,936 (0.274)
Observations	209	209	209	209
Number of countries	21	21	21	21
R-squared	0.327	0.339	0.709	0.710
Adjusted R-squared	0.300	0.309	0.664	0.663

Note: Standard errors are clustered at country level. *** p<0.01, ** p<0.05, * p<0.1

The first model uses the AE dummy variable along with macroeconomic control variables to explain variation in the level of contributions per member. In this model, the dummy variable representing

AE schemes has a negative but statistically insignificant coefficient (i.e., the null hypothesis that the coefficients estimating the impact of each mechanism on contributions is different from zero cannot be rejected).

A higher employment rate,and GDP per capita (in PPP terms) are associated with higher average contributions per active member and these coefficients are statistically significant at the 5% significance level in the case of the employment rate, and at the 1% level in the case of GDP per capita.

In addition to macroeconomic variables, model 2 controls for the use of policy approaches to occupational schemes (other than AE). This is reflected in a dummy variable denoting the presence of mandatory/quasi-mandatory occupational schemes.[930] In this model, the coefficient on the AE dummy becomes positive, but is still not statistically significant.

Model 3 re-estimates model 1 using fixed effects estimation, which is likely to account for unobserved time-invariant factors that are not captured using pooled OLS. In this case, the estimated coefficient on the AE dummy is negative and statistically significant (at the 1% level), suggesting that, on average, contributions per active member may decrease by €3,746 when an AE occupational pension scheme is introduced. This negative and statistically significant coefficient remains after the addition of the dummy controlling for the presence of mandatory/quasi-mandatory schemes.

The negative relationship between auto-enrolment pension schemes and average contribution rates could be driven by the fact that the average income (and hence pension contributions) of individuals saving through auto-enrolment pensions may be lower due to high participation rates (i.e. a 'composition effect').

In addition, in order to maximise participation, default contribution rates have been set at low levels so as to minimise opt-outs before individuals are automatically enrolled (i.e. a 'design effect'). By contrast, voluntary personal pensions taken out on an advised basis for example, commence with pension savers contributing the right level (typically higher than auto-enrolment pensions) to achieve some target retirement income.

In the future, once auto-enrolment pension scheme membership has been maximised, the emphasis of the schemes may shift to raising contribution rates (e.g. the minimum contribution rates were first raised in the UK in 2018, and a study by Nestinsight.org.uk did not find any evidence that cessation or opt-outs had increased following this[931]), which would be observed empirically by no association (as opposed to a negative relationship) between auto-enrolment and contributions.

6.2.3.2. Active members as a percentage of the working population

The relationship between coverage and automatic enrolment occupational pension schemes is also explored using pooled OLS and fixed effects models. Table 8 shows the estimation results for the regression estimating the impact on the share of active members of occupational pension schemes in the working population of automatic enrolment, alternative policy approaches and a set of macro-characteristics.

Table 8 Econometric results - Dependent variable = Active members as a share of the working population

Variables	**Model 1** (Pooled OLS)	**Model 2** (Pooled OLS)	**Model 3** (Fixed effects)	**Model 4** (Fixed effects)
Automatic enrolment	0.167** (0.0113)	0.183*** (0.000965)	0.155*** (0.000001)	0.155*** (0.0000001)

930 The dummy variable indicating the presence of voluntary occupational schemes is perfectly collinear with the dummies indicating the presence of AE and mandatory/quasi-mandatory schemes, so is omitted from the economeric estimation.

931 Nestinsight.org.uk. 2019. The auto enrolment experience over time. [online] Available at: <http://www.Nestinsight.org.uk/wp-content/uploads/2019/02/The-auto-enrolment-experience-over-time.pdf> [Accessed 14 May 2021].

Variables	Model 1 (Pooled OLS)	Model 2 (Pooled OLS)	Model 3 (Fixed effects)	Model 4 (Fixed effects)
Mandatory		0.0379 (0.749)		-0.000547 (0.969)
Old age benefits as a percentage of GDP	-0.00288 (0.847)	-0.00299 (0.838)	0.00324 (0.754)	0.00325 (0.754)
Household savings rate	0.0147 (0.152)	0.0160 (0.183)	-0.000993 (0.608)	-0.000994 (0.609)
Employment rate	0.0182* (0.0685)	0.0167* (0.0668)	0.00200 (0.475)	0.00199 (0.488)
Nominal short-term interest rate	-0.0101 (0.464)	-0.0105 (0.453)	-0.00134 (0.698)	-0.00133 (0.700)
Nominal long-term interest rate	0.0221 (0.112)	0.0222 (0.113)	0.00103 (0.604)	0.00103 (0.605)
Inflation rate	-0.0125 (0.309)	-0.0111 (0.387)	-0.000943 (0.203)	-0.000934 (0.225)
GDP per capita in PPP	-0.179 (0.141)	-0.189 (0.142)	0.0424 (0.728)	0.0427 (0.728)
Constant	0.553 (0.643)	0.728 (0.565)	-0.447 (0.720)	-0.449 (0.720)
Observations	209	209	209	209
Number of countries	21	21	21	21
R-squared	0.223	0.226	0.984	0.984
Adjusted R-squared	0.192	0.191	0.981	0.981

Note: Standard errors are clustered at country level. *** p<0.01, ** p<0.05, * p<0.1

Model 1 estimates the relationship between automatic enrolment and the coverage rate, defined as active members in occupational pension schemes as a share of the working population. The automatic enrolment dummy variable has a positive and statistically significant relationship (at the 5% significance level) with the coverage rate. That is, when automatic enrolment is introduced, the percentage of the working population enrolled in an occupational scheme may increase by 17 percentage points. Most macroeconomic controls do not display a statistically significant relationship with participation, apart from the employment rate, which is positively associated with the dependent variable.

Results are similar after the addition of a dummy controlling for the presence of mandatory/quasi-mandatory schemes in model 2. In particular, the AE dummy remains statistically significant at the 1% level and maintains a similar magnitude. The impact of auto-enrolment on participation remains robust to the estimation approach as the coefficient on the auto-enrolment variable remains of a similar magnitude and statistically significant when estimating the model using fixed effects (models 3 and 4).

Given these results, model 3 is the preferred estimation model. According to model 3, the introduction of AE is associated with a 16 percentage point increase in active members as a share of the working population.

Taken together, when automatic enrolment is introduced, participation in occupational pension schemes increases. The estimated impact on contributions is statistically less robust. Using pooled OLS, automatic enrolment has no impact on contributions to an occupational pension scheme; however, using a fixed effects estimation, the result suggests that average contributions decrease. This result may be driven by the default contribution rate for AE occupational pension schemes being less than the contribution rate of the existing members of occupational pension schemes.

It should be noted that the variation in the explanatory variable of interest within the estimation sample is driven by the presence of AE in Italy and the UK only. These results

should therefore be interpreted as exploratory, given the limited availability of data and coverage of AE schemes.

6.2.4. Robustness checks

To assess the stability and sensitivity of the findings, two robustness checks are performed on the preferred models for both outcomes of interest, namely contributions and coverage.

Starting with the contributions level, the preferred model is re-estimated by removing Italy from the sample. Italy is a country which has automatic enrolment but due to data issues described above, the only years included in the model are from 2016 to 2018. A second robustness check adds time dummies to the models to control for factors that vary across time are are common across countries.

Table 9 Robustness check - Dependent variable = Contributions per active member

Variables	Preferred model with time dummies	Preferred model excluding Italy
Automatic enrolment	-3,134*** (0.00006)	-3,746*** (0.0001)
Old age benefits as a percentage of GDP	241.0 (0.708)	-140.4 (0.576)
Household savings rate	-225.2 (0.353)	-221.0 (0.370)
Employment rate	490.4 (0.211)	390.5 (0.263)
Nominal short-term interest rate	127.1 (0.653)	287.8 (0.382)
Nominal long-term interest rate	9.438 (0.960)	173.9 (0.379)
Inflation rate	-171.7 (0.279)	-235.7 (0.172)
GDP per capita in PPP	-7,043 (0.447)	-9,342 (0.296)
Constant	42,469 (0.582)	75,190 (0.288)
Observations	209	206
Number of countries	21	20
R-squared	0.729	0.709
Adjusted R-squared	0.663	0.665

Note: Standard errors are clustered at country level. *** p<0.01, ** p<0.05, * p<0.1

As shown in Table 9, removing Italy and adding time dummies has little impact on the estimated coefficient of interest in the preferred model. The AE dummy remains negative and statistically insignificant.

To ensure consistency, the same robustness checks were carried out for the coverage rate as the dependent variable. The results are shown in Table 10 below.

Table 10 Robustness check - Dependent variable = Active member per member of the working population

Variables	Preferred model with time dummies	Preferred model excluding Italy
Automatic enrolment	0.159*** (0.0000002)	0.155*** (0.00000002)
Old age benefits as a percentage of GDP	0.00188 (0.889)	0.00323 (0.755)

Variables	Preferred model with time dummies	Preferred model excluding Italy
Household savings rate	-0.00174 (0.480)	-0.000989 (0.610)
Employment rate	0.00140 (0.423)	0.00198 (0.480)
Nominal short-term interest rate	0.00104 (0.726)	-0.00132 (0.703)
Nominal long-term interest rate	-0.000462 (0.849)	0.000992 (0.615)
Inflation rate	-0.000789 (0.553)	-0.000951 (0.199)
GDP per capita in PPP	0.0668 (0.648)	0.0422 (0.730)
Constant	-0.641 (0.691)	-0.441 (0.724)
Observations	209	206
Number of countries	21	20
R-squared	0.985	0.984
Adjusted R-squared	0.981	0.981

Note: Standard errors are clustered at country level. *** p<0.01, ** p<0.05, * p<0.1

Similar to the contributions model, the estimation results for the coverage rate are largely unchanged when Italy is excluded, and time dummies are added. Overall, both models seem to be consistent and robust to sample changes and the inclusion of time dummies.

6.3. Impact of AE on contributions to personal pension plans

This section reports the results of an individual-level analysis using EU Statistics on Income and Living Conditions (EU-SILC) survey microdata. The analysis investigates the effect of the introduction of Italy's occupational auto-enrolment scheme on contributions to personal pension plans amongst private sector employees. The results suggest that contributions to personal pension plans did not fall amongst private sector employees in Italy after the introduction of auto-enrolment. However, the models may underestimate the impact of auto-enrolment on contributions to personal pension plans since auto-enrolment applied to only a subset of private sector employees in the analysis period; in addition, substitution effects may have been present with respect to other private savings vehicles.

6.3.1. Approach

This analysis made use of individual-level microdata from the EU Statistics on Income and Living Conditions (EU-SILC) survey (see section 6.3.2 for further details) to examine the effect of auto-enrolment on contributions to personal pension plans. In theory, it may be the case that being auto-enrolled into an occupational pension plan tends to increase contributions to personal pension plans if auto-enrolment, and the communications surrounding it, raise pension awareness. However, there may be a substitution effect whereby people save less in personal pension plans and other savings vehicles[932] to offset the contributions that they make to occupational pension plans as a result of auto-enrolment. The effect of auto-enrolment on contributions to personal pension plans is of interest as it affects the total impact of auto-enrolment on contributions.

[932] Data on saving through such other vehicles is not available in the EU-SILC data, so this analysis focuses only on the substitution effect with personal pension plans.

The econometric analysis estimates the impact of an individual being potentially the subject of auto-enrolment on contributions to personal pension plans as a percentage of gross income in Italy. The preferred model equation can be represented as follows:

(1) $y_{it} = \alpha + \beta\ (autoenrol_{it}) + \delta X_{it} + \mu_t + \theta_i + \varepsilon_{ic}$, where:

- α is a constant.
- y is the outcome of interest, contributions to private personal pension plans as a percentage of gross income.
- *autoenrol* is a dummy variable taking the value 1 if individual *i* is employed in the private sector at time *t* if t>2006.
- β is the coefficient of interest.
- X is a set of characteristics relating to individual *i* and their employment observed at time *t*, including age, income, etc.
- δ stands for the coefficients relating to the characteristics in X.
- μ_t and θ_i are time and individual fixed effects, respectively.
- ε_{ic} is an error term.

A fixed-effects specification was used to capture individual differences that are constant over time.

The *autoenrol* variable was constructed using EU-SILC microdata on occupation and employment status. It was constructed in order to identify individuals who were private sector employees after the introduction of auto-enrolment in Italy. After January 2007 (when auto-enrolment applied to all private sector employees), the target population for the auto-enrolment scheme was in fact a subset of private sector employees, i.e. first-time private sector employees. Therefore, using this specification of the *autoenrol* variable is likely to underestimate the impact of auto-enrolment on the dependent variable, because it includes workers outside the target population. While one can use the EU-SILC data to identify strictly the target population of Italy's auto-enrolment scheme, there are problems associated with doing so. If the AE variable is specified strictly, almost all observations after 2008 are zero. This is because relatively few first-time private sector employees are included in the data set in each year, and these individuals are present in the dataset for at most three years.Additional estimations were conducted for men and women separately in order to examine if the impact of auto-enrolment on the outcome of interest differs by sex.

Finally, a robustness check was performed by modifying the definition of private sector occupations used in the construction of the *autoenrol* dummy variable and then repeating the estimation of the preferred model.

It is not possible to examine the impact of auto-enrolment on participation in occupational pensions or contributions to occupational pensions in Italy using the EU-SILC data. There is no question in the EU-SILC survey that asks if the respondent is a member of an occupational pension scheme. Moreover, there is no variable in the EU-SILC data that relates specifically to contributions to occupational pension schemes. There is a variable in the EU-SILC data for employers' social security contributions which include employers' contributions to private (occupational or personal) pension plans. One can also calculate employees' tax and social security contributions using EU-SILC data by taking the difference between gross and net income. However, in both cases, one cannot identify just the contributions to personal or occupational pensions since other payments are present.[933]

Similarly, it is not possible to examine the impact of auto-enrolment on participation in personal pension plans in Italy using the EU-SILC data. Only individuals who themselves make contributions

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933 Payet, S. (2012), 'Identification and Assessment of Publicly Available Data Sources to Calculate Indicators of Private Pensions', *OECD Working Papers on Finance, Insurance and Private Pensions*, No.21. Available at https://www.oecd-ilibrary.org/finance-and-investment/identification-and-assessment-of-publicly-available-data-sources-to-calculate-indicatros-of-private-pensions_5k94d6g58vxs-en.

to such plans can be identified; deferred members or members who benefit from contributions from another party (the employer or the state) cannot be identified.[934]

It is not possible to replicate the analysis described in this section for the UK. In the case of the UK, it is not possible to construct a variable identifying whether an individual is within the scope of auto-enrolment using the information available in the EU-SILC microdata. The introduction of auto-enrolment in the UK occurred over five years and was staged by employer size. To identify whether a particular individual was within the scope of auto-enrolment between 2012 and 2017, it would be necessary to know the number of people employed by that individual's employer. This is not possible using EU-SILC microdata for two reasons. Firstly, no data on employer size is present in the longitudinal microdata; the only employer size information present in EU-SILC data is the number of people employed at the 'local unit', which is available only in the cross-sectional data. It is not possible to link the cross-sectional data across years or to link the cross-sectional data to the longitudinal data.[935] Secondly, the 'local unit' is defined as follows: 'an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place. At or from this place economic activity is carried out for which - save for certain exceptions - one or more persons work (even if only part-time) for one and the same enterprise'.[936] Therefore, if a company employs people in more than one location, the number of people employed at the local unit is not equal to the number of people employed by the company.

6.3.2. Data

This analysis made use of individual-level longitudinal microdata for Italy from the EU-SILC survey from 2005 to 2018. The EU-SILC microdata for Italy has a rotating panel structure in which individuals are followed for up to four years.

This empirical analysis aims to assess to what extent, if any, there was substitution away from personal pensions amongst private sector employees after auto-enrolment was introduced in Italy.

There is a mismatch in reference periods between income variables and almost all other variables.[937] Variables other than income variables almost all relate to the time at which the interview was conducted. Income variables refer to a different time period; in the case of Italy, the reference period for income variables is the calendar year before the interview. Hence, interviews in year t gather information on, for instance, age in t but income in t-1. To address this mismatch issue in the analysis, the values recorded in t for variables that relate to the income reference period were linked to values for other variables in t-1. While this modification addresses the reference period mismatch, it means that there are no observations of income variables in the last year an individual is observed.

The econometric analysis focuses on individuals who are employees. Employees were identified in the database by selecting those individuals whose self-defined economic status in their current or last employment situation was as a full-time or part-time employee and then excluding those whose most recent change in employment status was from employment to another economic activity status (unemployment, retirement, or inactivity).

The dependent variable in the econometric estimations reported below is gross contributions to personal pension plans as a percentage of gross cash income. Contributions to personal pension plans are defined as '[c]ontributions made, during the income reference period, to individual private pension plans refer to the pensions policies taken out by individual households on their own initiative and for their own benefit, independently of their employers or government and outside any social insurance scheme'.[938] Gross contributions are gross of tax – in Italy, there is a

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[934] Ibid.

[935] Iacovou, M., Kaminska, O., and Levy, H. (2012), 'Using EU-SILC data for cross-national analysis: Strengths, problems and recommendations', *ISER Working Paper Series*, No.2012-03. University of Essex, Institute for Social and Economic Research (ISER).

[936] Eurostat, 'DESCRIPTION OF TARGET VARIABLES: Cross-sectional and Longitudinal'.

[937] Iacovou, M., Kaminska, O., and Levy, H. (2012), 'Using EU-SILC data for cross-national analysis: Strengths, problems and recommendations', *ISER Working Paper Series*, No.2012-03. University of Essex, Institute for Social and Economic Research (ISER).

[938] Observations in which these contributions exceed gross cash or near-cash income are dropped.

ceiling on the value of voluntary pension contributions that are exempted from tax.[939] Gross cash or near-cash income is the monetary component of income paid by an employer to an employee and is gross of tax and social security contributions. It excludes employer social security contributions. The logarithm of gross employee cash or near-cash income is used as a control.[940]

The auto-enrolment variable is a dummy variable that takes the value of 1 if an individual is a private sector employee in 2007 or later (2007 being the year in which auto-enrolment was introduced in Italy).[941] If the auto-enrolment variable takes the value 1 for an individual in a given year, it takes the value of 1 for all subsequent years in which that individual is present in the database. Otherwise, it takes the value 0. Employees are identified by the method described above. Private sector employees are identified amongst employees based on their occupation. An occupation variable is defined in the EU-SILC data for survey years before 2012 corresponding to the ISCO-08 classification. In survey years starting from 2011, an occupation variable is defined corresponding to the ISCO-88 classification. A robustness check is performed by changing the assignment of occupations to private or public sector.

The 'age' variable used in the estimations is constructed using information in the EU-SILC data on the month or quarter (depending on which is present in the EU-SILC data in the relevant survey year) and year in which the interview was conducted and the month or quarter and year in which the individual was born.[942] Both a linear and a quadratic age term are included in the estimations, based on an inspection of the data that suggested this structure was appropriate.

The 'temporary worker' status variable measures if an individual is on a permanent or a temporary work contract and is defined only for employees.

6.3.3. Results

The models in Table 11 are as follows:

- Model (1) includes the auto-enrolment dummy as the only predictor in the fixed-effects model.
- Model (2) adds age, the square of age and the log of gross cash or near cash income to (1).
- Model (3) adds time dummies to model (2).
- Model (4) adds an interaction term between age and the log of gross cash or near cash income to (3).
- Model (5) estimates model (3) on only women.
- Model (6) estimates model (3) on only men.
- Model (7) adds dummies for each occupation in the occupation variable that exists in 2011 and before to model (3).
- Model (8) adds dummies for each occupation in the occupation variable that exists in 2011 and after to model (3).
- Model (9) adds temporary worker status as an additional predictor to (3).
- Model (10) estimates (3) on the sample of model (9).
- Finally, model (11) estimates model (3) but uses a different classification of jobs as private sector in the construction of the auto-enrolment variable.

[939] See Italy country fiche.

[940] Observations in which the gross cash or near-cash income is in the top centile are dropped.

[941] The inclusion of income as a control variable in all estimations and year dummies in several of the estimations ought to capture the effetcs of the financial crisis of 2007/08 on the dependent variable.

[942] In some cases in the raw data, a respondent's year of birth increased each survey year (so, for instance, they were recorded as having been born in 1950 in the 2005 survey, in 1951 in the 2006 survey, etc.). Since year of birth should be constant over time, for each person their first recorded year of birth is used throughout.

Table 11 - Fixed effects results - Dependent variable = Gross contributions to a personal pension plan as a percentage of gross cash or near-cash income

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
Automatic enrolment	0.0245 (0.755)	0.0281 (0.753)	-0.125 (0.535)	-0.126 (0.533)	-0.0907 (0.750)	-0.254 (0.357)	-0.0978 (0.500)	-0.0342 (0.951)	-0.128 (0.525)	-0.122 (0.545)	-0.0494 (0.714)
Age		0.340** (0.0379)	0.353* (0.0750)	0.331 (0.105)	0.307 (0.223)	0.388 (0.190)	0.267 (0.212)	0.631* (0.0624)	0.349* (0.0770)	0.364* (0.0663)	0.351* (0.0761)
Age^2		-0.0039** (0.0362)	-0.0034* (0.0639)	-0.0035* (0.0650)	-0.00288 (0.277)	-0.00394 (0.127)	-0.00044 (0.820)	-0.0073** (0.0311)	-0.00338* (0.0671)	-0.00355* (0.0547)	-0.00342* (0.0645)
Log(gross cash or near cash income)		-0.630*** (0.00003)	-0.617*** (0.00004)	-0.720* (0.0861)	-0.479*** (0.00133)	-0.721*** (0.00237)	-0.567*** (0.00046)	-0.676** (0.0200)	-0.500*** (0.00038)	-0.499*** (0.00038)	-0.618*** (0.00004)
age # log(gross cash or near cash income)				0.00257 (0.779)							
Temporary worker status									-0.401** (0.0315)		
Occupation	No	No	No	No	No	No	Prior to 2012	From 2011	No	No	No
Constant	0.628*** (0)	-0.0787 (0.983)	-1.932 (0.775)	-0.968 (0.897)	-2.239 (0.775)	-6.645 (0.405)	-3.681 (0.579)	-9.233 (0.262)	-5.230 (0.337)	-5.426 (0.320)	-3.866 (0.479)
Time dummies	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	60,297	60,297	60,297	60,297	27,340	32,957	32,928	30,780	58,864	58,864	60,143
Number of individuals	40,855	40,855	40,855	40,855	18,610	22,251	22,432	21,835	39,769	39,769	40,769
R-squared	0.736	0.736	0.737	0.737	0.758	0.717	0.837	0.715	0.725	0.724	0.742

Note: *** p<0.01, ** p<0.05, * p<0.1

In all the models, the estimated coefficient on the auto-enrolment dummy is not statistically significant at the 10% level. This finding is robust to a different construction of the auto-enrolment variable when additional control variables are added and to running the estimations separately by gender. The analysis therefore suggests that auto-enrolment did not significantly impact on contribution rates to personal pension plans. However, since the auto-enrolment dummy treats more people as being eligible for auto-enrolment than was in fact the case, the effect of auto-enrolment on the dependent variable may be underestimated.

The estimation results indicate that among the individuals in the estimation sample there was no substitution away from personal pensions after the introduction of auto-enrolment. It is important to note, though, that the introduction of auto-enrolment may result in substitution away from savings vehicles other than personal pension plans.

This finding that the estimated coefficient on the auto-enrolment dummy is not statistically significant is consistent with the findings reported in the 2017 review of automatic enrolment in the UK, conducted five years after the phased introduction of auto-enrolment began. In the UK it was envisaged that voluntary saving beyond that achieved through automatic enrolment would complement automatic enrolment contributions in achieving adequate pension saving.[943] The review reported that there was no evidence of significant growth in voluntary saving outside auto-enrolment schemes after the introduction auto-enrolment in the UK.[944] It also reported, though, that there was no evidence of a substitution effect whereby individuals reduced liquid saving.[945] However, the 2015 evaluation of New Zealand's KiwiSaver scheme found evidence suggesting that only around one-third of KiwiSaver contributions represented new savings, indicating a substantial substitution effect.[946]

In most of the models the estimated coefficient for the linear age term is positive and statistically significant. Likewise, in most of the models, the estimated coefficient for the quadratic age term is negative and statistically significant. This is consistent with the intuitively plausible notion that an individual's rate of contributions to personal pension plans tends to follow an inverted-U shape, increasing as the individual progresses from youth to middle age as real income and, perhaps, pension awareness grow, and then declining as retirement draws closer and there is less time in which contributions can grow in value.

In all the models, the estimated coefficient on the log of gross cash or near cash income is negative and statistically significant. This indicates that an increase in gross income is associated with a lower rate (but not necessarily level) of contributions to personal pension plans. This may reflect the fact that a ceiling applies to the tax allowance enjoyed by voluntary (occupational or personal) pension contributions in Italy,[947] which disincentivises such contributions above that ceiling. In addition, it may reflect the broader range of options that those on higher incomes have access to with respect to saving and investment.

The estimated coefficient for temporary worker status in model (9) is negative and statistically significant, indicating that, after controlling for individual fixed effects and the other variables in the estimation, temporary worker status is associated with a lower rate of contributions to personal pension plans.

In summary, the introduction of auto-enrolment in Italy does not appear to have induced a reduction in contributions to personal pension plans amongst private sector employees.

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[943] Department for Work & Pensions (UK) (2017), 'Automatic Enrolment Review 2017: Maintaining the Momentum'. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/668971/automatic-enrolment-review-2017-maintaining-the-momentum.PDF.

[944] Ibid.

[945] Ibid.

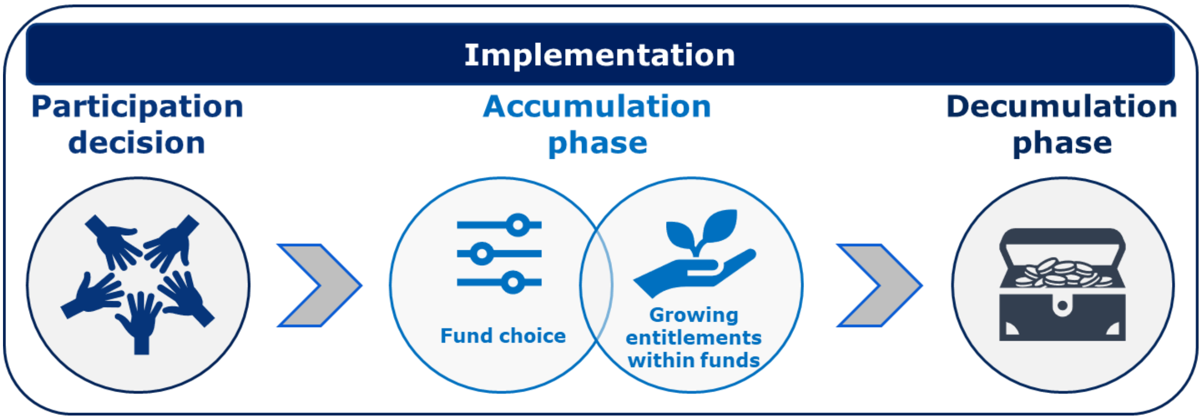
[946] Internal Revenue Department (New Zealand) (2015), 'KiwiSaver evaluation: Final summary report'. Available at https://www.ird.govt.nz/about-us/publications/research-evaluation/kiwisaver.

[947] See Italy country fiche.

7. List of best practices and scoreboard

This chapter presents a list of best practices that are recommended for an auto-enrolment scheme (sections 7.1 to 7.5) and ranks them based on the views of LE Europe as well as the experts and stakeholders that were consulted as a part of the study (section 7.6).

Recommendations are made in relation to the implementation of an auto-enrolment pension scheme as well as its design with respect to the four different stages of an individual saver's 'journey' as described in Chapter 4. These four stages are displayed again in the figure below. In particular they are, (1) the participation decision, (2) fund choice during the accumulation phase, (3) contributing and growing entitlements within funds during the accumulation phase and (4) the decumulation phase.



The case for the best practices is made drawing on the evidence collected through the study; in addition, LE Europe provide their own views on each of the best practices in view of the evidence gathered[948]. Often best practice recommendations relate to a particular issue (e.g., boosting participation) and the arguments relating to the issue are summarised. Certain best practices affect multiple issues and, in these cases, the arguments on each issue are summarised and any trade-offs are discussed.

LE Europe developed a preliminary list of best practices based on the evidence collected through the study, including findings from the literature review, market data collection and stakeholder consultations. An online workshop was then conducted at which a range of experts and stakeholders discussed the preliminary list. LE Europe then revised the list in light of the inputs received at the workshop. The workshop participants, and other experts who had not been able to attend, were then invited to comment on the revised list. Additional revisions were made in response to the further comments that were received, resulting in this final list. The final list of best practices was then ranked based on their relative performance against key criteria. More details on how the list and scoreboard were derived are provided in Annex 1.

The table below presents the final list of best practice recommendations.

Table 12 List of best practices

Recommendations regarding the implementation of auto-enrolment pension schemes
Define policy goals
Establish consensus
Risk-based supervision
Phased introduction
Information campaigns
Recommendations regarding the participation decision
Mandatory access provision

[948] In the text the opinions of LE Europe are distinguished by prefacing opinions with the phrase 'in the LE Europe's view' or similar wording.

Minimum eligible age of at most 18
Inclusion of self-employed workers
Earnings triggers
No waiting period (minimum tenure requirement)
Voluntary opt-in
Automatic re-enrolment
Employer contributions
Fixed government contributions
Recommendations regarding the accumulation phase: fund choice
Establishment by the state of a low-cost provider
Authorisation of providers by regulators
Constraint on the number of investment strategies (also known as 'funds') offered per provider
The presence of a default fund
Default fund features - capped cost, use of life-cycle investment strategies, no joining fee
Recommendations regarding the accumulation phase: Growing entitlements within funds
Default contribution rates
Contribution holidays
Centralised administration
Ease of access to costs and charges information
Transparent presentation of costs and charges
Governance in the best interests of pension scheme members
Design and implementation of solidarity clauses
Measures to avoid the proliferation of small pots
Recommendations regarding the decumulation phase
The transition from accumulation to decumulation
Default option
Signposting service for accessing advice
Review of advice sector by regulators
Early access

7.1. Recommendations regarding the implementation of auto-enrolment pension schemes

This section describes recommendations on implementation factors that can improve the impact of the introduction of an auto-enrolment scheme. Recent experience shows that implementation factors have been important determinants of how successful the introduction of auto-enrolment has been in different countries. Recommendations in this area include defining clear policy goals for the introduction of auto-enrolment, establishing consensus around both the goals of and the implementation of auto-enrolment, a supervisory framework empowering risk-based supervision of providers, phased introduction, and a National Pension Communication Campaign ahead of the scheme's introduction.

Recommendation 1: To define policy goals

Defining policy goals is a best practice recommendation for the introduction of an auto-enrolment scheme and, as argued by stakeholders, is arguably the most crucial of these best practice recommendations. Defining policy goals involves setting the objectives of the auto-enrolment pension scheme in the context of the wider national pension system – considering the gaps in coverage and adequacy of the current pension provision given planned reforms – as well as the particular economic, financial, social, and demographic conditions in the country in question. Key objectives include establishing for which particular groups especially the auto-enrolment pension scheme is aimed at increasing participation, what role the auto-enrolment pension scheme should play in providing retirement income within the country's pension system, and what risks members should bear fully or partly and what risks may be shared by scheme members. Several design features flow from the defined policy goals, particularly in relation to the scope of the auto-enrolment scheme and the default contribution rates. As per the OECD Core Principles of Private Pension Regulation,[949] the policy goals should be reflected in the legal provisions that establish auto-enrolment and should serve as a basis for ongoing monitoring and evaluation of the auto-enrolment scheme.

LE Europe view defining policy goals as an extremely important practice and believe that a scheme with defined and coherent policy goals will attract appreciably greater participation than a scheme without those things.

Recommendation 2: To establish consensus

Pensions policy is often politically sensitive and so consensus and acceptance around the auto-enrolment reform is important for the success of the reform. Stakeholders highlighted that, in addition, for pension reforms to be most effective they must be long-lasting. Reversals to reforms can interfere with the realisation of those reforms' goals and undermine trust in the pension system. Meanwhile, the design of pension reforms typically involves trade-offs between different goals and between the interests of different groups in particular areas. For these reasons, it is important to establish a consensus around both the goals of the auto-enrolment system and how it is implemented. Gathering an evidence base both to establish the need for an auto-enrolment scheme and to support a particular design of the auto-enrolment scheme is likely to be important for creating consensus. In the UK, the introduction of auto-enrolment was preceded by several years of preparatory work by a pensions committee and consensus-building amongst stakeholders. The need for consensus has implications for several design features since, as stakeholders highlighted, in a given country particular design features are more likely (and others are less likely) to be able to achieve consensus. For instance, in countries where social partners play a large role in the pension system and in social policy matters more broadly, an auto-enrolment scheme is likely to need to afford a role to the social partners if it is to garner a consensus.

In order to maintain consensus, dialogue and engagement with stakeholder groups should continue as part of the auto-enrolment scheme's ongoing monitoring and evaluation process.

LE Europe view the establishment of consensus as vital for the success an auto-enrolment scheme. Moreover, a scheme that achieves 'buy-in' amongst stakeholders is likely to see substantially greater participation than one that does not do so.

Recommendation 3: To provide risk-based supervision

A supervisory framework for risk-based supervision of pension providers is a best practice recommendation. Risk-based supervision is 'a structured approach which focuses on the identification of potential risks faced by pension plans or funds and the assessment of the financial and operational factors in place to minimise and mitigate those risks. This process then allows the supervisory authority to direct its resources towards the issues and entities which pose the greatest threat'.[950] Risk-based supervision helps regulators to make the most efficient use of resources. In practice effective supervision focuses on legal compliance, financial control, actuarial examination and supervision of those responsible for schemes. The OECD's Core Principles of Private Pension Regulation, furthermore, make recommendations for the funding rules for occupational schemes, insurance arrangements and winding up procedures in the event of pension fund failures.[951] The IORP II directive introduced provisions on prudential supervision as well as governance and risk management requirements for IORPs.[952] The existence of a supervisory framework empowering risk-based supervision is especially important upon the introduction of an auto-enrolment scheme given that auto-enrolment will introduce large numbers of new savers, many of whom will have low levels of engagement with pension matters, into the private pension system, along with an attendant large amount of capital (which may become an important part of the retirement incomes of a large number of savers). In addition, auto-enrolment reforms can precipitate market and

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[949] OECD (2016), 'Core Principles of Private Pension Regulation'. Available at https://www.oecd.org/daf/fin/private-pensions/Core-Principles-Private-Pension-Regulation.pdf.

[950] Ibid.

[951] Ibid.

[952] Directive (EU) 2016/2341 of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs). Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016L2341.

regulatory changes that require the relevant regulator or other competent authority to adapt its current risk-based supervision framework.

Separately, insofar as auto-enrolment imposes legal obligations on employers and providers, new powers may be required for the relevant authority to monitor and enforce compliance with these obligations. The regulators or other competent authorities would also need to assess the influence of intermediaries on employers' scheme choice (irrespective of whether or not those intermediaries are regulated to provide financial advice).

LE Europe view risk-based supervision as critical for the successful implementation of auto-enrolment and believe that its presence should help to secure substantially higher returns than in its absence.

Recommendation 4: To use a phased introduction

For occupational auto-enrolment pension schemes, a phased introduction is a best practice recommendation to give employers and other stakeholders time to understand their duties and take practical steps such as introducing new payroll arrangements. The extent of employers' obligations will depend on the precise model of auto-enrolment used and could include collecting contributions, processing contributions and distributing them to a provider(s), assessing employees' eligibility, and selecting a provider. It is recommended that, as in the examples discussed in the study, the phased introduction includes a period prior to the roll-out of auto-enrolment pensions for employers to prepare and a staging of the roll-out, by employer size with large employers falling into scope first. The rationale for staging roll-out in this manner in particular is that larger employers have a greater capacity to perform their obligations under auto-enrolment than smaller ones and so larger employers are likely to require less time to prepare for their obligations under auto-enrolment than smaller ones. In both the UK and Poland, auto-enrolment was introduced over several years and was staged by employer size, beginning with .[953] The introduction of auto-enrolment was also phased according to employer size in Turkey, in Quebec in Canada, and in the case of state-based auto-IRAs in the US.[954] Alternatively, the introduction of auto-enrolment could also be staged by sector, so that employers in the same sector faced the costs and obligations associated with auto-enrolment at the same time as each other, ensuring a 'level playing field' in that sense.

LE Europe view the phased introduction of auto-enrolment as a crucial practice that has a significant positive impact on participation in the scheme.

Recommendation 5: To undertake information campaigns

National Pension Communication Campaigns (NPCC) are a best practice recommendation following the evidence presented in an OECD study on the topic. NPCCs can play an important role in raising awareness amongst both savers and sponsors in the auto-enrolment scheme, of the importance of pension saving, and of their obligations under auto-enrolment. With regard to the design of the NPCCs, several suggestions are made including timing the NPCC to precede the start of the roll out of auto-enrolment pensions, using a mix of modes to engage pension savers and sponsors and having sufficient budget. In the experience of different countries rolling out auto-enrolment pensions, different approaches have been taken to targeting NPCCs[955] with no clear-cut favoured approach.

The NPCC should form part of a broader, sustained effort to raise levels of financial literacy.

LE Europe views NPCCs as an important tool to increase participation in an auto-enrolment scheme.

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[953] See Poland and UK country fiches.

[954] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[955] Atkinson, A., Harrison, D., Messy, F.-A., Yermo, J. (2012), 'Lessons from National Pension Communication Campaigns', *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 18. Available at https://www.oecd.org/pensions/private-pensions/50255339.pdf.

Box 7 How can AE pension schemes thrive in Member States that have limited capital market development and a limited offer of occupational pension schemes?

In Member States where there is a limited number of providers of occupational pension schemes before the introduction of auto-enrolment, the establishment by the state of a low-cost provider may play an important role in stimulating competition in the pension provider market and serve as a quality benchmark in the market, as argued in section 7.3. The creation of such of a low-cost provider will also add to the capacity of the pension provider market to serve all savers. In addition, measures such as authorisation of providers by regulators and caps on charges may be especially important in Member States with limited occupational pension provider markets prior to the introduction of auto-enrolment in order to protect consumers while the market develops.

In Member States with limited capital market development, the ability to access foreign asset managers and invest in foreign securities is conducive to the success of auto-enrolment. As argued in section 3.2.2, these two features would allow savers to access deeper capital markets.

7.2. Recommendations regarding the participation decision

This section provides recommendations and suggestions regarding features of auto-enrolment pension schemes that relate to which persons are in scope to participate in the scheme.

In general terms, in those Member States that choose to introduce auto-enrolment into pension schemes and where such schemes are designed to play a substantial role in income replacement, the wider the scope of auto-enrolment pension schemes, the greater the potential to boost participation in pension savings. Best practice recommendations in this area largely focus on targeting sub-groups of the population that are likely to have lower levels of participation, including young employees and the self-employed. In addition, it is recommended that employees that are not in scope, but wish to join an auto-enrolment pension scheme, be allowed to voluntarily opt-in. Further targeting of sub-groups of the population should be carried out at Member State level, taking into account the savings needs of the various sub-groups and whether these needs would best be met through supplementary pension savings, bearing in mind the overall pensions system. Where occupational schemes with an auto-enrolment mechanism might be introduced, making it obligatory (not voluntary) for employers to grant access to employees to an auto-enrolment pension scheme is recommended because it brings more employees into scope for accessing an auto-enrolment pension. No recommendation is provided as to the length of the opt-out window and its nature (e.g., as to whether it is possible to exit the auto-enrolment scheme after the opt-out window, and whether contributions start only after the window) as there does not appear to be strong evidence as to what represents best practice in this area.

Recommendation 6: To provide mandatory access to occupational auto-enrolment pension schemes

Requiring employers to grant access to employees to an auto-enrolment pension scheme - mandatory access provision - is a best practice recommendation because of its impact on participation. There is empirical evidence showing a greater increase in the membership of occupational pension schemes where there is mandatory access provision compared to where there is voluntary access provision. In particular, province-level evidence on Canada shows that mandatory access provision in Quebec has been significantly more effective than voluntary access provision in other provinces in boosting auto-enrolment pension scheme participation.[956]

Mandatory access provision does raise the cost of employment, because of both the administrative costs associated with compliance and the costs of contributions themselves. As such, it could affect low-wage employment in particular.

LE Europe view mandatory access provision as essential to maximising participation in auto-enrolment pension schemes based on the aforementioned evidence. LE Europe also argue that

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[956] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

earnings triggers (discussed below) could be used to mitigate potential unemployment arising from mandatory access provision.

Recommendation 7: To set a minimum eligible age of at most 18

A minimum age of at most 18 (as exists in Poland's auto-enrolment scheme[957]) is suggested as a best practice for when employees can participate in auto-enrolment pension schemes for the following reasons. Firstly, it is argued that if deductions of pension contributions from gross pay is the status quo from the start of an individual's working life, there will be fewer opt-outs than if they begin several years into an individual's working life.[958] Secondly, it is argued that starting to contribute to a pension account from an earlier age is likely to result in greater retirement savings due to establishing a habit of saving earlier.[959]

LE Europe are of the opinion that this practice will have a positive (but not extremely positive) impact on participation, savings and returns versus a counterfactual in which the minimum eligible age is slightly older (for example, 21 years).

Recommendation 8: To include self-employed workers

A best practice recommendation is the inclusion of self-employed workers where there is a body that is able to perform the function of automatically enrolling these workers (in the way that employers do for employees in most currently existing auto-enrolment schemes). It is important that there is a 'third party' that performs this function, such as chambers of commerce, business associations and insurers, among others, since if the self-employed worker is made to do it then auto-enrolment fails to make use properly of the behavioural phenomenon of inertia. In some countries, however, there will not be a body that has the resources and capacity to play this role. In such countries, it is recommended that other solutions – such as the use of fiscal incentives for personal pension plans, as is already the case in many countries, and the promotion of 'saving through consumption' platforms (that automatically save a fraction of the value of an individual's consumption purchases) – are implemented in order to encourage voluntary private pension saving amongst self-employed workers.

LE Europe expect the inclusion of self-employed workers to have a modest, positive effect on participation, acknowledging the potential difficulty of automatically enrolling self-employed workers in practice.

Box 8 What features can ensure that low-income earners and workers with different types of job contracts and economic statuses can benefit from auto-enrolment in a cost-effective manner?

A range of practices including the transparent presentation of, and ease of access to, information about costs and charges, are recommended to keep costs low for savers in general. A state-established low-cost provider – whose establishment is recommended subject to the condition that the pre-existing pension provision market is not able to serve all those who will be auto-enrolled at a suitable level of costs in section 7.3 – is likely to be a particularly valuable way of accessing a cost-effective fund for the self-employed and low-income earners.

Solidarity clauses that provide for transfers between high-income groups and low-income groups within an auto-enrolment scheme can be used to magnify the benefit low-income earners receive from participating in an auto-enrolment scheme. A key challenge is to design any solidarity clause in a way that does not prompt high-income members to exit the scheme in large numbers. Two potential designs for solidarity clauses that would benefit low-income earners are suggested in section 7.4.

With respect to workers with different types of job contracts and economic statuses, the inclusion of the self-employed where there is a body capable of automatically enrolling them is

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958 Department for Work & Pensions (UK) (2017), 'Automatic Enrolment Review 2017: Maintaining the Momentum'. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/668971/automatic-enrolment-review-2017-maintaining-the-momentum.PDF.

959 Ibid.

recommended as a best practice in order to secure greater participation in supplementary pensions amongst such workers. Alternatively, innovative solutions such as the promotion of 'saving through consumption' platforms, discussed in sections 4.2.1.5 and 0, may be particularly effective for such workers.

These recommendations are particularly important with respect to the goal of expanding participation in private, supplementary pensions, especially in light of the growing share of self-employed workers in several Member States (e.g., due to the rise in the gig economy).

LE Europe are more circumspect about the effect of making self-employed workers eligible for auto-enrolment pension schemes on retirement savings. Earnings triggers (discussed below) may be used to exempt from auto-enrolment those self-employed persons that cannot afford to save. However, it may be administratively difficult to determine income and contribution levels. There is no clear best practice - in some countries, self-employed workers are given more discretion to determine income and contributions, while in other countries, there are rules that may not result in income being calculated precisely for all business types - and retirement savings depend heavily on the regime adopted.

Recommendation 9: To set an earnings trigger

A recommendation is to have an 'earnings trigger' for auto-enrolment such that only those who earn over a certain threshold are auto-enrolled, as exists in the UK's auto-enrolment scheme. Moreover, it is recommended that the level of such an earnings trigger is set at the level of a pre-existing trigger in the tax and social security system that will already be built into payroll systems. This will serve to simplify the administration of such a trigger for employers because, for example, they will observe that an employee crossing the tax earnings trigger needs to be auto-enrolled. It is important, however, that the choice of the trigger is not solely based on convenience but also it should be appropriate in light of the considerations about the affordability of contributions and pension adequacy discussed in the following paragraph.

An earnings trigger is recommended because low-wage earners are likely to be less able to afford such contributions than other workers and have relatively less need of a supplementary pension to replace working income (with the state pension playing that role);[960] for such earners, income that is deferred by contributing to a pension scheme might be better spent on contemporaneous consumption or on paying down debts.[961] Another rationale for an earnings trigger is that it may mitigate the risk of mandatory access provision raising low-wage unemployment that could result from the increase in the cost of employing low-wage workers.

If earnings are assessed at the employer level for the purposes of implementing the earnings trigger, a number of people who are in multiple low-paid employment (MLPE) will be excluded from auto-enrolment whose total earnings exceed the threshold but whose earnings in each job do not. This points to an advantage of centralised administration, which is recommended below; centralised administration could facilitate the assessment of aggregate earnings. Where earnings are assessed on a by-employer basis, those in MLPE whose aggregate earnings exceed the earnings threshold should be encouraged to voluntarily opt in.

The impact of an earnings trigger on women and on other groups that experience socioeconomic disadvantage should be carefully monitored and considered, since earnings triggers tend to disproportionately exclude members of these groups from auto-enrolment.[962] In recommendation 0 below, a solidarity clause involving government and employer contributions is suggested that could attenuate the impact of an earnings trigger on those whom it excludes from auto-enrolment.

LE Europe view earnings triggers as an important best practice for protecting low-income workers from contributing to a supplementary pension scheme when the state pension replaces their

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[960] OECD (2014). 'OECD Pensions Outlook 2014'. Available at https://read.oecd-ilibrary.org/finance-and-investment/oecd-pensions-outlook-2014_9789264222687-en.

[961] Bourquin, P. and Crawford, R. (2020), 'Automatic enrolment – too successful a nudge to boost pension saving?'. Published 18th May 2020. Available at https://www.ifs.org.uk/publications/14850.

[962] See, e.g., Foster, L., Wijeratne, D. and Mulligan, E., 'Gender and proposed Auto-enrolment in the Republic of Ireland: Lessons from the UK', *Soc. Policy Adm.* 2021;55: 143-156.

working income. Affected workers may also be better off by spending wages on current needs, as described above.

Recommendation 10: To have no waiting period (minimum tenure requirement)

In some auto-enrolment schemes, auto-enrolment is required only for employees who have worked for the employer for a certain amount of time (for instance, for at least a year). A best practice recommendation is not to have such a waiting period for auto-enrolment, so as to achieve greater participation. It precludes the use by employers of probationary periods or short temporary contracts as a means of avoiding obligations under auto-enrolment. There is empirical evidence that auto-enrolment is particularly effective in increasing participation in pension schemes amongst short-tenure employees.[963]

LE Europe view 'no waiting periods' as crucial to protecting employees from the shortening of employment contracts, as well as their access to auto-enrolment pension schemes. While relatively few workers may be affected by no waiting periods, LE Europe rate no waiting periods as a practice of high importance because particular groups like low-wage workers may be especially affected,

Recommendation 11: To have voluntary opt-in

Some workers may not be in scope to become members of an auto-enrolment pension scheme, given the design of the scheme being introduced by the Member State (for example, low-wage earners if earnings triggers are used). Allowing members of the labour force who are not in scope for auto-enrolment pension schemes to voluntarily opt-in is a best practice recommendation because of the positive impact of a broader scope on participation. Several countries have implemented such a design; in New Zealand, the majority of KiwiSaver members are those who chose to opt in voluntarily.[964] It should be noted, though, that permitting voluntary opt-ins may increase the complexity and cost of administration for employers. LE Europe expect a positive impact of permitting voluntary opt-ins on participation but expect that the effect will be small because of the fact that affected workers will have to make an active choice to be enrolled.

Recommendation 12: To allow for automatic re-enrolment

Automatic re-enrolment at regular intervals, or upon changing employer, of those who have opted out from the auto-enrolment pension scheme is a best practice recommendation. Automatic re-enrolment can increase participation over time.[965] It also reflects the fact that individuals' circumstances often change over time. The length of the interval at which those who opt out are automatically re-enrolled should reflect the fact that more frequent re-enrolment entails a greater administrative burden but is likely to have a greater impact on participation. In countries whose auto-enrolment schemes currently feature automatic re-enrolment, every three years is a common interval for re-enrolment. Clear information and transparency about the process of automatic re-enrolment is important, in order to preserve trust in the system. LE Europe expect a positive impact on participation of automatic re-enrolment but expect the effect to be small because few are likely to opt-out in the first instance.

Recommendation 13: To include employer contributions

Mandatory employer contributions are a best practice recommendation because they incentivise employees to participate. If employees opt out and do not contribute, employer contributions are foregone. It is recommended that the level of employer contributions as a percentage of the employee's salary is fixed. 'Matching' employer contributions that require employers to match a percentage of employee contributions up to a ceiling expressed as a percentage of the employee's salary are not recommended. 'Matching' employer contributions risk being regressive as they will mean employers make (relatively) more contributions to the pensions of better-off employees, who are those who will be better able to afford higher contribution rates. This risk of being regressive is, however, mitigated if contributions are 'matched' only up to a certain percentage of the saver's salary. The rate at which employer contributions should be set will depend on the policy goals of

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[963] Cribb, J. and Emmerson, C. (2016), 'What happens when employers are obliged to nudge? Automatic enrolment and pension saving in the UK', *IFS Working Paper W16/19*, Institute for Fiscal Studies. Available at https://www.ifs.org.uk/uploads/wp1619.pdf.

[964] Inland Revenue (New Zealand) (2021) 'KiwiSaver statistics'. Available at: https://www.ird.govt.nz/about-us/tax-statistics/kiwisaver.

[965] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

the auto-enrolment system in the country in question and the levels of adequacy achieved through other elements of the pension systems and the cost to employers.

It is further recommended that employer contributions continue during maternity leave in order to mitigate the impact of maternity leave on women's pension entitlements, given the gender pension gap that exists in many European countries (and elsewhere). On the issue of the gender gap in pensions, the High-Level Group of Experts on Supplementary Pensions (HLG) also recommend that Member States and occupational pension providers should ensure that occupational pensions provide pension credits for career breaks linked to childcare or other caring responsibilities, protecting the accrual of pension rights and encouraging equal sharing of care responsibilities between women and men.[966]

LE Europe view employer contributions as very important to participation in auto-enrolment pension schemes because employees will be incentivised to maximise their remuneration. Stakeholders, meanwhile, viewed employer contributions as having a positive but not an extremely positive impact on participation.

Recommendation 14: To use fixed government contributions

Fixed government contributions, a form of non-tax financial incentives, are a best practice recommendation as a means of incentivising participation. Government contributions that are fixed, rather than calculated as a percentage of gross salary or 'matched' to the level of the saver's contribution, are recommended since these minimise redistribution to better off savers, who can afford to save more (some redistribution may still occur if better off savers are more likely to participate in the auto-enrolment scheme). Non-tax financial incentives can generally be targeted better at low and middle-income workers than tax incentives can.[967] Subsidies that are fixed in nominal terms provide a more powerful incentive for those in lower income groups, who are likely to be a particular target of the auto-enrolment scheme, than for other people. Non-tax financial incentives are becoming more prominent, although in the past tax incentives have been more common. Countries that offer government contributions include Lithuania, Poland, Turkey and New Zealand.[968] Government contributions are fixed in Poland and Lithuania.[969] In Turkey, there is both a fixed 'kick-start' government contribution and a matching government contribution.[970] In New Zealand, the government contribution is a matching contribution; there was previously also a fixed 'kick-start' contribution from the state but this was stopped for budget reasons.[971] 'Kick-start' (that is, one-off) contributions are expected to impact participation and countries introducing auto-enrolment should consider them as an option if participation is low. However, regular government contributions may be preferable to encourage savers to contribute to their pensions on an ongoing basis.

Similar to employer contributions, LE Europe expect a positive impact of government contributions on participation because of the incentive they create for workers to join a pension scheme.

7.3. Recommendations regarding the accumulation phase: Fund choice

This section contains recommendations and suggestions relating to the design of the auto-enrolment scheme as it relates to savers' choice of funds. Firstly, it is recommended that the state establish a low-cost provider, like Nest in the UK or AP7 in Sweden's contribution-neutral compulsory scheme. Secondly, LE Europe recommend that regulators or other competent authorities authorise providers and employers/employees choose among authorised providers. Thirdly, we recommend that the number of investment strategies (or 'funds') made available per provider is limited to prevent choice overload among pension savers and manage provider costs. The presence of a default fund is recommended to allow pension members to invest without

[966] High-Level Group of Experts on Pensions (2019), 'Final report of the high-level group of experts on pensions', available at: https://www.pensionseurope.eu/system/files/HLG%20report_FINAL.pdf.

[967] Ibid.

[968] Ibid.

[969] Ibid.

[970] Ibid.

[971] New Zealand Government (2015), 'KiwiSaver $1,000 kick-start payment to cease'. Press release, published 21st May 2015. Available at https://www.beehive.govt.nz/release/kiwisaver-1000-kick-start-payment-cease.

making an active choice. Finally, recommendations are made regarding the desirable features of default funds, given that a large number of pension savers will be investing in default funds.

Recommendation 15: To establish a low-cost provider via the state

A best practice recommendation is that the state – perhaps in coordination with the social partners, depending on the role of the social partners in the pension system – establishes a low-cost provider, similar to Nest in the UK or AP7 in Sweden's contribution-neutral compulsory premium pension system. Such a provider can serve to drive competition in the market by providing a benchmark against which other providers must compete. It can also ensure that at least a minimum standard of offering is available to all savers and/or employers. It is recommended that the low-cost provider be managed independently from the state after it is established to mitigate conflicts of interest.

It should be noted that where the pension provision market is able to serve all those who will be auto-enrolled at an acceptable cost level, this recommendation does not apply. However, given that auto-enrolment is likely to see a large expansion of the private pension system in a market where it is introduced and will likely involve new types of savers being brought into the market, it is likely that in many countries there will be a supply-side gap in the pension provision market that can be filled by a state-established low-cost provider.

In LE Europe's view, the establishment by the state of a low-cost provider is extremely important, principally because of its effect on pension scheme returns. Not only does LE Europe expect the provider to offer low costs but it will drive competition among other providers to do the same. Interestingly, stakeholders were less sanguine about a low-cost provider playing such a role, as they have in Sweden and the UK.

Box 9 How can low-cost pension saving vehicles (such as Nest in the UK and AP7 in Sweden) be developed by countries that currently have no such vehicles widely accessible?

In countries where low-cost pension saving vehicles are not widely available, the state can establish a provider tasked with serving the market at a low cost. Such a provider will also serve to drive competition within the market. Both Nest in the UK and AP7 in Sweden were established by the respective governments in the countries in question.

Such a vehicle could, like both Nest[972] and AP7[973], be run on a not-for-profit basis, meaning that what would be profit can be used to reduce charges to savers.[974]

Prior to the launch of Nest, its predecessor organisation the Personal Accounts Delivery Authority (PADA) conducted a number of consultation exercises gathering from a range of experts and stakeholders views on several aspects of its design, including its charging structure, its approach to decumulation, and its investment approach.[975] In LE Europe's view, conducting consultations in this manner ahead of the establishment of a low transaction cost pension saving vehicle like Nest or AP7 is a good practice. By building an evidence base for the development of the vehicle, it both improves the quality of the vehicle that is developed and secures a consensus around its creation.

The design of Nest shows how a state-established provider could use its large size to achieve economies of scale that reduce costs for savers. As described in section 4.3, Nest operates an 'internal market' wherein its different retirement date funds exchange assets between each

[972] UK Government, 'National Employment Savings Trust (NEST) Corporation'. Available at https://www.gov.uk/government/organisations/national-employment-savings-trust.

[973] Tuck, N. (2020), 'Sweden's AP7 reduces equity fund management fee', *European Pensions*. Published 22nd December 2020. Available at https://www.europeanpensions.net/ep/Sweden-AP7-reduces-equity-fund-management-fee.php.

[974] See Tuck, N. (2020), 'Sweden's AP7 reduces equity fund management fee', *European Pensions*. Published 22nd December 2020. Available at https://www.europeanpensions.net/ep/Sweden-AP7-reduces-equity-fund-management-fee.php.

[975] See Nest, 'Consultations run by Nest'. Available at https://www.nestpensions.org.uk/schemeweb/nest/nestcorporation/news-press-and-policy/thought-leadership-and-consultations/consultations.html.

other. This strategy avoids transaction costs such as brokerage fees, reducing total costs for savers.

A provider of low-cost pension saving vehicles established by the state should be subject to the same regulations and supervision as other providers in the market.[976] In addition, the governance of a state-established provider should be independent of the state in order to avoid conflicts between the interest of savers and other government policy goals.[977] Nest, although accountable to Parliament, generally has autonomy over its day-to-day governance.[978]

<u>Recommendation 16: To authorise providers via regulators</u>

LE Europe recommend that regulators or other competent authorities should authorise pension providers specifically to serve the auto-enrolment market (i.e., in addition to the authorisation process for generally serving the pensions market), with employers left to choose from amongst those approved providers.[979] Such a design could protect pension savers by reducing the amount of decision-making that is required from employers, reducing the risk of 'choice overload'. Regulators or other competent authorities are also better-placed than most employers and employees to perform due diligence on providers. Factors to include in the assessment of providers includes their experience, their use of technology, their communication and provision of financial education to savers, their assets under management, and costs. The number of providers authorised in total should also be a consideration as part of the assessment of costs because there may be lower costs if the market is served by fewer providers, due to economies of scale.

Box 10 What are desirable characteristics of providers in an auto-enrolment scheme?

Desirable characteristics of providers in an auto-enrolment scheme include the following:

- they charge low fees, which reduces the extent to which fees undermine the saver's accumulation of capital;
- they communicate with and educate savers, assisting them in making better-informed choices;
- they use technology in a way that assists savers and reduces costs; and
- they have experience of managing capital and assets under management that indicate capacity to serve as providers in the auto-enrolment market.

It is recommended in section 7.3 that the regulator or other competent authority authorise providers that possess these desirable characteristics, in order to reduce the risks to savers involved in the choosing of a provider (which may be done on the saver's behalf by an employer). The total number of providers in the auto-enrolment scheme is also an issue since it has implications for both the level of competition in the market and the feasibility of achieving economies of scale.

Authorisation of providers should subject to ongoing review, as part of risk-based supervision. It is recommended that authorised providers should be subject to monitoring and evaluation and that it should be possible for a provider to lose its authorisation. Regulators and other competent authorities should specify what happens to a saver's funds and contributions when a provider loses its authorisation or otherwise exits the market (for instance, because it chooses to cease its operations in the auto-enrolment market). LE Europe view the authorisation of providers to serve the auto-enrolment pensions market as an important best practice, in view of the harm savers faced in Sweden when providers had relatively free access to the market. LE Europe also expects that some employers will be incentivised to take up pension offers that suit them, in minimising administrative burden for example, rather than in terms of what is in the best interests of

[976] Rudolph, H.P. (2019), 'Pension Funds with Automatic Enrollment Schemes – Lessons for Emerging Economies', *World Bank Policy Research Working Paper 8726*. Available at http://documents1.worldbank.org/curated/en/368081549376313709/pdf/WPS8726.pdf.

[977] Ibid.

[978] Nest, 'How Nest is run'. Available at https://www.nestpensions.org.uk/schemeweb/nest/nestcorporation/how-nest-is-run.html.

[979] In this model, the self-employed would choose both a provider and a fund. If a model were chosen wherein the saver, rather than the employer, chose the provider, the saver would be left to choose from amongst the providers authorized by the competent authority.

employees. If competent authorities limit choice in the market to providers meeting minimum standards, such action will help to limit conflicts of interest.

Recommendation 17: To limit the number of investment strategies (also known as 'funds') offered per provider

LE Europe suggest placing a constraint on the number of investment strategies offered per provider. Limiting the numbers of investment strategies available per provider helps to reduce the risks associated with savers, many of whom will have low levels of financial literacy,[980] making an active choice that does not suit them. Having only a limited number of investment strategies can help providers to exploit economies of scale, by trading more between savers in-house rather than on markets and thereby avoiding transaction costs, for example, which should result in lower fees for savers. The constraint should not be so severe, however, as to drastically limit the range of options available to savers.

The alternative of a more permissive approach may allow savers greater choice of investment strategies but, given savers' generally low levels of financial literacy and considerations about the behavioural phenomenon of 'choice overload', there are questions about the benefits of this greater choice.

LE Europe view a limited choice of investment strategies for savers once they have enrolled with a particular provider as another aspect of protecting savers. Pension savers may be at risk of choosing unsuitable investment strategies and a limited number of options may help to prevent poor choices, with providers offering a handful of strategies with broad appeal. In addition, a market with fewer funds may be easier to oversee for regulators.

Recommendation 18: To have the presence of a default fund

A best practice recommendation is the presence of a default fund in the auto-enrolment pension scheme that serves savers in the auto-enrolment scheme who do not make an active choice of fund.[981] The presence of a default fund is essential because many newly-enrolled scheme members may not have the knowledge and engagement, or seek out advice, to choose a fund.

LE Europe view the presence of a default fund crucial to an auto-enrolment pension because, given certain features discussed below, default funds help savers to invest their assets in lifecycle investment strategies at low cost.

Recommendation 19: To use default fund features – capped cost, use of life-cycle investment strategies, no joining fee

A number of recommendations are made regarding the characteristics of default funds, given so many auto-enrolment pension scheme members invest in them. Default funds should have low fees, secured by a cap on fees for default funds. A precise fee level is not prescribed but the regulator or other competent authority should make an assessment that informs a suitable level for a cap on fees. Life-cycle investment strategies are recommended for default funds because of arguments about the appropriate risk-reward trade-offs to make by age and the prevalence of these strategies in several auto-enrolment pension schemes.[982] A so-called foundation phase in which new savers spend a period of time investing more conservatively than suggested by their age to avoid early losses, which research shows could impact future saving behaviour, is also recommended per the default fund of the government-established provider Nest in the UK.[983] Ease of entry into default funds is also recommended because charging a joining fee may increase opt-outs from default funds.

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[980] See, for instance, OECD (2005), 'Improving Financial Literacy: Analysis of Issues and Policies'. Available at https://www.oecd.org/finance/financial-education/improvingfinancialliteracyanalysisofissuesandpolicies.htm.

[981] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[982] As a result, several default funds will co-exist at any one time for people of different ages, reflecting the different investments involved in a life-cycle investment strategy at different ages.

[983] See NEST (2013), 'Looking after members' money – NEST's investment approach'. Available at https://www.Nestpensions.org.uk/schemeweb/NestWeb/includes/public/docs/Developing-and-delivering-NESTs-Investment-Approach%2CPDF.pdf.

LE Europe view the default fund features best practice as extremely important. Controlling costs is important for investment returns. There is evidence supporting the use of lifecycle strategies for pension investments and while there are other ways to investment pension assets, LE Europe is of the view that the default fund should follow a traditional approach. Finally, the other features that constitute this best practice recommendation are supported by behavioural evidence.

7.4. Recommendations regarding the accumulation phase: Growing entitlements within funds

This section contains recommendations and suggestions on the part of the saver's journey in which they make contributions to a fund and grow entitlements within it.

The recommendations in relation to contributions aim to balance a trade-off between participation and levels of saving. Lower default contribution rates and contribution holidays are likely to lessen the incentive to opt out from an auto-enrolment pension scheme, but they risk generating levels of pension saving that are not sufficient to ensure an adequate pension later in life. Centralised administration and processing of contributions is recommended (if a body capable of performing this function exists) in order to achieve economies of scale and alleviate the administrative burden on employers.

In relation to costs and charges, recommendations focus on making the costs of pensions more transparent because of their importance to investment returns, although it is recognised that these measures are unlikely to be a panacea given levels of engagement and financial literacy amongst savers and sponsors. While a variety of more robust interventions have been observed to limit the cost of pensions, such as charge caps, LE Europe expect different interventions to be relevant to different Member States, depending on how competitive the pensions market is. Because of this, we do not make general recommendations on costs beyond what is presented below and the recommendation made above that default funds be subject to a charge cap, the latter being motivated by the fact that large numbers of low-engagement savers are likely to use such funds.

In relation to scheme governance, the presence of a governing board that oversees the operation of the pension scheme in the best interest of savers is a best practice recommendation.

With regard to solidarity clauses, LE Europe offer two designs that Member States could consider in the context of auto-enrolment but recognise that the precise nature of any solidarity clause in an auto-enrolment mechanism will need to be sensitive to the particular context in the Member State in question.

Finally, it is recommended that measures are implemented to avoid the proliferation of small, deferred pots, which present risks and challenges both for savers and for providers. The text on this recommendation below presents two such measures; the appropriate measure that is likely to be appropriate will depend on the particularities of the pension system in question.

<u>Recommendation 20: To set default contribution rates</u>

An initially low default contribution rate is a best practice recommendation, limiting opt-outs at this stage. If employer contributions are also set at a low level, employers are also not incentivised to discourage employees from joining auto-enrolment pension schemes. It is recommended that employer contributions be mandated in order to incentivise participation and avoid a 'race to the bottom' between employers in relation to employer contribution rates. Low default contribution rates are unlikely to ensure sufficient retirement savings, depending on other pension entitlements. It is, therefore, further recommended that the default (but not the minimum[984]) contribution rate increases over time at the individual level, with the increases being gradual so that individuals do not experience a negative shock to their after-tax income because of any of the increases. Having contributions increase with age also fits with people's general pattern to save more as they grow older. The target level that default contribution rates eventually rise to depends on the role that auto-enrolment pensions play in ensuring sufficient retirement income relative to rest of the pension system.

[984] LE Europe recommend that the minimum contribution rate remains unchanged so that savers can, if they wish, opt out from these increases in the default rate.

LE Europe view default contribution rates as essential to maximising participation when set at a sufficiently low level. Furthermore, LE Europe expects default contribution rates to have a positive impact on new savers' pension savings. However, we also believe that it is important for contributions to ramp up sufficiently or there is a risk of contributions anchoring at too low a level.

Recommendation 21: To provide contribution holidays

Contribution holidays that allow pension savers to pause their contributions with employer and government contributions continuing are a best practice recommendation. While such contribution holidays lead to a reduction in contributions, they allow pension savers financial flexibility to weather personal challenges and economic shocks, which could be important for vulnerable groups especially. In many countries with auto-enrolment pension schemes, contribution holidays are permitted but a variety of practices are observed. In LE Europe's view the main risk of contribution holidays is inertia leading pension savers to fail to reinstate contributions after a holiday, potentially leading to shortfalls in retirement savings. This should be addressed by having contributions restart at the end of a holiday automatically (on an opt-out basis), as is the case in Lithuania and New Zealand.[985]

LE Europe are of the view that while contribution holidays do not contribute towards goals for supplementary pensions like participation, or savings, it remains important to permit contribution holidays when savers face hardship while maintaining employer and government contributions to limit the extent of future retirement pot shortfalls.

Recommendation 22: To have a centralised administration

Centralised administration and processing of pensions contributions is a best practice recommendation. Centralised administration reduces the administrative costs on small employers that may find it difficult to comply with having to offer employees access to an auto-enrolment pension scheme otherwise. Centralised administration also has the advantage of being cheaper for pension providers, due to economies of scale, and these savings should be required to be passed on to pension savers, as is the case in the contribution-neutral compulsory Swedish Premium Pension.[986] It is recommended that contributions are taken as payroll deductions, since under such a regime pension savers are less likely to opt out than if contributions are taken from members' net pay.[987] LE Europe's view is that centralised administration should be pursued if feasible because of the positive effect it would have on reducing compliance costs among employers.

Recommendation 23: To provide easy access to costs and charges information

Ease of access to costs and charges information is a best practice recommendation because of a study highlighting how mutual fund providers have an incentive to make accessing such information more difficult.

LE Europe's view is that if such information were to be easily accessed, it could encourage intermediaries to collate and compare the information across multiple schemes. It should be noted, however, that making information easy to access is not a panacea and its effectiveness will depend on the extent to which savers and sponsors engage with that information and are able to make effective decisions on the basis of that information.

Providers should also be required to report costs and charges to NCAs on a regular basis (failure to do so could result in a loss of authorised provider status), with the NCA then consolidating this information.

Recommendation 24: To present costs and charges transparently

A transparent presentation of costs and charges information is a best practice recommendation in order for pension savers and sponsors to understand the costs and charges of their schemes. A

[985] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[986] See Sweden country fiche.

[987] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

transparent presentation includes reporting costs and charges in money terms (e.g., euros and cents), as well as in percentage terms, with simple accompanying text and graphical representations. IORP II requires providers to provide savers with an annual Pension Benefit Statement that contains key information about the saver's pension, including information about costs and charges. EIOPA has created two model Pension Benefit Statements, available at https://www.eiopa.europa.eu/content/model-pension-benefit-statements_en, that demonstrate the transparent presentation of costs and charges (and other important information) that this best practice calls for. Such information should be presented both annually and upon entering the auto-enrolment scheme.

LE Europe also suggest that all costs and charges (including for instance, management fees, administrative fees, and performance fees) with the exception of transaction costs should be aggregated. Transaction costs are excluded because the transaction costs will be reflected implicitly in the investment returns. Similarly, to the previous recommendation, the impact of transparent representation of information will be limited insofar as savers and sponsors do not engage with that information and insofar as they lack the financial literacy to act on it.

Recommendation 25: To have a governing board in the best interests of pension scheme members

The presence of a governing board that oversees the operation of the pension scheme - including its administration, investment strategies and communications with savers - in the best interest of members is a best practice recommendation. This can be achieved in schemes with different governance structures, including schemes with an institutional mode of governance, contract-based schemes, trust-based schemes (the latter being more common in countries, like the UK, that have an Anglo-Saxon legal tradition).[988] Countries introducing auto-enrolment should consider how best to ensure high-quality governance that has the powers to act in the best interest of savers in the scheme within the existing legal framework (including the IORP II directive in the European Union). One option for doing so that countries introducing auto-enrolment should consider is the inclusion of member representation in governance structures. Similarly, sponsor representation should be considered, especially in systems where the duty to select the provider in the auto-enrolment scheme lies with the employer as the sponsor.

LE Europe's view on governance is that it is very important to managing pensions because governance committees work with, and provide a check on the activities of, pension providers on behalf of savers whose interest would otherwise not be represented.

Recommendation 26: To design and implement solidarity clauses

Solidarity clauses in auto-enrolment schemes aim to support less advantaged scheme members, for instance through transfers from high-income groups to low-income groups. They are typically implemented through the public pensions system as well as through sector-based occupational schemes. As Member States begin to use auto-enrolment pensions in greater numbers, there is a concern to retain an element of redistribution from high-income groups to low-income groups through auto-enrolment schemes.

There are a number of challenges with implementing solidarity clauses in auto-enrolment pensions; among these are the following. High-income groups may opt-out in greater numbers in the presence of solidarity clauses, which has the twin effect of reducing pension participation among high-income groups and undermining the ability of solidarity clauses provide benefit to their target groups. Not all pension experts consulted in the identification of the best practices for an auto-enrolment scheme agree that an auto-enrolment scheme should include a solidarity element. Several argued that the role of redistribution in the pension system was reserved for the public pension system.

In view of the challenges described above, LE Europe offer two potential designs for solidarity clauses. LE Europe recognise, however, that the design of solidarity clauses will need to reflect various factors in the country and pension system in question.

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[988] See Stewart, F. and J. Yermo (2008), 'Pension Fund Governance: Challenges and Potential Solutions', *OECD Working Papers on Insurance and Private Pensions*, No. 18. Available at https://www.oecd.org/pensions/private-pensions/41013956.pdf.

Employer and government contributions for those earning below the earnings trigger

In order to attenuate the impacts of an earnings trigger – if one is implemented, as is recommended above – on socio-economically disadvantaged groups, including women, a solidarity clause could involve government and employer contributions to an account within the auto-enrolment scheme for those who are excluded from 'full' auto-enrolment by the earnings trigger. Government and employer contributions do not reduce the amount of money available to the saver contemporaneously (as employee contributions do). Requiring employers to contribute to low-wage workers' pensions would raise the cost of their employment, however.

A levy on providers to fund solidarity payments

Another solidarity feature which could be considered is a levy on auto-enrolment pension providers that would be used by the state to help to fund statutory minimum old-age benefits. The levy would take the form of an annual fee paid by providers in order to service the auto-enrolment pensions market and access to a large number of consumers and economies of scale that it brings, similar to the fee rebate required in Sweden's premium pension system. The size of the levy will likely be related to the benefits of the economies of scale offered by the auto-enrolment pensions market (including lower administrative and trading costs compared to other pension sectors) and therefore the number of pension providers. As the size of the levy is related to the number of authorised pension providers, regulators and other competent authorities should factor this in when setting their authorisation regimes. As scheme members will likely benefit from having an auto-enrolment pension compared to other types of pensions because of its scale, the levy should not mean that participation becomes incentive-incompatible for high-income groups. Using the proceeds from the levy to help to fund statutory minimum old-age benefits as opposed to solidarity payments within the auto-enrolment scheme is proposed so as not to preclude low-income workers who opt out or are otherwise excluded from the auto-enrolment scheme from receiving the payment.

LE Europe's view is that solidarity clauses have an important redistributive role. However, the design of solidarity clauses must be carefully considered because of the risk to participation rates they pose.

Recommendation 27: To have measures that avoid the proliferation of small pots

The presence of a policy measure to avoid the proliferation of small, deferred defined contribution pots that does not rely on active consolidation by the member is a best practice recommendation. Especially under auto-enrolment, there is a risk of a proliferation of small, deferred pots as workers move from one employer to another, something workers are likely to do with increasing frequency (although the extent to which this is true is likely to vary considerably between Member States and between sectors).[989] A proliferation of small pots is undesirable for several reasons. Because of their size, small pots may be uneconomical for providers to administer.[990] From the saver's perspective, small pots are prone to erosion by charges, especially by flat fees.[991] Small pots are also harder for members to keep track of, which may lead to small pots being unclaimed.[992]

Policy measures that avoid the proliferation of small pots without action by the member can be complemented by solutions that help members to consolidate small pots themselves, such as pension tracking systems described in section 4.4.5 above. However, the latter type of solution can play only a complementary role in addressing the problem of small pots because of the inertia and lack of engagement displayed by most members in an auto-enrolment context.

One policy measure to avoid the proliferation of small pots is the implementation of a 'pot follows member' design in which workers automatically carry forward their pension pots with them to the

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[989] Pensions Policy Institute (2020), 'Policy options for tackling the growing number of deferred members with small pots'. Available at https://www.pensionspolicyinstitute.org.uk/media/3545/20200723-deferred-members-final-report-for-the-website.pdf.

[990] Small Pots Working Group Report (UK) (2020), December 2020. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945319/small-pots-working-group-report.pdf.

[991] Ibid.

[992] Ibid.

new provider upon a change of employer. There are a number of risks and challenges associated with the implementation of a 'pot follows member' model. 'Pot follows member' risks placing an administrative burden on providers (who tend to bear the administrative costs of transfers from one provider to another),[993] which may lead to higher costs for consumers. This risk is greater to the extent that data quality and availability is poor; when data quality and availability is poor, the time and resources required to match an individual to a pot is greater. There is also a risk that 'pot follows member' implies moving a saver's capital to a fund that is lower-performing or more expensive than the saver's previous fund[994]. This risk can be mitigated in several ways. The risk can be attenuated by charge caps and/or authorisation of providers by a regulator or other competent authority (as suggested below), and/or by a requirement that transfers preserve an equivalent investment strategy (as exists in France). Allowing members to actively opt-out from the 'pot follows member' transfers could also mitigate this risk, although this mitigation relies on engagement by the saver.

A 'lifetime provider' model, similar to that which is used in New Zealand,[995] is an alternative approach to avoiding the proliferation of small pots. A 'lifetime provider' model is one in which members generally remain with the same provider throughout their working life and scheme membership is focused on the individual rather than the employer level. A 'lifetime provider' model can be implemented in several different ways, including so-called voluntary, carousel and automatic designs.[996] The carousel and automatic designs are likely to be more suitable for an auto-enrolment scheme, since they are more compatible than the voluntary design with the principle of accommodating and making use of savers' inertia. The 'lifetime provider' model can imply administrative challenges. If the employer (as opposed to a body such as the tax office) is responsible for processing and distributing contributions to providers, the 'lifetime provider' model is likely to add to the administrative burden on employers.[997] The 'lifetime provider' model is easier to implement to the extent that there is good-quality, centralised data in the auto-enrolment system. There may be a role for a clearing house to help employers to channel contributions to different providers. The 'lifetime provider' model also has implications for the offerings and forms of competition in the market for schemes since providers will be targeting their offerings at members rather than at employers.

Whether a 'pot follows member', 'lifetime provider' or another model for avoiding the proliferation of small pots is appropriate will depend on the pre-existing pension system in the country in question. For instance, the 'lifetime provider' model is less likely to be appropriate in a pension system where the role of the employer in providing access to occupational pension schemes is well-established (as is the case in the UK and Sweden, for instance). It should also be noted that the extent to which the proliferation of small pots will be an issue in an auto-enrolment scheme in a particular country depends on several factors, including the frequency with which workers move employers and the extent to which pension schemes operate at the sector level rather than at the

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[993] Pensions Policy Institute (2021), 'How have other countries dealt with small, deferred member pension pots?'. Available at https://www.pensionspolicyinstitute.org.uk/media/3694/20210112-ppi-small-pots-international-report-final.pdf.

[994] Small Pots Working Group Report (UK) (2020), December 2020. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945319/small-pots-working-group-report.pdf.

It is, on the other hand, possible that 'pot follows member' could result in a transfer from a more expensive or low-performing fund to a cheaper or better-performing one. However, a policy-maker should not see the possibility of a transfer to a cheaper or better-performing as 'cancelling out' the possibility of a transfer to a worse-performing or more expensive fund. An automatic transfer that benefits the saver and an automatic transfer that harms the saver are not equivalent from the perspective of a policy-maker; there is an asymmetry between harms and benefits, especially when they may not be apparent to the saver. The policy-maker has a responsibility to protect the saver from potential harms even if the situation is neutral in expectations.

[995] Pensions Policy Institute (2021), 'How have other countries dealt with small, deferred member pension pots?'. Available at https://www.pensionspolicyinstitute.org.uk/media/3694/20210112-ppi-small-pots-international-report-final.pdf.

[996] Small Pots Working Group Report (UK) (2020), December 2020. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945319/small-pots-working-group-report.pdf.

Under the voluntary design, members are given the choice of whether or not to continue with their previous provider at each point they change employer throughout their career. Under the automatic design, members automatically continue with their previous provider at each point they change employer, unless they opt not to do so. Finally, under the carousel design, when a worker is first employed, he or she is able to choose a provider; if he or she does not, he or she is randomly allocated to a provider from the list of approved providers. He or she then automatically continues with that provider throughout their employment unless they actively choose to change provider.

[997] Small Pots Working Group Report (UK) (2020), December 2020. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945319/small-pots-working-group-report.pdf.

employer level. If plans operated on a sector-wide level, the proliferation of small pots would be much less, since many job changes occur within rather than between sectors.

Overall, LE Europe's view is that such measures are important to pension participation and savings because of a likely increased willingness to contribute during short-term employment stints and investment returns because small pots will not erode in value due to the impact of costs.

7.5. Recommendations regarding the decumulation phase

This section contains recommendations and suggestions concerning the decumulation phase, in which the pension saver converts the assets he or she has accrued over the accumulation phase into benefits to fund their retirement.

Recommendations regarding the decumulation of pension assets focus on designing the choice architecture for the decumulation phase such that it is consistent with the choice architecture in the accumulation phase, providing a default option to serve a wide range of needs, signposting advice to pension savers choosing alternative decumulation options, reviewing the advice sector and conditions for early access.

Recommendation 28: To design the transition from accumulation to decumulation

An overarching best practice recommendation for the decumulation phase, whose importance was highlighted by stakeholders, is to design the choice architecture in the decumulation phase in a way that is consistent with the accommodation and use of inertia in the accumulation phase, through *inter alia* the use of a default option for decumulation (as recommended below).

In LE Europe's view, after an accumulation stage that accommodates and makes use of consumers' inertia, savers should not be required to make active decisions at the decumulation phase. Choices at the decumulation phase are complex and the costs of sub-optimal decisions are potentially very large.

Recommendation 29: To have a default option

A best practice recommendation is to have a default decumulation option consisting of programmed withdrawals and a deferred life annuity for all but small savings balances. The rationale for such a default option is that the annuity component protects individuals from longevity risk, and a deferred life annuity (such that payments begin not at retirement age but at some later date) is cheaper, all else equal, than an annuity whose payments begin immediately since it covers only the tail of the longevity risk.[998] Meanwhile, a period of programmed withdrawals may be suitable to protect against purchasing an annuity at a time when it does not provide sufficient income because of low interest rates (conversion risk) and may provide retirees with greater flexibility.[999] Programmed withdrawals and/or annuities are observed in countries that specify decumulation options and these are either mandated, mandated contingent on the size of retirement balances, or incentivised, for instance through favourable tax treatment.[1000] LE Europe suggest that the default option be designed at the system level rather than by providers at the plan level.

In LE Europe's view, the presence of a default option at the decumulation phase is crucial given the role that inertia plays in the accumulation phase - savers may not have engaged with their pension through their working life and so may not have the capability to choose a decumulation option.

Recommendation 30: To have a signposting service for accessing advice

The presence of a free signposting service to access advice on decumulation options is a best practice recommendation because of the importance of advice to choose the right options for one's circumstances. A signposting service involves a point of contact referring people to relevant

[998] OECD (2012), 'The OECD Roadmap for the Good Design of Defined Contribution Pension Plans'. Available at https://www.oecd.org/finance/private-pensions/50582753.pdf.

[999] Ibid.

[1000] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

advisers but does not provide advice itself. LE Europe recommend that such a service is free at the point of use and operated by the state or by a state-established body so that it is independent of those providing decumulation offers.

In LE Europe's view, a free signposting service can help consumers to access and assess information about decumulation options. The impact of such a service will be limited to the extent that consumers, exhibiting inertia, do not make use of it, although there is evidence that 'nudges' can be used to increase its use.[1001]

<u>Recommendation 31: To review the advice sector via regulators</u>

The evidence in the literature highlights issues of conflicts of interest in the advice sector, which are pertinent to pension savers at the decumulation phase. As such, LE Europe recommend a review of private sector advice on decumulation to precede the introduction of new auto-enrolment pension schemes. The objectives of such a review would be to assess the effect of different forms of remuneration for advice on the quality and availability of advice, and to consider the need for other policy options, such as disclosure requirements, the development and promotion of robo-advice platforms, or the provision of advice by the state. Important issues for such a review to consider would include the transparency of the cost of advice (and the structure of that cost) and the extent to which advisors are accountable for the suitability of the advice they give.

LE Europe are of the view that such a review would be worthwhile but that its importance is attenuated by the fact that many consumers will not seek out advice and that there exists pan-European legislation on advice on the decumulation of pension assets.

<u>Recommendation 32: To allow pension savers to have early access to their pension pot</u>

A best practice recommendation is to allow pension savers to access their accumulated pension assets early under only certain circumstances such as critical illness and extreme financial hardship, which is a practice common to several schemes considered through the study. Allowing early access may encourage participation in and contributions to an auto-enrolment pension scheme.[1002] In addition, in circumstances of critical illness and extreme financial hardship, it is likely to be in the saver's best interests to allow them early access to their pension savings. However, if savers make excessive use of early access, this can undermine the adequacy of their pension; here, the role of the auto-enrolment pension scheme in the pension system more broadly is important. Another reason why early access should be limited only to these particular circumstances is that early access implies administrative costs for providers. In addition, if greater early access were allowed, this would imply a greater need for liquidity in the investments underlying savers' pensions and savers would lose out on some of the premium associated with investing in illiquid assets. Finally, early access should be limited given that pension contributions and investment returns often enjoy tax incentives on the grounds that the state wishes to encourage saving for use post-retirement.

A range of policy options exist for early access models. One option is a feeder fund model in which contributions below a fixed ceiling go first to a liquid sub-account and contributions exceeding that ceiling go to the pension account. An attractive feature of this option is that it mobilises auto-enrolment, and the inertia underpinning it, to help build levels of financial resilience (which are low even in many wealthy countries). Another option is a 'loans and withdrawals' model, in which early access is permitted as a permanent withdrawal in cases of hardship and otherwise as a loan on which interest is payable. Such a model increases the complexity of the scheme and may be costly for providers to administer, but this latter risk will be mitigated insofar as early access is permitted only in particular circumstances, as recommended. At any rate, it is recommended that the early access model is shared across the auto-enrolment scheme, as opposed to being decided by individual providers, in order to reduce complexity and to ensure that all savers have the same entitlements in this regard.

In LE Europe's view, allowing pension savers early access to their pension assets under only certain, limited circumstances will not have a significant impact on participation or savings (or on returns) because savers are unlikely to be aware of and weigh rules on early access in an active

[1001] Department for Work & Pensions (UK) (2021), 'Stronger Nudge to pensions guidance', *Open consultation*. Last updated 12th July 2021. Available at https://www.gov.uk/government/consultations/stronger-nudge-to-pensions-guidance/stronger-nudge-to-pensions-guidance.

[1002] Ibid.

decision about whether, and how much, to save in an auto-enrolment scheme. However, such early access rules permit early access in circumstances when it is prudent from the saver's perspective but prevent the use of early access in a way that threatens adequacy.

7.6. Best practices scoreboard

This section presents a scoreboard for the best practices listed and described in sections 7.1 to 7.5 based on the views of LE Europe as well as the experts and stakeholders that were consulted as a part of the study.

The evaluation of AE practices should be considered from various aspects. A multi-criteria analysis (MCA) is used to produce a ranking of the best practices identified above. MCA allows for the synthesis of multiple qualitative and quantitative assessment criteria to produce an overall assessment of different policy options. It is used to reveal coherent preferences in cases where analysis based on a single criterion is not appropriate. The MCA ultimately produces a ranking of different policy options from most to least preferred based on the assessments of a range of stakeholders.[1003] A detailed description of the methodology is provided in section 10.4.2.

The criteria against which each best practice is assessed includes:

- The relative importance of each AE practice;
- What the impact of each AE practice would be (if it was implemented) in terms of:
    - Participation;
    - Pension savings; and,
    - Performance (in terms of returns).

Scores for each of these four criteria were produced based on LE Europe's assessment, which was informed by the desk research and consultations with a wide range of stakeholders, as well as scores collected using an online survey of a range of stakeholders.[1004] These scores are then normalised and weighted using criteria weights before performing the MCA. Each practice is ranked amongst the subset of best practices relating to the implementation of an auto-enrolment pension scheme and to each stage of the individual saver's 'journey' that is outlined above.[1005] This allows the criteria weights to vary for each stage and removes potential bias in the rankings as a best practice may be better assessed against a selection of the evaluation criteria. For example, more weight may be given to the criterion assessing the impact of the AE practices on participation when considering the best practices classed as relating to the 'participation decision' stage. Detailed information on the scoring strategy and determining the scoring and criteria weights are provided in section 10.4.2 of Annex 1. LE Europe's scoring and average scores collected from the survey questionnaire are presented in Annex 5.

Table 13 presents the ranking of best practices for each of the five groups of best practices based on the MCA method of Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS).[1006] To overcome the arbitrary differences between scores generated by the MCA analysis, the best practices are grouped into three categories assessing their relative importance and impact on the key performance measures. A "high" ("low") assessment score for a best practice means that it is *relatively* more (less) important and/or has a higher (lower) impact on the performance measures. It is also important to note that the scoreboard does not imply a 'one-size-fits-all' as some best practices are generic and others are driven by policy choice which need to be considered in the national context.

Taken together, the scoreboard provides pension policymakers with a recommended list of practices when introducing an auto-enrolment pension scheme. Higher ranked practices may be

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[1003] Department for Communities and Local Government (2009). 'Multi-criteria analysis: a manual', published January 2009. Available at http://eprints.lse.ac.uk/12761/1/Multi-criteria_Analysis.pdf.

[1004] The baseline MCA results place equal weight on LE Europe's assessment scores and those collected from the survey of stakeholders. A sensitivity analysis is undertaken where these weights are changed.

[1005] Namely, (1) the participation decision, (2) fund choice during the accumulation phase, (3) contributing and growing entitlements within funds during the accumulation phase and (4) the decumulation phase.

[1006] See section 9.4.2 for technical details on the TOPSIS MCA method.

deemed more conducive in contributing to the overall success of an AE pension scheme and hence, income maintenance in old age. All, though, are deemed to be best practices.

As a sensitivity check, the MCA was repeated using different scoring weights for LE Europe's scoring and those collected from the online survey as well as using equal criteria weights across all four evaluation criterions. The rankings remain largely unchanged when these changes are made. The results from the sensitivity analysis are provided in Table 44 in Annex 5.

Table 13 Best practices scoreboard

Best practices	Relative assessment score[1]
Implementation of auto-enrolment pension schemes	
Establish consensus	High
Define policy goals	High
Risk-based supervision	Medium
Information campaigns	Medium
Phased introduction	Low
Participation decision	
Mandatory access provision	High
No waiting period (minimum tenure requirement)	High
Employer contributions	High
Automatic re-enrolment	Low
Fixed government contributions	Low
Voluntary opt-in	Low
Minimum eligible age of at most 18 years old	Low
Inclusion of self-employed workers	Low
Earnings triggers	Low
Accumulation phase: Fund choice	
The presence of a default investment strategy (or 'default fund')	High
Default fund features - capped cost, use of life-cycle investment strategies, no joining fee	High
Competent Authority authorisation of providers	Medium
Establishment by the state of a low-cost provider	Low
Constraint on the number of investment strategies (also known as 'funds') offered per provider	Low
Accumulation phase: Growing entitlements within funds	
Transparent presentation of costs and charges	High
Governance in the best interests of pension scheme members	High
Ease of access to costs and charges information	High
Default contribution rates	High
Measures to avoid the proliferation of small pots	High
Centralised administration	Medium
Contribution holidays	Low
Design and implementation of solidarity clauses	Low

Best practices	Relative assessment score[1]
Decumulation phase	
The transition from accumulation to decumulation	High
Default option	High
Early access	Medium
Signposting service for accessing advice	Low
Review of advice sector by Competent Authorities	Low

Note: [1] The relative assessment score is separated into three groups which were informed by the performance score for each best practice that were calculated using the MCA TOPSIS method. High = High importance and/or impact, Medium = Medium importance and/or impact and Low = Low importance and/or impact. Scores are relative so a "Low" score should be considered relative to a "High" score. See section 10.4.2 for further details on the methodology.

8. CONCLUSION

This study identifies a set of best practices in automatically enrolling workers to pension schemes and presents a scoreboard that assesses each of these best practices in terms of their overall importance in the functioning of an auto-enrolment pension scheme and their impact on participation, pension savings, and financial performance (in terms of returns to pension savers). The identification of these best practices was informed by a detailed qualitative and quantitative assessment of the existing evidence and by consultations with experts and stakeholders. The study focuses on practices which could be implemented across different pension landscapes to secure adequate retirement incomes for EU citizens in the future.

A mixed-methods approach was used to determine which conditions for auto-enrolment mechanisms are most conducive to contributing to income maintenance in old age.

The first task involved a detailed review of the principal sources of information to identify the key features of auto-enrolment schemes and build an understanding of how such schemes interact with other parts of the national pension system (including statutory pensions, other occupational schemes (where applicable) and personal pensions). The desk research was further enriched with consultations with experts and stakeholders across different EU and non-EU jurisdictions.

The second task combined the desk research and stakeholder consultations to develop in-depth country case studies (in selected EU and non-EU jurisdictions) analysing more positive and less positive experiences with the introduction of auto-enrolment pension schemes. These case studies covered Italy, New Zealand, Poland and the UK. They highlighted the importance of both design features within the auto-enrolment scheme and contextual factors.

The third task examined the impact of auto-enrolment on contributions and participation in supplementary pension schemes using econometric methods. More specifically, a dataset of countries was used to assess the impact of auto-enrolment (and other types of mechanism) in occupational pension schemes on pension contributions and participation in such a scheme. The results suggest that the introduction of auto-enrolment is negatively associated with average contributions, but positively associated with participation. The negative relationship between average contributions and the introduction of auto-enrolment could potentially be explained by a composition effect, according to which members of auto-enrolment schemes may, on average, have lower incomes and therefore contribute lower amounts, or a design effect, whereby default contribution rates are initially set low in order to minimise opt-outs.[1007]

In addition, individual-level data for Italy is used to estimate the impact of the introduction of auto-enrolment on contributions to other pension plans (i.e., whether there is a substitution effect away from personal pensions when auto-enrolment is introduced). The findings suggest that the introduction of auto-enrolment in Italy was not associated with a substitution away from personal pension plans amongst private sector employees.[1008]

Based on the outcomes of the first three tasks, LE Europe assessed and scored the key features of auto-enrolment in terms of their overall importance for the functioning of an auto-enrolment pension scheme, as well as their impact on participation, pension savings, and financial performance (measured in terms of returns to pension savers). Combined with the views of experts and stakeholders in the pensions arena, a final scoreboard is derived using a multi-criteria analysis, which synthesises assessments based on multiple criteria to produce an overall ranking of best practices for an auto-enrolment scheme.

The final scoreboard, presented in Table 14, is segregated into three groups which rank the best practices in terms of their relative importance and impact on the key performance measures (participation, savings and returns). That is, the scoreboard provides a relative assessment of which of the best practices are likely to be more conducive in contributing to the overall success of an AE pension scheme (and hence, income maintenance in old age). It should be noted that even

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1007 It should be noted, however, that these results are estimated on a dataset that only contains a limited number of countries where auto-enrolment was in place during the reference period of the econometric analysis (only Italy and the United Kingdom), meaning that estimates are based on a low amount of variability in the key explanatory variable. Therefore, these results should be interpreted with caution.

1008 It was not possible, though, to identify exactly those individuals in the dataset who were subject to auto-enrolment. Moreover, substitution effects with other savings vehicles may have been present. Hence, caution should be exercised in concluding that no substitution effects were present.

those with a 'low' relative assessment score are deemed to be best practices. It is also important to note that the scoreboard is not meant to imply a 'one-size-fits-all' approach and several best practices are sensitive to the particular national context.

Table 14 Best practices scoreboard

Best practices	Description	Relative assessment score[1]
Establish consensus	A consensus should be established amongst political actors, social partners and other stakeholders around (i) the goals of the AE system and (ii) how the AE system is implemented.	High
Define policy goals	The objectives of the auto enrolment pension scheme in terms of which groups it will target in particular and the role it will play in providing an adequate income in retirement within the context of the wider national pensions system as well as the particular economic, financial, social, and demographic conditions in the country in question should be set.	High
Mandatory access provision	Employers should be required to grant access to an auto-enrolment pension scheme to their employees.	High
No waiting period (minimum tenure requirement)	Employees should not be required to have worked for their employer for a certain amount of time (for instance, for at least a year) in order to be in scope for auto-enrolment.	High
Employer contributions	Employer contributions to the auto-enrolment scheme should be mandated. Employer contributions as a fixed percentage of the employee's salary (as opposed to employer contributions that 'match' the employee's contributions) should be mandated.	High
The presence of a default fund	There should be a default fund in the auto enrolment pension scheme. A default fund would serve those savers in the auto-enrolment scheme who do not make an active choice of fund.	High
Default fund features - capped cost, use of life-cycle investment strategies, no joining fee	The default fund should have: (i) a capped cost (with the level of the cap being set based on an assessment by the Competent Authority), (ii) a life-cycle investment strategy, and (iii) no joining fee.	High
Transparent presentation of costs and charges	Costs and charges information should be presented in a manner that is easy for savers and sponsors to understand. A transparent presentation includes, for instance, reporting costs and charges in money terms (e.g., euros and cents) as well as in percentage terms, with simple accompanying text and graphical representations.	High
Governance in the best interests of pension scheme members	There should be a governing board that oversees the operation of pension schemes in the best interest of members.	High
Default contribution rates	Default contribution rates should be low initially (to avoid encouraging opt-outs), and escalated subsequently (in order to increase the amount of saving through the scheme). The level to which default contribution rates eventually rise should depend on the role the auto-enrolment scheme is meant to play within the wider pension system in providing sufficient income for retirement.	High
Measures to avoid the proliferation of small pots	A policy measure should be implemented which avoids the proliferation of small, deferred pots. Several designs for such a policy measure exist, including the 'pot follows member' and 'lifetime provider' models.	High
The transition from accumulation to decumulation	The choice architecture of the decumulation phase should be designed so that it is consistent with the choice architecture, which accommodates consumer inertia, in the accumulation phase.	High
Default option	A default decumulation option should exist, consisting of programmed withdrawals and a deferred life annuity for all but small savings balances.	High

Best practices	Description	Relative assessment score[1]
Ease of access to costs and charges information	Savers and sponsors should have easy access to costs and charges information.	High
Information campaigns	A National Pension Communications Campaign aimed at savers and sponsors should be conducted ahead of the introduction of auto enrolment to raise awareness of: (i) the AE scheme, (ii) the importance of pension saving, and (iii) their obligations under auto-enrolment.	Medium
Risk-based supervision	A supervisory framework empowering risk-based supervision should be established, if this is not already present. Risk-based supervision is defined as 'a structured approach which focuses on the identification of potential risks faced by pension plans or funds and the assessment of the financial and operational factors in place to minimise and mitigate those risks. This process then allows the supervisory authority to direct its resources towards the issues and entities which pose the greatest threat'. Risk-based supervision allows regulators to make the most efficient use of their resources.	Medium
Phased introduction	Auto enrolment should be introduced in a phased manner, staggered by employer size (with larger employers falling into scope before smaller employers).	Medium
Authorisation of providers by regulators	Only providers authorised by regulators or other competent authorities should be permitted to serve the auto-enrolment scheme.	Medium
Centralised administration	Administration and processing of pensions contributions should be performed on a centralised basis if feasible.	Medium
Early access	Pension savers should have access to their accumulated pension assets early only under certain defined circumstances such as critical illness and extreme financial hardship.	Medium
Voluntary opt-in	Those who are excluded from the scope of the auto-enrolment scheme (for instance, those who earn below any earnings trigger) should be allowed to voluntarily opt-in to the scheme.	Low
Inclusion of self-employed workers	Self-employed workers should be included within the scope of auto-enrolment if there is a body, such as a Chamber of Commerce or professional association, that is able to perform the function of automatically enrolling these workers. Otherwise, other solutions may be used, such as the use of fiscal incentives and the promotion of 'saving through consumption' platforms (that automatically save a fraction of the value of an individual's consumption purchases) to encourage voluntary private pension saving amongst self-employed workers.	Low
Automatic re-enrolment	Those who have opted out from the auto-enrolment scheme should be automatically re-enrolled (again with the option to opt out) at regular intervals (for instance, every three years).	Low
Fixed government contributions	Government contributions should be implemented as a non-tax financial incentive for participation, and those government contributions should be fixed in value rather than calculated as a percentage of gross salary or 'matched' to the level of the saver's contribution.	Low
Minimum eligible age of at most 18 years old	There should be a minimum age of eligibility for auto-enrolment, which should not be higher than 18 years old.	Low
Earnings triggers	Only those who earn over a certain income threshold – the level of the 'earnings trigger' – should be subject to auto-enrolment. Moreover, the level of such an earnings trigger should be set at the level of a pre-existing trigger in the tax and social security system that will already be built into payroll systems.	Low
Constraint on the number of investment strategies (also	The number of investment strategies offered per provider should be limited.	Low

Best practices	Description	Relative assessment score[1]
known as 'funds') offered per provider		
Establishment by the state of a low-cost provider	A low-cost provider for the auto-enrolment scheme should be established, similar to Nest in the UK or AP7 in Sweden's contribution-neutral compulsory premium pension system.	Low
Contribution holidays	Contribution holidays, which allow pension savers to pause their contributions when facing personal challenges, should be permitted; however, contributions should restart automatically at the end of a holiday.	Low
Design and implementation of solidarity clauses	Any solidarity clauses (e.g. clauses involving transfers to low income groups) in the auto-enrolment scheme should be designed in a way that: (i) reflects the particularities of the country and pension system in question, and (ii) is incentive-compatible for higher earners.	Low
Review of advice sector by regulators	Regulators or other competent authorities should conduct a review of private sector advice on decumulation options to precede the introduction of new auto-enrolment pension schemes. The objectives of such a review would be: (i) to assess the effect of different forms of remuneration for advice on the quality and availability of advice, and (ii) to consider the need for other policy options, such as disclosure requirements and the development of robo-advice platforms.	Low
Signposting service for accessing advice	A free signposting service, which would refer savers to relevant advisers without providing advice itself, should be introduced that is operated by the state or by a state-established body, so that it is independent of those providing decumulation offers.	Low

Note: [1] The three groups were informed by the performance score for each best practice that were calculated using the MCA TOPSIS method. High = High importance and/or impact, Medium = Medium importance and/or impact and Low = Low importance and/or impact. Scores are relative so a "Low" score should be considered relative to a "High" score.

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Act CLXVII on the Abolition of Early Retirement Pensions, Early Retirement Benefits and Remuneration, 2011 (évi CLXVII. törvény a korhatár előtti öregségi nyugdíjak megszüntetéséről, a korhatár előtti ellátásról és a szolgálati járandóságról), available at https://njt.hu/jogszabaly/2011-167-00-00.

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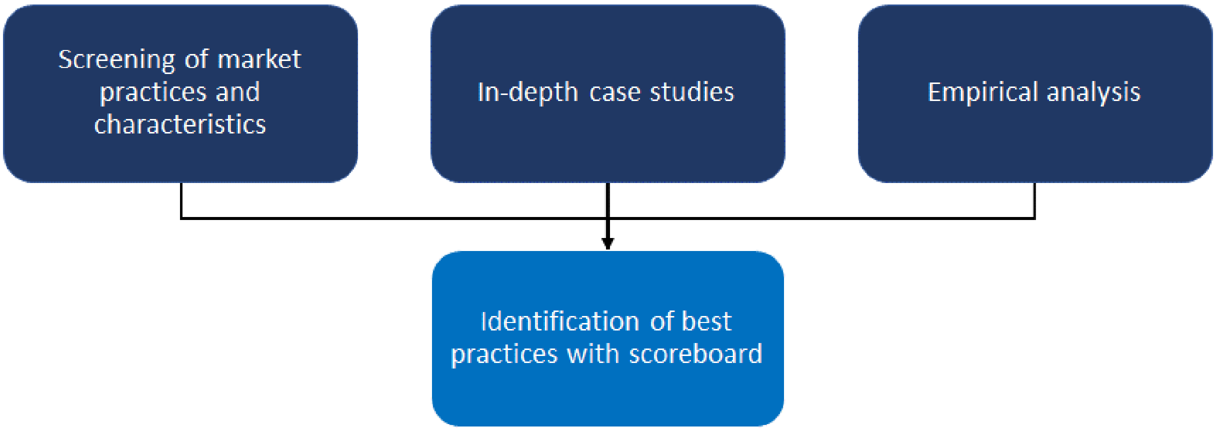
10. Annex 1 - Methodology

This annex chapter outlines the methodological approach that was used to identify the practices of auto-enrolment (AE) schemes that are most conducive to contributing to income maintenance in old age. At a high-level, the approach consisted of four key tasks (illustrated in Figure 1); namely:

1) Identifying key features of auto-enrolment schemes and how they interact with other parts of the national pension system, including statutory pensions, other occupational schemes (where applicable) and personal pensions.
2) Developing in-depth country case studies (in selected EU and non-EU jurisdictions) highlighting positive and negative outcomes of introducing auto-enrolment pension schemes.
3) Empirical analysis examining the impact of auto-enrolment on contributions and participation in such pension schemes.
4) Based on the outcomes of tasks 1-3 and the views of experts and stakeholders in the pensions arena, identify a list of best practices in developing effective and sound auto-enrolment mechanisms with a scoreboard assessing how key features of AE schemes perform in terms of participation, pension savings, and financial performance (in terms of returns to pension savers).

Figure 1 Outline of methodological approach



The approaches used to address each task are described in detail below.

10.1. Screening of market practices and characteristics of auto-enrolment pension schemes

A mixed-methods approach was used to identify the relevant characteristics of auto-enrolment schemes as well as their impact on coverage and savings in such pension schemes over time. Moreover, these features were compared with similar policy approaches across different EU and non-EU jurisdictions to assess the conditions which may boost coverage rates and savings levels. The methods used include an extensive literature review, market data collection, stakeholder interviews and academic peer review. Wherever possible, the findings using the different methods were triangulated and validated through a team of pensions consultants and academics. The purpose of each method is discussed in detail below.

In the first instance, the research was used to develop a taxonomy of the different policy approaches used in designing pension schemes. This taxonomy distinguishes between auto-enrolment approaches and alternative approaches, such as contribution-neutral auto-enrolment, voluntary opt-in schemes and schemes based on collective bargaining. Moreover, it classified the different types of schemes (occupational and personal) that exist within each of these approaches. The taxonomy is presented in chapter 2.

10.1.1. Literature review

The literature review provided an in-depth understanding of the economic and legal pre-conditions and pre-requisites for the introduction of auto-enrolment mechanisms into pension schemes, especially in countries in which capital markets are less developed. Information on this subject was collected from literature generated both prior to and during the introduction of auto-enrolment schemes. Literature in the form of government documents, consultation evidence from interested stakeholders, commentary from professional services and law firms, and academic research were considered.

More generally, the literature review process involved four steps. These were:

1) Development of parameters and identification of potential sources;
2) Development and application of exclusion criteria and initial filter of articles;
3) Coverage assessment;
4) Full scale review of articles selected for inclusion.

The academic experts and team of pensions consultants supporting the project team were used to identify potential evidence gaps that may emerge from the literature review as well as to peer review the information collected throughout the study.

10.1.2. Market data collection

For the purposes of this study, market data is defined as information on the key features or set of rules on which auto-enrolment and other approaches are designed. Market data was collected in the first instance on a country-by-country basis covering information on the scope of auto-enrolment (or other) pensions, coverage rates, statutory minimum and actual contribution rates, tax and other incentives, introduction timeframes, conditions for opting out, key accumulation and decumulation conditions, the performance of underlying investment vehicles, interaction with other pension system tiers, existence of transition mechanisms and the presence and workings of solidarity clauses.

A wide range of information sources were used (including those identified from the literature review), with a focus on original source documents. National legislative and regulatory texts were used to understand the interactions of auto-enrolment approaches with other pension tiers and to identify the existence and workings of solidarity clauses.

In addition, information on the performance of the underlying investment vehicles was sourced from individual pension funds. This was particularly important to ensure that performance figures are net of costs / fees and to check for any other assumptions made in the reporting that affects comparability across pension funds and countries. For instance, many pension funds offer age-based asset allocation but will only report performance figures for particular ages (e.g., 25, 40, 55).

The outputs from the market collection exercise were used to compare and contrast auto-enrolment and other pension schemes in EU and non-EU jurisdictions (see chapter 4). In-depth country assessments are provided in the format of a fiche (see Annex 3).

10.1.3. Stakeholder interviews

Following the market data collection exercise, stakeholder interviews were carried out to validate the data collected and fill information gaps.

The rationale for the stakeholder interviews was threefold. Firstly, the scope of the study included both current and past pension schemes, and preliminary research showed that it was significantly more challenging to collect historic market data, particularly on schemes that have ceased to exist, so stakeholder interviews were undertaken to validate historic market data and collect information where it is missing. Secondly, the availability of market data was variable across countries, which was another reason for consulting stakeholders. Thirdly, the country assessments required consideration of open-ended questions, such as on the preconditions and pre-requisites for introducing auto-enrolment pensions and their impacts on savings, which evidence gathered through the stakeholder interviews would help to answer.

Up to four stakeholders per country were interviewed, including National Competent Authorities, market participants (including pension fund managers, other asset managers and insurers providing pension products), business associations, consumer associations and trade unions. NCAs and market participants provided information complementary to market data - where historical data or data for particular countries was missing, as described above. Meanwhile, business and consumer associations and trade unions provided the perspective of pension holders to ensure the stakeholder consultation exercise provided a balance of perspectives.

Interviewees were provided with the relevant country fiche ahead of the interview. The interview was semi-structured and began with the validation of the information in the fiche and filling any information gaps and our understanding. The interviews then discussed more open-ended questions, focusing on different areas according to the type of consultee. Providing the fiche in advance allowed the interviews to be more focused and therefore, generate more value in the time allowed. Details on country-specific questions are provided in Annex 4.

Interviews ranged between 30 to 45 minutes in length and were led by one of the economists on the LE Europe team. The interviews were conducted by video-conference. Table 15 summarises the consultation process for this task with country questionnaires and a list of stakeholder consultees provided in Annex 4.

Table 15 Summary of consultations

Type of consultee	Consultation method	Number to be contacted	Minimum targeted number of responses
NCAs and relevant government departments	Telephone or video conference	25+	17, i.e., one per country
Pension fund managers, other asset managers, and insurers providing pension products	Telephone or video conference	50+	34, i.e., two per country
Business and consumer organisations and trade unions	Telephone or video conference	50+	34, i.e., two per country

As a final validation, the group of academic experts and pensions consultants that were part of the project team peer reviewed the information collected through the first task on screening market practices and characteristics associated with AE.

10.2. In-depth case studies

Building on the findings and outputs of the first task (see section 10.1), four in-depth case studies were produced of countries experiencing more positive and less positive outcomes of introducing an auto-enrolment pension scheme. Two additional short case studies are also presented.

In particular, two case studies of countries with a more positive experience of introducing auto-enrolment and two case studies of countries with a less positive experience of introducing auto-enrolment were considered.

A country is considered to have had a more positive experience of introducing auto-enrolment if it has seen low rates of people opting out from the auto-enrolment plans, notable increases in the coverage of supplementary and occupational pensions in the wake of auto-enrolment's introduction, and significant increases in the level of saving in supplementary and occupational pensions. Other indicators of a positive outcome include closing the gender pensions gap and improving pension provision amongst those on low incomes. By contrast, a country was considered to have had a less positive experience if it has seen high opt-out rates, insignificant (if any) increases in the coverage of supplementary and occupational pensions after auto-enrolment's introduction, and small (if any) increases in saving in supplementary and occupational pensions. If the pensions gender gap is aggravated or if those on low-incomes are excluded from a country's auto-enrolment mechanism, that suggested that the country in question had a negative experience of introducing auto-enrolment.

As with the first task, a mixed methods approach was used to produce the in-depth country case studies, that is, the use of market data, stakeholder interviews, and literature review. These methods were used, where possible, together in order to validate the findings.

Up to eight interviews per country that is the subject of a case study were held; up to four additional interviews per country plus the four conducted for the first task. The four interviews conducted initially included NCAs, market participants (including pension fund managers and insurers providing pension products) and consumer associations. Additional interviews included one further stakeholder from the group of market participants, as well as an academic (in addition to those in our expert panel). This elicits a variety of perspectives on what explains countries' differing experiences of auto-enrolment. Further, academics have a deep and broad understanding of the pension system in their countries of expertise and of pension reforms and the context in which they happened. They were therefore well placed to help evaluate which factors were most important in the success or failure of auto-enrolment in the country.

These consultations were used to validate the findings and to gain further insights through a series of open-ended questions.

The market data collected was used to complement the quantitative evidence in evaluations and impact assessments of auto-enrolment schemes identified in the literature review. It was used to investigate impacts of auto-enrolment on coverage, pension savings and pension adequacy on particular groups (with respect to factors including sex, earnings, and household composition) where these are not covered in the aforementioned evaluations and impact assessments.

The panel of experts supporting the study also peer reviewed the case studies produced. Their expertise in a broad range of pension systems allowed them to verify that our findings are accurate and that they identify the most important issues in the countries in question.

Each case study has the following structure:

- Overview of the country's pension system before the introduction of auto-enrolment and once auto-enrolment is introduced;
- Timeline of the introduction of auto-enrolment;
- Description of the characteristics of the auto-enrolment scheme;
- Evidence on the impact of the introduction of auto-enrolment;
- Qualitative evidence on the impact of the introduction of auto-enrolment;
- Looking forward (a discussion of likely developments in relation to the auto-enrolment scheme in the future);
- Lessons learned, drawing on what factors contributed to the success or failure of auto-enrolment in improving pension adequacy and coverage in the country in question.

The case studies also reflect key issues of interest to the research study, including AE practices: (i) in less developed capital markets and (ii) that benefit low-income workers. Advice from the team of academics and pensions consultants supporting the study was also sought on any other high-level issues that would warrant discussion. Three additional key issues were also considered, namely (i) a gender perspective, given the 'pensions gender gap' and the potential of AE in helping to close it, (ii) the costs of the introduction of auto-enrolment to employers and if these are passed on to employees, and (iii) consideration of contextual factors such as public perceptions, financial literacy, etc.

The country case studies are presented in chapter 5.

10.3. Empirical analysis

This section describes the approaches used to assess the performance of auto-enrolment pension schemes empirically. While the first two tasks (screening of practices and case studies) provide insights into the mechanisms relating to AE scheme characteristics and pensions outcomes from a qualitative perspective, the empirical analysis provides complementary evidence on the quantitative importance of AE scheme characteristics.

In summary, the following analyses were undertaken:

1) A descriptive analysis using cross-country aggregate pensions indicators across different types of pension schemes. In particular, a k-means cluster analysis is performed to determine whether there are clusters of countries that have certain similarities (within clusters) or differences (across clusters) for a given set of key pensions indicators, such as the net replacement rate, employer and employee contributions and coverage.[1009] This provides insights into the relative performance of AE against alternative policy approaches and if there are certain country groupings for which the various schemes work better or not.
2) An econometric analysis using country-level data to assess the impact of auto-enrolment in occupational pension schemes on pension contributions and participation in such a scheme. (i.e., the analysis will differentiate between the impact of countries that have introduced AE into occupational pension schemes and other countries with other types of pension schemes).
3) An econometric analysis using individual-level data for Italy to assess the impact of the introduction of auto-enrolment on contributions to other pension plans (i.e., the analysis examines whether there is substitution effect with personal pensions when auto-enrolment is introduced).

Chapter 6 provides details on the approach used, data sources, limitations of the analyses and the key emerging results. The k-means cluster analysis is provided in Annex 5.

10.4. Identification of best practices with scoreboard

This section describes the approach used to identify a final list of best practices and the strategy used to develop a best practice scoreboard, the objectives of which were to score and then rank the best practice recommendations.

10.4.1. Identifying a list of best practices

Initially, a preliminary list of best practices was developed by the project team that was informed by the literature review, market data collection and stakeholder interviews. This list was shared with a range of experts for feedback before running a facilitated workshop to gather the insights of a wide range of stakeholders. The aim of the facilitated workshop was to encourage debate and conversation between the stakeholders to derive a final list of best practices. It was intended that hearing ideas, encouragement and/or challenges from other stakeholders would prompt additional, or more considered, views from stakeholders.

A range of experts were considered (across NCAs, the pensions industry, business and consumer associations and academic institutions) to strike a balance between perspectives represented in the workshop. For geographic coverage, up to two experts per country (with AE currently in place) were invited for the workshop. A full list of participants is provided in Table 16 below.

Table 16 Workshop participants

Participant name	Organisation
Ambrogio Rinaldi	COVIP (Commissione di Vigilanza sui Fondi. Pensione)
Alessandra Caretta	COVIP (Commissione di Vigilanza sui Fondi. Pensione)
Antonello Motroni	Mefop
Arnaud Jacoulet	Association Française de la Gestion financière (AFG)
Carine Pilot-Osborn	EIOPA
Cornelia Schmid	aba (Arbeitsgemeinschaft für betriebliche Altersversorgung)
Darren Philp	Smart Pension (UK)
Dovile Sciukaite	Ministry of Social Security and Labour (Lithuania)

[1009] The k-means algorithm chooses clusters to minimise the variation within k clusters.

Participant name	Organisation
Istvan Kerenyi	Project expert
Johannes Geyer	DIW Berlin
Malgorzata Rusewicz	Polish Chamber of Funds and Asset Management
Manuel Peraita	Project expert
Matti Leppala	PensionsEurope
Michael Littlewood	Retired (formerly of the Retirement Policy and Research Centre at the University of Auckland)
Pablo Antolin	OECD
Peter Whiteford	Project expert
Robert Zapotoczny	PFR Portal PPK
Seda Peksevim	Centre of Excellence in Population Ageing Research (CEPAR) Boğaziçi University
Simone Miotto	PensionsEurope
Stéphanie Payet	OECD
Vedat Akgiray	Boğaziçi University
Verena Menne	aba (Arbeitsgemeinschaft für betriebliche Altersversorgung)
Vitalija Borunova	Ministry of Social Security and Labour (Lithuania)
Will Sandbrook	Nest Insight (UK)
Yves Stevens	KU Leuven
Patrice Muller Rohit Ladher Shaan Devnani Luke Pate Nicholas Robin Siôn Jones Charlotte Duke Tiffany Head	LE Europe project team
Diego Valiante Tatyana Panova Valdis Zakorskis Christoph Emsbach Violeta Ananieva-Schneider Mindaugas Valiulis	European Commission

The workshop was hosted virtually and facilitated by the LE Europe project team. Breakout sessions were used to encourage discussion and allow participants to share their views more easily. Group rapporteurs then provided feedback on the recommendations to all participants attending the workshop. A general discussion at the end of the workshop was used to allow participants to raise any issues that had not yet been covered in the discussion or in the preliminary list of best practices.

After the workshop, the preliminary list of best practices was revised by the project team and an updated list was shared with all participants, as well as experts who had been unable to attend the live workshop, to provide final validation of the recommendations that should be considered as best practices. The list was revised further in light of this second round of feedback, to arrive at a final list. This list is presented in chapter 7.

In addition to developing a list of best practices, detailed conclusions on four topics of special interest are also explored. Namely, (i) the importance of the local asset management/pension fund industry to the success of AE schemes, (ii) desirable characteristics of AE scheme providers, (iii) how low-income earners can benefit from AE schemes and (iv) the preconditions for successfully introducing a low-cost default fund in countries without them.[1010]

10.4.2. Scoreboard strategy

The multi-criteria analysis (MCA) method involved four steps outlined below and was conducted on the final list of AE best practices established above. The rationale for conducting the MCA on this list rather than on all AE practices encountered over the course of the study is two-fold. Firstly, it reduced the number of options that are considered in the MCA, making the process, and managing its outputs more feasible. Secondly, it is redundant to rank practices that have already been deemed not to be candidates for being best practices.

<u>Step 1: Identifying evaluation criteria</u>

The first step of the MCA was to identify the evaluation criteria. Four evaluation criteria are considered as part of the MCA, and a scale for each evaluation criterion is chosen. The criteria included:

- The relative importance of each AE practice;
- What the impact of each AE practice would be (if it was implemented) in terms of:
    - Participation;
    - Pension savings; and,
    - Performance (in terms of returns).

<u>Step 2: Evaluation of AE practices</u>

The second step of the MCA was to evaluate the AE practices against each evaluation criteria identified above. To derive a score for each practice, LE Europe assessed each evaluation criteria based on the desk research and consultations undertaken as a part of this study. This was supplemented by an online survey where all workshop participants, as well as experts who had been unable to attend the live workshop, were invited to participate. Each criteria question was designed to record a numerical score as follows:

1) Please rate the importance of *[Insert best practice]* on a scale of 1-10, where: 1 = Not important at all and 10 = Extremely important. In cases where the respondent did not consider the feature as a best practice, they were given the option to select "0 = Not considered a best practice".
2) In your view, if *[Insert best practice]* was implemented, how negative/positive would the impact be on participation? Please rate on a scale of 1 -5, where 1 = Extremely negative, 3 = neither negative nor positive, and 5 = Extremely positive.
3) In your view, if *[Insert best practice]* was implemented, how negative/positive would the impact be on pension savings? Please rate on a scale of 1 -5, where 1 = Extremely negative, 3 = neither negative nor positive, and 5 = Extremely positive.
4) In your view, if *[Insert best practice]* was implemented, how negative/positive would the impact be on returns? Please rate on a scale of 1 -5, where 1 = Extremely negative, 3 = neither negative nor positive, and 5 = Extremely positive.

In cases where the respondent had no opinion on any of the above questions, they were also able to select the option "No opinion". A total of 13 survey responses were collected.

LE Europe's scoring and the average scores gathered from the survey responses to these four questions for each best practice were then used to inform the scoring strategy implemented using the MCA method. Such scoring is often done on a scale between 0 and 1, with scores of 0 and 1 representing the least and most preferred feasible options, respectively.[1011] Conversion to a

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[1010] For technical reasons, these four points cannot be included in the MCA (owing, essentially, to their being aspects of the evaluation criteria described in section 9.4.2 that will be used in the MCA).

[1011] Department for Communities and Local Government (2009). 'Multi-criteria analysis: a manual', published January 2009. Available at http://eprints.lse.ac.uk/12761/1/Multi-criteria_Analysis.pdf.

strength of preference scale is important in making the scores associated with different criteria comparable. See step 4 for more details.

Step 3: Assessment of criteria weights and scoring weights

The third step of the MCA was to assess the criteria weights and weights applied to the scores given by LE Europe and the average scores collected from the online survey.

For the criteria weights, the first question provides the *relative* importance of each best practice in the functioning of an AE pension scheme. It is assigned half the weight (50%) when assessing the best practices. The remaining 50% is split amongst the other three questions which capture the potential impact of each best practice on key performance measures. Differences in the split of the remaining 50% are based on the five groups of best practices identified. More specifically, the following weights are used based on LE Europe's assessment.

Group	Importance	Impact on participation	Impact on savings	Impact on performance (in terms of returns)	Rationale
Implementation of auto-enrolment pension schemes	50%	16.7%	16.7%	16.7%	All three performance measures are likely to be taken into consideration when implementing an AE pension scheme; therefore, an equal weight is assigned to each when assessing best practices in this group.
Participation decision	50%	30%	10%	10%	More weight is placed on the scores associated with participating in an AE pension scheme for best practices in this group.
Accumulation phase: Fund choice	50%	10%	15%	25%	More weight is assigned to scores measuring the impact on savings and returns when considering best practices that affect the fund choice and growth of entitlements within funds.
Accumulation phase: Growing entitlements within funds	50%	10%	20%	20%	
Decumulation phase	50%	10%	10%	30%	More weight is assigned to scores measuring the impact on returns when considering best practices that may influence the decumulation phase.

Note: Weights are rounded to the nearest decimal.

For the scoring weights, the baseline MCA analysis assigns equal weight to LE Europe's scores and the average scores based on the survey responses.

Sensitivity analyses of the MCA results based on alternative criteria and scoring weights are also carried out.

Step 4: Ranking of AE practices

The final step was to select and implement the MCA method and aggregate the resulting scores to produce an overall ranking of AE practices. The Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) method is used to compare the AE best practices and establish a ranking based on the scores generated by the method. TOPSIS is a compensatory method which allows for trade-offs between the criteria (that is, a low score against one criterion can be offset by a high score against another), which is more suitable than non-compensatory methods that use defined cut-off values to determine the inclusion or exclusion of the best practices.

More formally, the TOPSIS method involved the following steps:

1) Calculate the average score from the survey respondents for each best practice and evaluation criteria. This is referred to as the evaluation matrix $(X_{ij})_{p\times c}$ consisting of *p* practices and *c* criteria and x_{ij} is the average score of each practice and criteria.
2) Normalise the matrix using the following formula: $n_{ij} = \frac{x_{ij}}{\sqrt{\sum_{k=1}^{p} x_{kj}^2}}$, where *i* = 1, 2, …, *p* and *j* = 1, 2, …, *c*.
3) Calculate the weighted normalised matrix: $a_{ij} = n_{ij} \times w_j$, where w_j is the weight given to the criterion.
4) Calculate the ideal best (V_+) and ideal worst (V_-) score for each criteria *j*.
5) Calculate the Euclidean distance between each practice *i* and the ideal worst (V_-) using the following formula: $S_{i-} = \sqrt{\sum_{j=1}^{c}(a_{ij} - v_{j-})}$ where v_{-j} is the ideal worst value for criteria *j*.
6) Repeat step (5) for the ideal best (V_+).
7) Determine the similarity to the ideal worst value for each practice *i* using the following formula: $P_i = {S_{i-}}/{(S_{i-} + S_{i+})}$. This is known as the performance score for practice *i.*

The output of this exercise provided a ranking of the list of best practices with a scoreboard. To overcome the arbitrary difference in the scores for each practice, the best practices were grouped into three categories based their overall performance score. A "high" ("low") assessment score for a best practice means that it is *relatively* more (less) important and/or has a higher (lower) impact on the performance measures. A "high" assessment score was given to a best practice with a performance score above 70, a "medium" assessment score was given to a best practice with a performance score between 50 and 70, and a "low" assessment score was given to a best practice with a performance score under 50.

The full set of results are presented in section 14.2 of Annex 5.

11. Annex 2 - Geographic coverage

The countries considered in this study cover 13 EU Member States and four non-EU jurisdictions. More specifically, the countries in scope are Canada, Croatia, Denmark, Finland, France, Germany, Hungary, Italy, Lithuania, the Netherlands, New Zealand, Poland, Romania, Spain, Sweden, United Kingdom, and the United States.

The selected countries contain those whose pensions systems include auto-enrolment schemes as well as those with different approaches (namely, mandatory, contribution-neutral compulsory and voluntary opt-in schemes[1012]). A broad geographical coverage is used and includes groups of countries that are comparable in the coverage and replacement rates of their pensions systems (see below for further details).

In particular, by observing auto-enrolment in countries with different demographics, economic profiles and pensions systems, the study provides a greater understanding of how auto-enrolment pension schemes have been configured within different operating environments. It also provides an assessment of how auto-enrolment pensions have performed with respect to improving coverage, increasing pension savings and pay-outs in these different contexts.

Moreover, including countries whose pensions systems include mandatory, contribution-neutral compulsory pensions and voluntary opt-in schemes, the study compares and contrasts the relative effectiveness of auto-enrolment solutions on pension outcomes. For example, the inclusion of countries with mandatory schemes will allow us to assess how the 'nudge' of auto-enrolment compares to compulsion with respect to participation rates and other measures of success. Contribution-neutral compulsory pensions are of interest because (*inter alia*) they require much of the same 'infrastructure' as auto-enrolment pensions do. Including pensions systems that feature voluntary opt-in schemes provide an assessment of how effective the 'nudge' provided by auto-enrolment is in improving coverage and the level of savings without the use of compulsion through mandatory contributions.

Figure 2 below displays coverage of the largest class[1013] of funded and private pension schemes (including, but not limited to, occupational and personal schemes)[1014] and aggregate replacement ratio[1015] in various EU pension systems. Aggregate replacement ratios are a measure of existing pension adequacy; the current level of adequacy of pensions within a country will affect individuals' incentives to save more in funded and private pensions, including auto-enrolment pensions. Existing coverage by funded and private pensions is of interest as it reflects the extent to which there is scope for auto-enrolment to boost coverage.

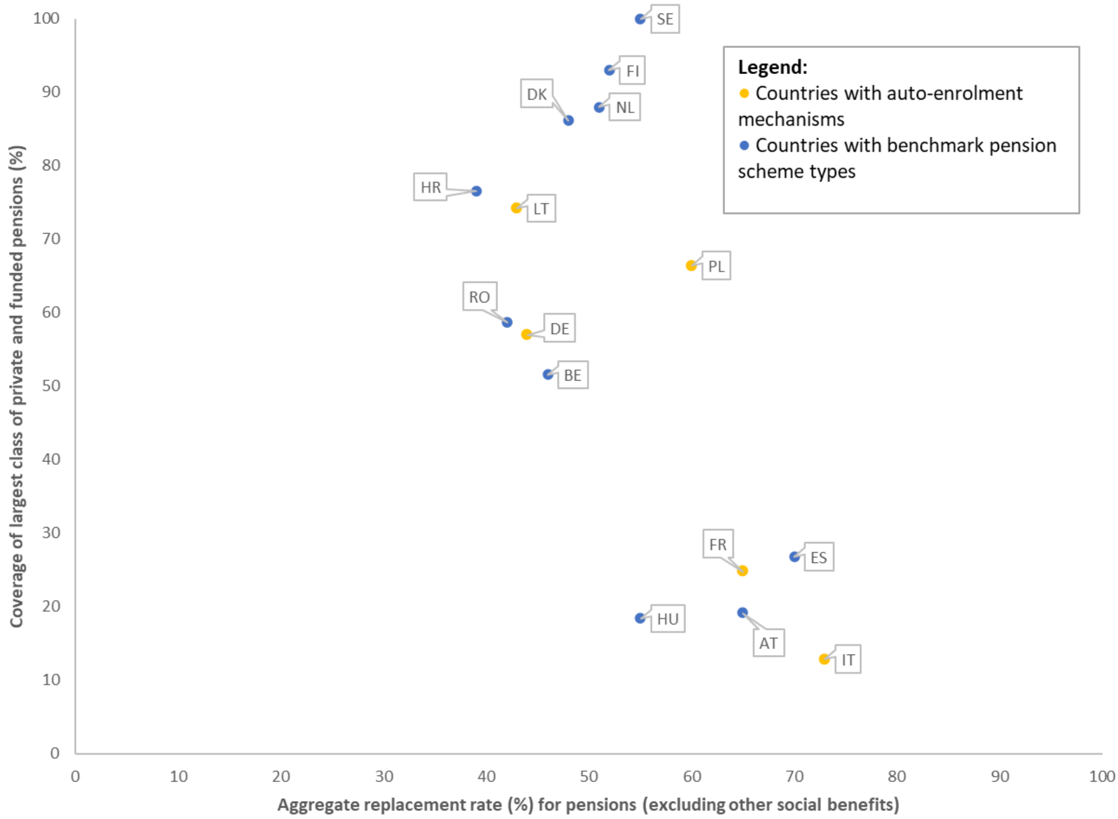
[1012] Section 3 provides a taxonomy of different auto-enrolment schemes and alternative policy approaches.

[1013] Coverage is expressed in most cases as a percentage of the working age population. See http://www.oecd.org/pensions/pensionmarketsinfocus.htm.

[1014] OECD coverage data gives coverage by 'Mandatory / Quasi-mandatory', 'Auto-enrolment', 'Voluntary occupational', 'Voluntary personal' and 'Voluntary (occ and pers)' schemes separately. One cannot obtain an overall coverage figure by summing these data, since there is overlap in who saves in each type of scheme but the data do not give insight as to what the extent of that overlap is. Hence, the chart presents coverage for the largest class of scheme in each country. The clusters are robust to plausible attempts at aggregating these coverage rates.

[1015] The aggregate replacement rate is 'gross median individual pension income of the population aged 65–74 relative to gross median individual earnings from work of the population aged 50–59, excluding other social benefits', which is expressed here as a percentage. See https://ec.europa.eu/eurostat/cache/metadata/en/ilc_esms.htm.

Figure 2 Scatter plot of coverage of largest class of funded and private pensions and net replacement rates in selected EU Member States of interest



Note: Data for Greece was not available in the coverage dataset and Greece is therefore omitted from the graph. Greece's aggregate replacement rate is around 76% while coverage of funded and private pensions is likely to be relatively low. It is not proposed for inclusion. Countries are identified by the EU two-letter country codes as defined here: https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Country_codes. Replacement rate data is for 2019 and coverage data is for 2019 or the latest available year.
Source: LE Europe analysis of Eurostat and OECD data

Broadly, one can observe three distinct clusters of countries. The first cluster is located in the bottom-right corner of the figure and comprises countries with high net replacement rates but relatively low coverage by funded and private pensions. Italy and Spain are amongst the countries in this group. The second cluster is of countries with moderate net replacement rates but very high coverage by funded and private pensions. Sweden, the Netherlands, and Denmark are amongst the countries in this group. The third (and least well-defined) cluster is of countries with relatively lower net replacement rates and moderate coverage by funded and private pensions. Countries in this group include Germany and Romania.

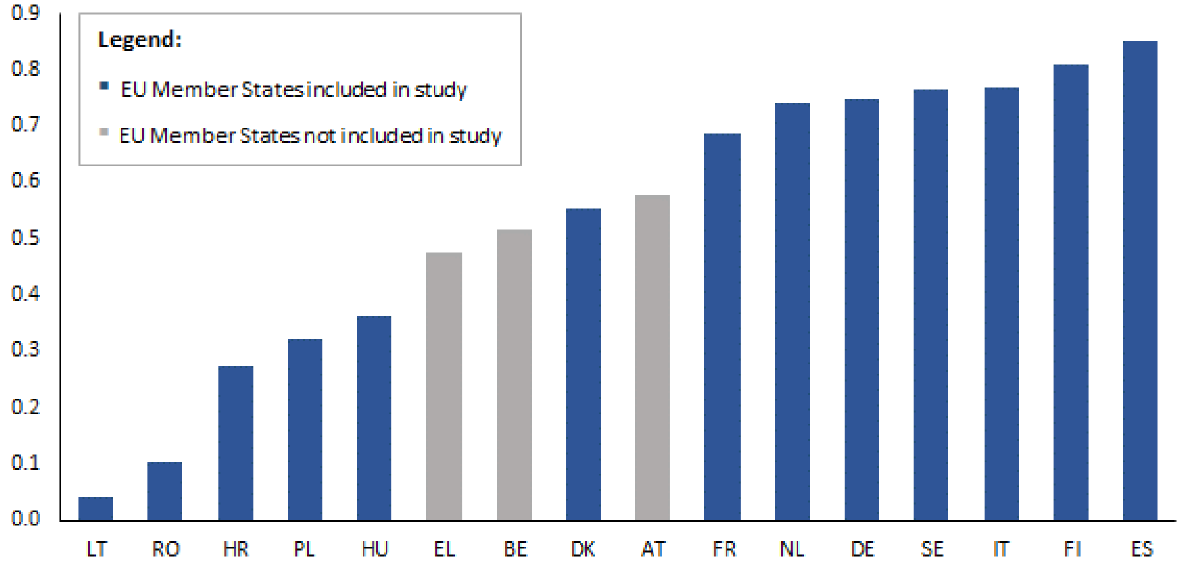
The four EU Member States with auto-enrolment pensions and Member States within each cluster with benchmark scheme types (schemes representing policy solutions that could be considered alternatives to auto-enrolment) are considered in this study. A diversity of benchmark pension scheme types, including mandatory schemes, contribution-neutral compulsory schemes, and voluntary opt-in schemes, are included. More specifically, the following EU Member States are considered:

- Countries with auto-enrolment schemes: France, Germany, Italy, Lithuania, and Poland.
- Countries with benchmark scheme-types: Croatia, Denmark, Finland, Hungary, the Netherlands, Romania, Spain, and Sweden[1016].

[1016] In the case of Sweden, we focus on the premium pension system as a benchmark pension scheme.

In addition, the selected Member States represent a range of stages of capital markets development, which is interesting to study from a CMU perspective (Figure 3) - i.e., do local capital market conditions influence practices and experiences of auto-enrolment?

Figure 3 Financial Markets Index, 2018



Note: The Financial Markets Index (FMI) developed by the International Monetary Fund (IMF) is a measure of capital market development[1017]*.*
Source: LE Europe analysis of IMF data

Amongst non-EU countries, the United Kingdom, the United States, Canada, and New Zealand are included; all are systems that feature auto-enrolment pensions and that are the subject of extensive literature.

1017 Svirydzenka, K., 2016. Introducing A New Broad-Based Index Of Financial Development. [online] Imf.org. Available at: <https://www.imf.org/external/pubs/ft/wp/2016/wp1605.pdf> [Accessed 9 October 2020].

12. ANNEX 3 - COUNTRY FICHES

12.1. Canada (Pooled Registered Pension Plan)

Basic characteristics

Type of scheme	**Voluntary access auto-enrolment**
Type of provider(s)	Private
Status of the scheme	Active
Year scheme became active	2012

Scope of the scheme

Employer size(s) covered	**All employers**
Employer sector(s) covered	All sectors
Type of employees covered	All full-time employees, and part-time employees having at least 24 months of continuous service with the employer, without access to a registered pension plan or retirement savings plan.
Coverage for self-employed persons?	Self-employed persons are not covered by automatic enrolment but can opt-in to the scheme

Overview of the Canadian pension system

The Canadian pension system consists of a universal flat rate benefit, an earnings related public scheme and a voluntary private pension scheme.[1018] The Old Age Security (OAS) programme, which provides residents with a basic pension, is reduced by 15% for high earning individuals and can be supplemented with additional assistance if the pensioner does not receive an income other than the OAS.[1019] The earnings-related public scheme targets a replacement rate of 33% of average lifetime salary up to the Yearly Maximum Pensionable Earnings (YMPE).[1020] The voluntary private pension plans allow Canadians to save for retirement beyond the base provided by the public schemes. The voluntary private pension plans include occupational pension plans and registered retirement savings plans (RRSPs), as well as auto-enrolment mechanisms such as the Pooled Registered Pension Plans (PRPPs).[1021]

Transition mechanisms

A Pooled Registered Pension Plan (PRPP) is a multi-employer defined contribution pension plan[1022]. When an employer offers a PRPP plan, employees are automatically enrolled into the plan.[1023] Employers do not have to offer a PRPP and employer contributions to the plan are optional. PRPPs

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[1018] OECD (2019) ‘Canada’, *Pensions at a glance 2019: Country profiles - Canada.* Available at: https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Canada.pdf

[1019] *Ibid.*

[1020] *Ibid.*

[1021] *Ibid.*

[1022] OECD (2014). ‘OECD Pensions Outlook 2014’ Available at: https://read.oecd-ilibrary.org/finance-and-investment/oecd-pensions-outlook-2014_9789264222687-en

[1023] Office of the Superintendent of Financial Institutions of Canada, ‘Pooled Registered Pension Plans – Guide for Federal Members’ (June 2018), available at: https://www.osfi-bsif.gc.ca/Eng/pp-rr/ppa-rra/prpp-rpac/Pages/prpp-rpac_fed.aspx, last consulted on 05/02/2021.

are designed to remove barriers which may prevent small and medium sized businesses offering workplace pension plans. For example, the fiduciary duties related to the management of the plan on behalf of plan members will be shifted from the employer to licensed administrators[1024]. Either the employer or administrator has to notify the employees of their enrolment. The onus is on the employer to deduct employee contributions and notify the administrator when an employee opts out, is no longer an employee, or dies.[1025]

The PRPP was introduced at the federal level in 2012 by the Pooled Registered Pensions Plan Act.[1026] PRPP legislation comes into force once adopted at provincial level. [1027] Since 2012, Ontario, Nova Scotia, Manitoba, British Columbia, and Saskatchewan provinces have adopted PRPP legislation.[1028] Additionally, Quebec have introduced their own version of PRPP called the Voluntary Retirement Savings Plan (VRSP). VRSPs have different rules in comparison to PRPPs. For example, PRPPs are voluntary for employers to offer but businesses in Quebec with five or more eligible employees must offer a VRSP unless they offer employees a registered pension plan, a group Registered Retirement Savings Plan (RRSP) or a tax-free savings account (TFSA)[1029].

Coverage rates associated with the scheme

PRPPs can be offered to employees and to self-employed persons.[1030] Employers do not have to offer a PRPP and can choose to only provide the PRPP to certain groups of employees such as: salaried employees; hourly employees; unionized employees; non-unionized employees; supervisors; managers; executives/corporate officers; employees at a specific location or in a specific division.

Contribution rates of the scheme

Employers can only begin making PRPP deductions from an employee's 61 days after the employee was notified in writing of their plan membership.[1031] Contribution rates depend on the PRPP; a plan may allow for one contribution rate, a range of rates and may have automatic escalation of rates.[1032] The default rate of the plan varies according to the administrator of the plan.[1033] Once members have contributed for 12 continuous months they can take a contributions holiday for between 3 and 60 months before resuming contributions. Participants can take an unlimited number of contribution holidays as long as they contribute for 12 months in between holidays.[1034]

A PRPP may allow participants to make additional voluntary contributions and transfer funds from other plans. As of 2021, the maximum amount a person can contribute to their PRPP is 18% of their earned income in the previous year or $27,830, whichever is less.[1035] Any unused room from prior years can also be used. This contribution limit is integrated across retirement savings vehicles[1036] and includes additional voluntary contributions. This contribution limit is reduced by the

[1024] Government of Canada, 'About Pooled Registered Pension Plans (PRPPs)' (July, 2018). Available at: https://www.canada.ca/en/revenue-agency/services/tax/registered-plans-administrators/pooled-registered-pension-plans-prpps/about-pooled-registered-pension-plans-prpps.html

[1025] Office of the Superintendent of Financial Institutions of Canada, 'Pooled Registered Pension Plans – Guide for Federal Members' (June 2018).

[1026] Pooled Registered Pension Plans Act, S.C. 2021, c.16, available at: https://laws-lois.justice.gc.ca/PDF/P-15.3.pdf, last consulted on 05/02/2021.

[1027] Pooled Registered Pension Plans Regulations, SOR/2012-294, Article 6 (Designated Provinces and Prescribed Supervisory Authorities), available at: https://laws-lois.justice.gc.ca/PDF/SOR-2012-294.pdf.

[1028] These are the designated provinces under the Pooled Registered Pension Plans Regulations, SOR/2012-294, Article 6 (Designated Provinces and Prescribed Supervisory Authorities).

[1029] National Bank. 2021. What is a VRSP?. [online] Available at: <https://www.nbc.ca/business/advice/human-resources/voluntary-retirement-savings-plan-vrsp.html> [Accessed 14 June 2021].

[1030] Pooled Registered Pension Plans Act, S.C. 2012, c.16, Article 4.

[1031] Pooled Registered Pension Plans Act, S.C. 2012, c.16, Article 46.

[1032] Office of the Superintendent of Financial Institutions of Canada, 'Pooled Registered Pension Plans – Guide for Federal Members', (June 2018) available at: https://www.osfi-bsif.gc.ca/Eng/pp-rr/ppa-rra/prpp-rpac/Pages/prpp-rpac_fed.aspx#9.1 .

[1033] Pooled Registered Pension Plans Act, S.C. 2012, c.16, Article 45(1).

[1034] Pooled Registered Pension Plans Regulations, SOR/2012-294, Article 21 (0% Contribution Rate).

[1035] Note: This is the same as for an RRSP; see: Canada Revenue Agency, 'RRSPs and Other Registered Plans for Retirement' T4040€, Rev. 20., available at: https://www.canada.ca/content/dam/cra-arc/formspubs/pub/t4040/t4040-20e.pdf last consulted on 05/02/2021.

[1036] Individuals may have a PRPP alongside personal Registered Retirement Savings Plans (RRSP). The 18% limit is a maximum amount that can be contributed to PRPP and any personal RRSP including contributions made on behalf of a spouse or common-law partner.

estimated amount of savings in a registered pension plan (RPP) through a pension adjustment. Pension adjustment reversals and net past service pension adjustments may also increase or decrease the contribution limit. Excess contributions over $2,000 will be subject to a penalty of 1% of the excess amount each month the funds remain in the account.[1037]

Providers

A PRPP pools contributions of participants in order to reduce fund management and administration fees. In Canada there are only five PRPPs available; they are offered by[1038]:

- Industrielle Alliance, Assurance et services financiers inc.
- The Royal Trust Company
- London Life Insurance Company
- Sun Life Assurance Company of Canada
- The Manufacturers Life Insurance Company

Tax and financial incentives

Employee and employer contributions are exempt from income tax up to the participant's contribution limit but are subject to income and withholding tax when benefits are paid.[1039]

Opt-out conditions

All members must be given the opportunity to terminate their membership in the PRPP within 60 days after receiving their notice of plan membership. Those who opt out must do so by providing written notice to their employer.[1040] If the member does not opt out within 60 days being notified of plan membership they cannot opt out while they are still employed by the firm providing the PRPP. Members can also notify their employer at any time if they object to being a member of a PRPP because of their religious beliefs. Those participants who are self-employed may opt-out at any time.

Once an individual has opted out, they can:

- leave funds in their PRPP account and continue to earn investment income;
- transfer the funds to another PRPP;
- transfer the funds to a registered pension plan if that plan allows the transfer;
- transfer the funds to a Registered Retirement Savings Plan, Life Income Fund, or a Restricted Life Income Fund; or
- use the funds in to purchase an immediate or deferred life annuity.[1041]

Accumulation conditions

Time commitment

All PRPP contributions are locked-in until participants are at least 55, at the age of 55 participants may be eligible to receive variable payments even if they are still employed with the employer

[1037] Canada Revenue Agency, 'RRSPs and Other Registered Plans for Retirement' T4040€, Rev. 20.; see also: Government of Canada, 'How contributions affect your RRSP deduction limit' (18 January 2021), available at: https://www.canada.ca/en/revenue-agency/services/tax/individuals/topics/rrsps-related-plans/contributing-a-rrsp-prpp/contributions-affect-your-rrsp-prpp-deduction-limit.html last consulted on 05/02/2021.

[1038] Osfi-bsif.gc.ca. 2021. List of Pooled Registered Pension Plans. [online] Available at: <https://www.osfi-bsif.gc.ca/Eng/pp-rr/ppa-rra/prpp-rpac/Pages/prpp-rpac-lst.aspx> [Accessed 14 June 2021].

[1039] Income Tax Act, R.S.C. 1985, c.1 (5th Supp.), Article 147.4(4), available at: https://laws-lois.justice.gc.ca/eng/acts/i-3.3/page-178.html last consulted on 05/02/2021; see also: Canada Revenue Agency, 'RRSPs and Other Registered Plans for Retirement' T4040€, Rev. 20.

[1040] Pooled Registered Pension Plans Act, S.C. 2012, c.16, Article 41.

[1041] See: Office of the Superintendent of Financial Institutions of Canada, 'Pooled Registered Pension Plans – Guide for Federal Members' (June 2018).

through which they joined the PRPP.[1042] Variable payments are treated as taxable and the minimum and maximum amounts an individual can receive is dependent on the plan.[1043]

Participants can contribute to a PRPP until the end of the year in which they turn 71.[1044]

In general, funds in a PRPP cannot be accessed, this includes contributions, investment earnings and any transfers in from non-locked-in accounts, such as a Registered Retirement Savings Plans (RRSP).[1045] There are a number of exceptions which may allow lump sum withdrawals such as:

- Small balances[1046] – if the balance in a PRPP account is small it may be able to be taken out as a lump sum when PRPP membership is terminated, the individual is no longer at their employer or upon death.
- Shortened life expectancy – If the member suffers from a mental of physical condition likely to shorten considerably the life expectancy of the member.
- Non-residency – Those who have not been a resident of Canada for at least two years and are no longer employed by the employer who is participating in the PRPP.[1047]

Investment strategy

The participant can choose their own investment strategy from investment options offered by the Administrator or make the Administrator responsible for investing the funds in the PRPP account.[1048]

If the PRPP allows the individual to make their own investment choices an Administrator may offer up to six investment options of varying degrees of risk and expected return.[1049] Those who fail to make an investment choice within 60 days of being notified of plan membership will be put into a default investment option chosen by the Administrator.[1050] The default investment option must be either a balanced fund or a portfolio of investments that takes into account a member's age, such as a target date fund.[1051]

Decumulation conditions

At the age of 71, the PRPP must be converted into an income generating vehicle such as a Life Income Fund. Alternatively, the PRPP funds can be used to purchase an annuity.[1052]

Performance of underlying investment vehicles

Table 17 Annual nominal investment rates of return of pension funds

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
12.0%	9.4%	3.9%	8.0%	8.9%	9.8%	6.9%	5.6%	8.0%	3.1%	9.1%

Source: OECD, Pension Markets in Focus 2020 Statistical Annex
Note: Data refer to pension funds only.

[1042] Pooled Registered Pension Plans Act, S.C. 2012, c.16, Article 36.

[1043] Pooled Registered Pension Plans Regulations, SOR/2012-294, Article 36 (Variable Payments).

[1044] Income Tax Act, R.S.C. 1985, c.1 (5th Supp.), Article 147.5(3)(b); See also: Office of the Superintendent of Financial Institutions of Canada, 'Pooled Registered Pension Plans – Guide for Federal Members' (June 2018).

[1045] Pooled Registered Pension Plans Act, S.C. 2012, c.16, Article 47; see also: Office of the Superintendent of Financial Institutions of Canada, 'Pooled Registered Pension Plans – Guide for Federal Members' (June 2018).

[1046] A small balance is one that is less than 20% of the Year's Maximum Pensionable Earnings (YMPE) for the year in which the member is no longer employed by an employer that is participating in the PRPP or the year in which the member dies.

[1047] Pooled Registered Pension Plans Regulations, SOR/2012-294, Article 34 (Locking-In).

[1048] Pooled Registered Pension Plans Act, S.C. 2012, c.16, Article 23.

[1049] Pooled Registered Pension Plans Regulations, SOR/2012-294, Article 17.

[1050] Pooled Registered Pension Plans Regulations, SOR/2012-294, Article 18(2).

[1051] Pooled Registered Pension Plans Regulations, SOR/2012-294, Article 16(2).

[1052] Income Tax Act, R.S.C. 1985, c.1 (5th Supp.), Article 147.5(3)(b); See also: Office of the Superintendent of Financial Institutions of Canada, 'Pooled Registered Pension Plans – Guide for Federal Members' (June 2018).

Solidarity clauses

None.

Interactions with other pension schemes

Contributions to a PRPP will reduce the contribution allowance for other pension schemes, such as a personal Registered Retirement Savings Plans (RRSP), a Specified Pension Plan[1053] (SPP), a spouse or common-law partner's RRSP or SPP. In 2021, the maximum amount a person can contribute to their PRPP is 18% of their earned income in the previous year or $27,830, whichever is less. Any unused room from prior years can also be used. This contribution limit is reduced by the estimated amount of annual savings in a RPP through a pension adjustment. Pension adjustment reversals and net past service pension adjustments may also increase or decrease the contribution limit.[1054]

Future developments

The Canadian government recently held a public consultation of several proposals, including the introduction of Variable Payment Life Annuities (VPLAs) for DC plans and PRPPs. VPLAs will provide plan members with lifetime retirement income payments that vary based on investment returns and the mortality experience of the fund. VPLAs will allow pooling of investment and longevity risks (i.e., the risk of outliving one's retirement savings) by allowing PRPPs and DC plans to establish a separate annuities fund under the plan. While the payments provided by a VPLA could fluctuate, the benefits would provide lifetime payments, similar to DB plans, which could help improve the retirement security of PRPP and DC plan members and retirees in Canada[1055].

[1053] An SPP is similar to a RRSP but with stricter contribution and withdrawal rules. The only active SPP is the Saskatchewan Pension Plan.

[1054] Canada Revenue Agency, 'RRSPs and Other Registered Plans for Retirement' T4040€, Rev. 20., available at: https://www.canada.ca/content/dam/cra-arc/formspubs/pub/t4040/t4040-20e.pdf, last consulted on 05/02/2021.

[1055] Canada.ca. 2020. *Strengthening Canadians' Retirement Security - Proposals to Support the Sustainability of and Strengthen the Framework for Federally Regulated Private Pension Plans - Canada.ca*. [online] Available at: <https://www.canada.ca/en/department-finance/programs/consultations/2020/strengthening-canadians-retirement-security-proposals-support-sustainability-strengthen-framework-federally-regulated-private-pension-plans.html#_Toc48808164> [Accessed 14 May 2021].

12.2. Croatia (Mandatory private pillar)

Basic characteristics

Type of scheme	**Contribution-neutral compulsory**
Type of provider(s)	Private pension asset management companies
Status of the scheme	Active
Year scheme became active	2002 (significant reforms in 2014 and 2019)

Scope of the scheme[1056]

Employer size(s) covered	**All**
Employer sector(s) covered	All
Type of employees covered	All born after 1962 (voluntary for those born between 1952 and 1961)
Coverage for self-employed persons?	Same as for employees

Overview of the Croatian pension system

The Croatian pension system is organised into a pay-as-you-go public pension, a contribution-neutral compulsory funded private pension (hereafter referred to as the 'mandatory private pillar') and voluntary personal savings.[1057] The pay-as-you-go pension is redistributive, as all working individuals contribute 15% of their gross salaries and all current pensioners receive a benefit of around €320 per month.[1058] The mandatory private pension was introduced in 2002, and has a coverage rate of almost 63%.[1059] Individuals are required to contribute at least 5% of their gross salaries, but may choose the compulsory pension fund and the fund category to which they will contribute.[1060] The voluntary personal pension system remains small with a coverage around 11.6%.[1061] This low coverage is despite the provision of fiscal incentives.[1062] This low coverage may be a consequence of the existence of the mandatory private scheme (which has quite high, and growing, coverage) and because of the affordability for workers in Croatia of making contributions to a voluntary pension.

Transition mechanisms

Those born before 1952 were not able to participate in this scheme and were eligible only for the public pension. Those born between 1952 and 1961 (i.e., those aged between 40 and 50 when the scheme was introduced) were able to voluntarily opt in to the scheme. Those born in 1962 and after were compulsorily insured under the scheme.[1063] Benefit payments were planned to start in 2012; in 2011, those who had voluntarily opted in to the scheme were given the right to choose

[1056] World Bank (2019), 'Policy Note: Adequacy of Pensions in Croatia'. July 2019. Available at http://pubdocs.worldbank.org/en/861371604611925086/22a-Adequacy-of-Pensions.pdf.

[1057] Better Finance (2020) 'Country case: Croatia', *Pension Savings: The real return.* Available at: https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf

[1058] Ibid.

[1059] Ibid.

[1060] Ibid.

[1061] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), *Country case: Croatia*, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf.

[1062] Ibid.

[1063] Ibid.; see also Part XIII on Transitional and Final provisions of the Pension Insurance Act (*Zakon o mirovinskom osiguranju*) between receiving benefits just from the public pension, or from both.[1064] The intention of providing this right was to prevent inequality between those who had participated in the mandatory private scheme and those who had not (at that time participants in the private mandatory scheme were not entitled to a public pension supplement, and many had only a short contribution history in the mandatory private scheme).[1065] This right was subsequently extended to all those insured under the scheme (see below).

Coverage rates associated with the scheme

As of 2019, the coverage rate for this scheme was 62.55%.[1066] This figure will increase over time because of the scheme's scope.

Contribution rates of the scheme

In Croatia, statutory pension contributions for most employees and the self-employed equal 20% of gross salary. For those covered by the mandatory private pillar, 5% of gross salary is reallocated to that scheme.[1067] Since 2017, total statutory contributions for those receiving non-regular income from employment or self-employment stand at 10% of gross salary.[1068]

The proportion of gross income reallocated from the pay-as-you-go (PAYG) public pension had been planned to increase to 10% (from 5%), but this was abandoned for budget reasons, given fiscal challenges connected to PAYG public pension in conjunction with difficulty associated with increasing total statutory contribution rates.[1069]

Providers

In the mandatory private pillar, savings are managed by private asset management companies.[1070] In the decumulation phase, payments are made by so-called pension insurance companies (these companies are IORPs[1071] and are not insurance undertakings[1072]), one of which is public and the other private.[1073] At retirement, savings are transferred from the account with the asset management company to the pension insurance company.

There are four private asset management companies that operate in Croatia's mandatory private pillar: Allianz ZB, Erste, PBZ Croatia Osiguranje and Raiffeisen.[1074] Meanwhile, there are two pension insurance companies in operation: Hrvatsko mirovinsko osiguravajuće društvo (Croatian Pension Insurance Company) and Raiffeisen pension insurance company.[1075]

[1064] Fultz, E. and Hirose, K. (2018), 'Second-pillar Pension Re-reforms in Bulgaria, Croatia, Estonia, Latvia, Macedonia, Romania, and Slovakia', *ESS (Extension of Social Security) Working Paper No. 72*, International Labour Organisation. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---socsec/documents/publication/wcms_648623.pdf.

[1065] *Ibid*.

[1066] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), *Country case: Croatia*, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf.

[1067] Vukorepa, I. (2018), 'Croatia: Government remains committed to second pension pillar in face of public debate', European Social Policy Network Flash Report 2018/12. March 2018. See also Article 13(1) of the Contributions Act (*Zakon o doprinosima*), available at https://www.zakon.hr/z/365/Zakon-o-doprinosima.

[1068] Ibid.; see also Articles 13§3 and 7§6 of the Contributions Act (*Zakon o doprinosima*); Article 17 of the Pensions Insurance Act (*Zakon o mirovinskom osiguranju*).

[1069] See, e.g., World Bank (2011), 'Croatia: Policy Options for Further Pension System Reform', *Croatia Policy Notes*. July 2011. Available at http://documents1.worldbank.org/curated/en/623691468262449583/pdf/702290PNT0P1230olicy0Notes0Pension0.pdf.

[1070] Article 1 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*), available at https://www.zakon.hr/z/708/Zakon-o-obveznim-mirovinskim-fondovima.

[1071] EIOPA (2021), 'Register of Institutions for Occupational Retirement Provision'. Accessed 11th October 2021. Available at https://register.eiopa.europa.eu/registers/register-of-institutions-for-occupational-retirement-provision.

[1072] EIOPA (2021), 'Register of Insurance Undertakings'. Accessed 11th October 2021. Available at https://register.eiopa.europa.eu/registers/register-of-insurance-undertakings.

[1073] Article 1(4) of the Pension Insurance Act (*Zakon o mirovinskom osiguranju*).

[1074] HANFA (2021), 'Registers – Mandatory pension companies'. Available at https://www.hanfa.hr/pillar-ii-and-iii-pensions-and-pension-payments/registers/mandatory-pension-companies/. Accessed 16th March 2021.

[1075] HANFA (2021), 'Registers – Pension insurance companies'. Available at https://www.hanfa.hr/pillar-ii-and-iii-pensions-and-pension-payments/registers/pension-insurance-companies/. Accessed 16th March 2021.

Both the asset management companies and the pension insurance companies are supervised by the Croatian Financial Services Supervisory Agency (HANFA), in accordance with the Act on Mandatory Pension Funds,[1076] the Act on the Croatian Financial Services Supervisory Agency and the Act on Pension Insurance Companies.[1077]

Tax and financial incentives

Croatia's mandatory private scheme is subject to 'EET' (exempt-exempt-taxed) taxation.[1078] Tax is not levied on contributions or investment returns, but pension income is taxed.[1079] However, the tax allowance that applies to pension income is 70% higher than that which applies to income from employment.[1080]

Opt-out conditions

For those under the age of 40, accumulation is compulsory;[1081] however, individuals are permitted to choose whether to take benefits from both the state old-age pension and this mandatory private scheme, or just from the public pension. See also the 'Decumulation conditions' section below.

Accumulation conditions

Each of the four fund providers (see above) provides three funds, meaning there are 12 available funds in total. These three funds comprise one category A fund, one category B fund and one category C fund.[1082] The three categories of funds were introduced in 2014 to proxy a life-cycle investment strategy; prior to this; each of the four providers provided only one fund.[1083] Pension funds in different categories have different investment strategies and (as a consequence) different risk profiles.[1084] Category A funds have the highest risk profiles while category C funds have the lowest risk profiles.[1085] Pension funds in different categories also have different limitations on investments and membership. [1086] If the insured person does not select a pension fund within one month from the establishment of the mandatory pension insurance, category A will be allocated automatically.[1087] However, if the insured person has been assigned to category A automatically, after the expiration of 10 years from the date of assignment to category A, they will be moved to a category B fund. [1088] Table 18 below non-exhaustively summarises the investment restrictions that apply to each of the three categories.

[1076] Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1077] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), *Country case: Croatia*, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf. See also Article 13 to 19 of the Croatian Financial Services Supervisory Agency Act (Zakon o Hrvatskoj agenciji za nadzor financijskih usluga), available at: https://www.zakon.hr/z/215/Zakon-o-Hrvatskoj-agenciji-za-nadzor-financijskih-usluga-; Article 4a of the Pension Insurance Companies Act (Zakon o mirovinskim osiguravajućim društvima), available at https://www.zakon.hr/z/712/Zakon-o-mirovinskim-osiguravaju%C4%87im-dru%C5%A1tvima.

[1078] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), *Country case: Croatia*, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf. See also Article 8 of the Income Tax Act (*Zakon o porezu na dohodak*), available at https://www.zakon.hr/z/85/Zakon-o-porezu-na-dohodak.

[1079] Article 4 of the Law on Special Tax on Salaries, Pensions and Other Receipts (*Zakon o posebnom porezu na plaće, mirovine i druge primitke*), available at https://www.zakon.hr/z/185/Zakon-o-posebnom-porezu-na-pla%C4%87e,-mirovine-i-druge-primitke.

[1080] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), *Country case: Croatia*, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf.

[1081] Article 90 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1082] Article 2§2 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1083] Draženović, B.O., Hodžić, S. and Maradin, D. (2019), 'The Efficiency of Mandatory Pension Funds: Case of Croatia', *South East European Journal of Economics and Business*, Vol. 14(2) 2019, pp.82-94.

[1084] Article 2§3 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1085] Article 2§3 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1086] Article 78§2 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1087] Article 91§3 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1088] Article 91§2 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

Table 18 Summary of investment and membership restrictions by fund category, Croatia mandatory pension funds[1089, 1090, 1091]

Category	Membership	Government bonds	Private bonds	Equities	Retail investment funds	Private investment funds	Assets denominated in Croatian kuna (HRK)
Category A	Permitted until 10 years before retirement age[1092]	Minimum 30% of net assets in the bonds of the Republic of Croatia, EU Member States or OECD countries[1093]	Maximum 50% exposure[1094]	Maximum 65% exposure[1095]	Maximum 30% exposure[1096]	Maximum 15% exposure[1097]	Minimum 40% of net assets denominated in kuna[1098]
Category B	Default until five years before retirement age[1099]	Minimum 50% of net assets in the bonds of the Republic of Croatia, EU Member States or OECD countries[1100]	Maximum 30% exposure[1101]	Maximum 40% exposure[1102]	Maximum 30% exposure[1103]	Maximum 10% exposure[1104]	Minimum 60% of net assets denominated in kuna[1105]
Category C	REGOS, the Central Registry of Affiliates (or Central Registry of Insured Persons), automatically transfers savers to a category C fund (with	Minimum 70% of net assets in the bonds of the Republic of Croatia, EU Member States or OECD countries[1107]	Maximum 10% exposure[1108]	No exposure permitted[1109]	Maximum 15% exposure[1110]	No exposure permitted[1111]	Minimum 90% of net assets denominated in kuna[1112]

[1089] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), *Country case: Croatia*, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf.

[1090] OECD (2020), 'Annual Survey of Investment Regulation of Pension Funds and Other Pension Providers'. Available at http://www.oecd.org/daf/fin/private-pensions/2020-Survey-Investment-Regulation-Pension-Funds-and-Other-Pension-Providers.pdf.

[1091] Central Registry of Affiliates (Regos), 'Who should be a member of the second pillar?'. Available at https://regos.hr/en/insured-persons/who-should-be-a-member-of-the-second-pillar.

[1092] Article 93§1 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1093] Article 127§1.1 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1094] Articles 127§1.4 and 125§1.4 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1095] Articles 127§1.5 and 125§1.5 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1096] Articles 127§1 Items 1, 2, 3 and 6 and 125§1 Items 6 to 9 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1097] Articles 127§1.7 and 125§1.7 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1098] Article 129 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1099] Article 93§2 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1100] Article 127§2.1 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1101] Article 127§2 Items 2 to 4 and Item 6 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1102] Article 127§2.5 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1103] Article 127§1.1 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1104] Article 127§2 Items 2 to 4 and Item 6 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1105] Article 129 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1107] Article 127§3.1 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1108] Article 127§3.1 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1109] Articles 127§3.10 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1110] Article 128§5 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1111] Article 127§3.10 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1112] Article 129 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

Category	Membership	Government bonds	Private bonds	Equities	Retail investment funds	Private investment funds	Assets denominated in Croatian kuna (HRK)
	the same provider) when they are five years away from retirement age[1106]						

Each category of fund is associated with a guaranteed rate of return.[1113] For each fund category, a reference rate of return is calculated as the weighted average of the rates of return of each fund in that category over the previous three years.[1114] For category A funds, the guaranteed rate of return is 12 percentage points below the reference rate of return; for category B funds, the guaranteed rate of return is 6 percentage points below the reference rate of return; and for category C funds, the guaranteed rate of return is 3 percentage points below the reference rate of return.[1115] In the first instance, the provider is liable to 'top up' returns if the returns are below the guaranteed rate.[1116]

Those covered by the scheme are required to choose a fund within one month of entering the scheme; if they do not make a choice, they are assigned to a (category B) fund by REGOS.[1117]

Fees for fund providers in this scheme are relatively low and were reduced in the 2019 reforms.[1118] They are regulated by HANFA and the Mandatory Pension Funds Act.[1119] There are four types of fee:

- a management fee of 0.3% per annum, which is to fall to 0.2% per annum;[1120]
- an entry fee upon joining a fund of 0.5% of contributions;[1121]
- exit fees if switching from a fund within three years of joining that equals 0.8% in the first year of membership, 0.4% in the second year, 0.2% in the third year (though one can change fund category with the same fund provider once each year without paying this fee[1122]);[1123] and,
- an annual depository fee that varies by provider but cannot be above 0.025% (in 2020, this fee varied between 0.017% and 0.022% per annum).[1124]

[1106] Article 96§2 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1113] Article 113 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1114] IOPS (2019), *Croatia Country Profile*. December 2019. Available at http://www.iopsweb.org/resources/39487277.pdf.. Article 113§2 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1115] IOPS (2019), *Croatia Country Profile*. December 2019. Available at http://www.iopsweb.org/resources/39487277.pdf; Article 113§1 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1116] Article 113§3 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1117] Migracije.hr (2021), 'Pension Insurance – II Pillar'. Available at https://migracije.hr/pension-insurance-ii-pillar/?lang=en. See also Article 91§2 and §3 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1118] Bezovan, G. (2018), 'Croatia: Will the reform of the pension system contribute to improving the adequacy and sustainability of pensions?', European Social Policy Network Flash Report 2018/69. December 2018.

[1119] IOPS (2019), *Croatia Country Profile*. December 2019. Available at http://www.iopsweb.org/resources/39487277.pdf. See also Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*) and Croatian Financial Services Supervisory Agency Act (Zakon o Hrvatskoj agenciji za nadzor financijskih usluga).

[1120] Article 63§2 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*)

[1121] Article 63§1 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1122] Migracije.hr (2021), 'Pension Insurance – II Pillar'. Available at https://migracije.hr/pension-insurance-ii-pillar/?lang=en.

[1123] Articles 63§3 of the Mandatory Pension Funds Act (*Zakon o obveznim mirovinskim fondovima*).

[1124] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), *Country case: Croatia*, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf.

The fees that can be charged by pension insurance companies are regulated by HANFA and the Act on Pension Insurance Companies.[1125] Pension insurance companies may charge three types of fee:[1126]

- a one-time fee, charged on the total balance in the individual's account when it is transferred to the pension insurance company – this may be up to 1.5% of that balance;
- an annual fee, capped at 0.17% of the total accumulated account balance;[1127] and,
- a management fee, capped in 2019-2021 at 0.6% of net assets each year.[1128]

Decumulation conditions

In Croatia, one becomes eligible for benefits from the public pension after both completing a 15-year qualifying period and turning 65 in the case of men[1129] and 62 years and 9 months in the case of women[1130]. The retirement age for women will rise by 3 months each year until 2030 in order to align it with the retirement age for men.[1131] Those insured in the mandatory private scheme can take benefits from it when they become eligible for benefits from the public pension.

Those insured in the mandatory private scheme (whether voluntarily or because of compulsion) are able to choose whether to receive benefits from both the public pension and the mandatory private scheme or to receive benefits just from the public pension, depending on which is more favourable.[1132] The entitlement to choose in which scheme one's benefit was introduced in 2011 for those who had joined the mandatory private scheme voluntarily,[1133] and extended to all those insured in the mandatory private scheme in the 2019 reforms.[1134]

If an individual chooses to 'leave' the mandatory private scheme and receive benefits only from the public pension, the funds in that individual's mandatory private account are transferred to the state budget. The Croatian Pension Insurance Institute (HZMO) then calculates the benefit as if the individual had been insured only by the public pension, with a supplement of 27% (i.e. a 27% boost to the value of the public pension).[1135]

If an individual chooses to receive benefits from both the public pension and the mandatory private scheme, the benefit from the public pension is calculated with a supplement of 27% for the period insured up to the end of 2001 and a supplement of 20.25% for the period from the start of 2002 until retirement.

Upon retirement, it is compulsory for those taking benefits from the mandatory private pension to purchase an annuity from one of the authorised pension insurance companies (currently there are

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[1125] IOPS (2019), *Croatia Country Profile*. December 2019. Available at http://www.iopsweb.org/resources/39487277.pdf. See also Pension Insurance Companies Act (*Zakon o mirovinskim osiguravajućim društvima*) and Croatian Financial Services Supervisory Agency Act (Zakon o Hrvatskoj agenciji za nadzor financijskih usluga)

[1126] Ibid.

[1127] Article 135(1) of the Pension Insurance Companies Act (*Zakon o mirovinskim osiguravajućim društvima*).

[1128] Article 84(5) of the Pension Insurance Companies Act (*Zakon o mirovinskim osiguravajućim društvima*).

[1129] Article 33 of the Pension Insurance Act (*Zakon o mirovinskom osiguranju*).

[1130] European Commission (2021), 'Croatia – Social benefits in Croatia – Old-age pension'. Available at https://ec.europa.eu/social/main.jsp?catId=1104&langId=en&intPageId=4462. See also Article 180 of the of the Pension Insurance Act (*Zakon o mirovinskom osiguranju*).

[1131] Ibid.

[1132] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), Country case: Croatia, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf. See also Article 104, Law on Mandatory Pension Funds, consolidated text of the law NN 19/14, 93/15, 64/18, 115/18, 58/20, in force from 20.05.2020. Available at https://www.zakon.hr/z/708/Zakon-o-obveznim-mirovinskim-fondovima; and Article 98 of the Pension Insurance Act (*Zakon o mirovinskom osiguranju*).

[1133] Fultz, E. and Hirose, K. (2018), 'Second-pillar Pension Re-reforms in Bulgaria, Croatia, Estonia, Latvia, Macedonia, Romania, and Slovakia', *ESS (Extension of Social Security) Working Paper No. 72*, International Labour Organisation. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---soc_sec/documents/publication/wcms_648623.pdf.

[1134] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), Country case: Croatia, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf.

[1135] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), Country case: Croatia, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf.

two: the Croatian Pension Insurance Company and Raiffeisen).[1136] However, since 2019 it is possible to request a one-off lump sum payment of up to 15% of total savings in the scheme upon retirement if the individual's public pension entitlements are above a certain level specified in legislation.[1137, 1138]

If a member of a mandatory private fund chooses to take benefits from it, upon retirement REGOS closes their account with the fund provider and transfers the money to the pension insurance company, who then contacts the member in order to agree the purchase of the annuity.[1139]

The pension must be adjusted twice a year in line with the public pension; the rate of adjustment depends on the rates of wage and price growth, in a ratio that depends on trends in wage growth and price inflation.[1140] This is intended to protect the purchasing power of the pension.

Performance of underlying investment vehicles

Between 2002 and 2019, the average real return achieved by pension funds in Croatia's mandatory private scheme after charges but before taxes was 3.59%.[1141] This was slightly lower than the return achieved by funds in the voluntary private pillar, which was 3.88%.[1142]

Solidarity clauses

The transition mechanism described above aims to prevent the scheme's introduction from causing differences in the rights of people born at different times. Gender neutrality in the calculation of benefits is mandated,[1143] and the accrual of entitlements in the mandatory private pillar continues during maternity leave.[1144]Note also that the PAYG public pension is highly redistributive between the highest and lowest earners.[1145]

Interactions with other pension schemes

As described above, those insured in the mandatory private scheme are able to choose between taking benefits just from the public pension or from both the public pension and the mandatory private scheme.[1146] The assets that have been accumulated through the mandatory private scheme have been viewed by some as a potential source of funds for the public pension.[1147]

Future developments

[1136] Fultz, E. and Hirose, K. (2018), 'Second-pillar Pension Re-reforms in Bulgaria, Croatia, Estonia, Latvia, Macedonia, Romania, and Slovakia', *ESS (Extension of Social Security) Working Paper No. 72*, International Labour Organisation. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---soc_sec/documents/publication/wcms_648623.pdf.

[1137] Bezovan, G. (2018), 'Croatia: Will the reform of the pension system contribute to improving the adequacy and sustainability of pensions?', European Social Policy Network Flash Report 2018/69. December 2018.

[1138] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), Country case: Croatia, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf.

[1139] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), *Country case: Croatia*, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf.

[1140] Fultz, E. and Hirose, K. (2018), 'Second-pillar Pension Re-reforms in Bulgaria, Croatia, Estonia, Latvia, Macedonia, Romania, and Slovakia', *ESS (Extension of Social Security) Working Paper No. 72*, International Labour Organisation. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---soc_sec/documents/publication/wcms_648623.pdf. See also Article 88 of the Pension Insurance Act (*Zakon o mirovinskom osiguranju*).

[1141] Mączyńska, A., Šebo, J. and Voicu, Ş.D. ed. (2020), *Country case: Croatia*, 'Long-Term and Pension Savings: The Real Return, 2020 Edition'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Croatia.pdf.

[1142] Ibid.

[1143] Fultz, E. and Hirose, K. (2018), 'Second-pillar Pension Re-reforms in Bulgaria, Croatia, Estonia, Latvia, Macedonia, Romania, and Slovakia', *ESS (Extension of Social Security) Working Paper No. 72*, International Labour Organisation. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---soc_sec/documents/publication/wcms_648623.pdf. See also Article 88 of the Pension Insurance Act (*Zakon o mirovinskom osiguranju*).

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[1145] World Bank (2011), 'Croatia: Policy Options for Further Pension System Reform', *Croatia Policy Notes*. July 2011. Available at: http://documents1.worldbank.org/curated/en/623691468262449583/pdf/702290PNT0P1230olicy0Notes0Pension0.pdf; see for example Article 90 of the Pensions Insurance Act (*Zakon o mirovinskom osiguranju*).

[1146] Article 98 of the Pension Insurance Act (*Zakon o mirovinskom osiguranju*).

[1147] Vukorepa, I. (2018), 'Croatia: Government remains committed to second pension pillar in face of public debate', European Social Policy Network Flash Report 2018/12. March 2018.

This scheme has at various times (including 2009/10, 2013/14, 2016 and 2017) been the subject of public debate.[1148] Some have called for its abolition, with the associated funds to be channelled into the PAYG public pension. Others have called for contributions to the mandatory private scheme to be reduced or channelled instead into voluntary private pensions. Similar reforms have been made to analogous schemes in other CEE countries such as Hungary, Poland and Bulgaria.[1149] In Croatia, opponents of this scheme have argued that the money in the mandatory private scheme could be used to improve provision for current pensioners, and that the scheme exposes savers to too much risk.[1150]

The 2019 reforms have been interpreted as a commitment to the future of the scheme.[1151] Under Croatian law, the abolition of this scheme would amount to the nationalisation of private property.[1152]

An association of mandatory pension funds and pension insurance companies has also called for the extension of the 27% public pension supplement to be applied for all members of the mandatory private scheme.[1153] Ahead of the 2019 reforms, the government rejected calls to do this because of the fiscal costs it would entail.[1154]

Other changes that have been proposed include:[1155]

- a shift to a less prescriptive framework of regulation for investment, featuring fewer restrictions on investing abroad;
- abolition of the separate A-, B- and C- category funds and their replacement with life cycle funds;
- removal of the guaranteed rates of return for each category of funds;
- removal of the indexation of the mandatory private pensions to wage growth and price inflation;
- simplification and increase in the transparency of fees, including the abolition of entry and exit fees;
- allowing pension fund management companies to pay out benefits (ending the separation of the accumulation and pay-out phases);
- the introduction of representation for participants or the public interest in the fund management companies.

[1148] Vukorepa, I. (2018), 'Croatia: Government remains committed to second pension pillar in face of public debate', European Social Policy Network Flash Report 2018/12. March 2018.

[1149] Ibid.

[1150] Ibid.

[1151] Ibid.

[1152] Ibid.

[1153] Bezovan, G. (2018), 'Croatia: Will the reform of the pension system contribute to improving the adequacy and sustainability of pensions?', European Social Policy Network Flash Report 2018/69. December 2018.

[1154] Ibid.

[1155] World Bank (2019), 'Policy Note: Adequacy of Pensions in Croatia'. July 2019. Available at http://pubdocs.worldbank.org/en/861371604611925086/22a-Adequacy-of-Pensions.pdf.

12.3. Denmark (Arbejdmarkedets TillaegsPension (ATP) Lifelong Pension scheme)

Basic characteristics

Type of scheme	**Mandatory**
Type of provider(s)	ATP – self-governing pension fund and administrative institution[1156] established by the Danish government
Status of the scheme	Active
Year scheme became active	1964

Scope of the scheme

Employer size(s) covered	**All**
Employer sector(s) covered	All
Type of employees covered	All employees aged 16 or over who work at least 9 hours per week or 39 hours per month at the same employer
Coverage for self-employed persons?	Yes but on a voluntary basis

Overview of the Danish pension system

The Danish pension system comprises a public pension, a statutory savings based supplementary pension (ATP), occupational pensions,[1157] and voluntary personal plans. The public pension is universal and consists of a basic pension, and a means-tested pension supplement.[1158] The basic pension is equivalent to around 18% of average earnings for individuals whose total pension incomes are below a certain threshold.[1159] In addition to a pension supplement, disadvantaged pensions may also receive a personal allowance and a health allowance.[1160] This fiche discusses the Danish Labour Market Supplementary Pension, ATP, a collective insurance-based scheme in which all workers pay monthly lump-sum contributions based on the number of hours that they work.[1161]

Separately from the public pension and the ATP, quasi-mandatory occupational pension schemes in Denmark currently cover 65% of the working-age population and approximately 85% of those in employment in Denmark, though they did not have significant coverage in the mid-1980s or before (i.e. when the ATP scheme was introduced).[1162, 1163] These schemes insure members against a variety of risks and provide benefits such as disability, survivor's benefits, old-age benefits and critical illness benefits.[1164] Such schemes are established through collective bargaining agreements between social partners; these agreements also set contribution rates.[1165] These occupational

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[1156] Since 1973, ATP has administered different labour market schemes in Denmark and since 2011, ATP Group has been responsibility for administrating many social welfare programmes in Denmark. See https://www.atp.dk/om-os/atps-historie.

[1157] OECD (2019) 'Denmark', *Pensions at a glance 2019: Country profiles - Denmark.* Available at: https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Denmark.pdf

[1158] Ibid.

[1159] Ibid.

[1160] Ibid.

[1161] Ibid.

[1162] OECD (2020), 'Pension Markets in Focus 2020'.

[1163] OECD (2019), *Country profile: Denmark*, 'OECD Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Denmark.pdf.

[1164] Ibid.

[1165] *Ibid*; Chapter 5 §15.2 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*), schemes are funded and defined contribution.[1166] A system of company-based pension schemes, agreed upon between individual employees and employers, also exists.[1167]

Transition mechanisms

When the scheme was established in 1964, it was compulsory for employees, but it has since – in the 1990s – been expanded so as to be compulsory also for most people who receive income through transfers (e.g. through unemployment benefits, while doing vocational training, etc.).[1168]

Coverage rates associated with the scheme

The ATP Lifelong Pension scheme has near-universal coverage in Denmark. In 2019, it covered more than 86% of the working-age population.[1169] 94% of Danes aged between 25 and 65 contributed to the ATP in 2020.[1170] Coverage has been increasing because of greater labour market participation amongst certain groups (e.g. women) and because of the expansion in the scheme's scope mentioned above.

Contribution rates of the scheme

Contributions to the ATP Lifelong Pension scheme are set amounts that vary according to the number of hours worked, rather than amounts defined as a percentage of income.[1171] Contributions are paid by employers and by employees; the employer pays two-thirds, and the employee pays the remaining third.[1172] Total contributions are low as a percentage of earnings (in 2008, less than 1% for an average employee).[1173]

Those who receive income through transfers rather than through employment pay twice as much in contributions, in compensation for the absence of contributions to occupational schemes for these people.[1174]

The ATP contribution levels are set by the ATP's Board of Directors, but changes require the approval of a majority from each group of stakeholder representatives.[1175] Contributions have been raised only a handful of times since the introduction of the ATP in 1964.[1176]

The table below shows the total contributions associated with different numbers of hours worked for monthly paid workers.[1177]

Number of hours worked	Total contributions (employer and employee) in DKK per month, since 2016
Fewer than 39	None

[1166] OECD (2019), *Country profile: Denmark*, 'OECD Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Denmark.pdf..

[1167] Work in Denmark, 'Pension'. Available at https://www.workindenmark.dk/Working-in-DK/Pension.

[1168] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark', World Bank Policy Research Working Paper 4505. Available at http://documents1.worldbank.org/curated/en/273361468026054863/pdf/wps4505.pdf; Chapter of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*), available at https://www.retsinformation.dk/eli/lta/2014/1110.

[1169] OECD (2020), 'Pension Markets in Focus 2020'.

[1170] ATP Group Annual Report 2020. Available at https://www.atp.dk/en/dokument/atp-group-annual-report-2020.

[1171] OECD (2019), *Country profile: Denmark*, 'OECD Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Denmark.pdf; See also Chapter 5 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1172] OECD (2019), *Country profile: Denmark*, 'OECD Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Denmark.pdf; See also Chapter 5 §15.6 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1173] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark', World Bank Policy Research Working Paper 4505. Available at http://documents1.worldbank.org/curated/en/273361468026054863/pdf/wps4505.pdf.

[1174] OECD (2019), *Country profile: Denmark*, 'OECD Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Denmark.pdf.

[1175] *Ibid*; See also Chapter 5 §15.1 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1176] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark'.

[1177] OECD (2019), *Country profile: Denmark*, 'OECD Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Denmark.pdf.

Number of hours worked	Total contributions (employer and employee) in DKK per month, since 2016
39-77	94.65
78-116	189.34
More than 116	284

Providers

The ATP fund is the only provider in the scheme. It was created by the Danish government in 1964 but is a self-governing institution. It is the fourth-largest pension fund in Europe.[1178]

Its governance structure comprises several bodies: a board of representatives (BoR), a board of directors (BoD), an executive committee and a chief executive officer (CEO).[1179]

The BoR has 31 members; organisations representing employers and workers each nominate 15 representatives respectively, and these representatives in turn select an independent chairperson.[1180] The composition of these groups of representatives is defined in law.[1181] Thirteen of the employee representatives represent the Danish Confederation of Trade Unions; two others are representatives of managerial workers and professionals.[1182] Of the employer representatives, ten come from the Confederation of Danish Employers and one is appointed by the Finance Minister.[1183] The BoR largely has a consultative role; it approves the ATP annual report and considers issues that the BoD refers to it.[1184] As mentioned above, a simple majority of the 15 employee representatives on the BoR and a simple majority of the 15 employer representatives on the BoR must approve an increase in contributions.[1185] The BoR does not make independent decisions in relation to proposals to increase contributions; rather, it reflects what has been decided by social partners in collective bargaining agreements.[1186]

The BoD has 13 members, all of whom are subject to a 'fit and proper' test and a requirement that they have the requisite experience.[1187] One is the Chairperson of the BoR, who serves also as the Chairperson of the BoD.[1188] The remaining 12 members are elected from the BoR, six must be drawn from each of two groups of representatives.[1189] The BoD's role includes, but is not limited to, appointing the CEO and setting operational guidelines (including in relation to investment) and other internal rules and systems.[1190]

[1178] Skydsgaard, N. (2021), 'Danish pension giant ATP makes first investment in social bonds', *Reuters*. Available at https://www.reuters.com/article/denmark-atp-bonds-idUKL8N2KH3UQ.

[1179] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark', World Bank Policy Research Working Paper 4505. Available at http://documents1.worldbank.org/curated/en/273361468026054863/pdf/wps4505.pdf; See also Part VII- 20(1) of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1180] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark'; See also Chapter 7 §21.1 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1181] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark';. See also Chapter 7 §21.2 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1182] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark' (updated).

[1183] *Ibid*. (updated). See also Chapter 7 §21.1 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1184] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark'; See also Chapter 7 §22.1 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1185] Chapter 5 §15.1 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1186] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark'; See also Chapter 5 §15.2 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1187] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark'; See also Chapter 7 §23.1 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1188] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark'; See also Chapter 7 §23.1 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1189] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark'; See also Chapter 7 §23.1 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*)

[1190] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark'; See also Part 7 §23. 3 to part VII -23(11) of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

The executive committee prepares and carries out BoD resolutions and makes decisions itself, especially in relation to investment policies and employment conditions.[1191]

The ATP plays an active role in corporate governance in the companies in which it invests.[1192] It adopted a policy on Socially Responsible Investments in the 1990s and in 2006 signed the United Nations-sponsored Principles of Responsible Investing.

The ATP is supervised by the Danish Financial Services Authority (DFSA).[1193] It is subject to the same regulations and obligations as other pension and insurance institutions, although the regulations covering the ATP are specified in a separate act (the ATP Act).[1194]

Tax and financial incentives

Tax is calculated on workers' income after ATP (and occupational pension) contributions are deducted, so these contributions are tax-exempt.[1195] While this does not work as an incentive for those (including employees) for whom contributions are compulsory, it does incentivise participation for the self-employed, who may opt voluntarily to contribute into the ATP.

Returns from pension savings are taxed at a lower rate than that which applies to other savings.

Opt-out conditions

Not applicable – it is compulsory for employees and most of those who receive income through transfers; the self-employed can opt in on a voluntary basis.[1196]

Accumulation conditions

80% of contributions acquire guaranteed pension rights;[1197] the level of this guarantee is calculated based on ATP's forecast of the member's life expectancy (updated annually) and the current level of interest rates.[1198] 20% of contributions are held as collective free reserves (bonus potential).[1199] If these free reserves are large enough, some of them are used in the indexation of guaranteed pensions (as a bonus).[1200]

Approximately 80% of assets are held in a low-risk hedging portfolio, which holds bonds and interest rate swaps.[1201] The remaining assets are held in the investment portfolio, whose role is to maximise returns subject to a maximum level of risk that is defined by the size of the bonus potential.[1202] The investment portfolio invests in equities as well as bonds.

[1191] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark'.

[1192] *Ibid*; See also Chapter 7 §23.2 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*),

[1193] Chapter 9 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1194] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark'; See also Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1195] Danish Customs and Tax Administration, 'ATP contributions, labour market contributions and mandatory foreign social contributions'. Available at https://skat.dk/SKAT.aspx?oid=107068; See also Chapter II of the Act on the taxation of pension schemes (*Bekendtgørelse af lov om beskatningen af pensionsordninger m.v.*), available at https://www.retsinformation.dk/eli/lta/2020/1327#id444e3392-71d1-49f5-8f5d-ab89b029e25b

[1196] Part II of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*).

[1197] Paragraph 22.14 of the Act amending the Act on Active Employment Efforts, the Act on Active Social Policy, the Act on Social Pensions and various other Acts (*Lov om ændring af lov om en aktiv beskæftigelsesindsats, lov om aktiv socialpolitik, lov om social pension og forskellige andre love*) available at https://www.retsinformation.dk/eli/lta/2012/1380

[1198] Lorenzen, K.A. and Jarner, S.F. (2017), 'Factor investing the ATP way'. September 2017. Available at https://www.atp.dk/en/dokument/factor-investing-atp-way.

[1199] *Ibid*; See also Paragraph 22.14 of the Act amending the Act on Active Employment Efforts, the Act on Active Social Policy, the Act on Social Pensions and various other Acts (*Lov om ændring af lov om en aktiv beskæftigelsesindsats, lov om aktiv socialpolitik, lov om social pension og forskellige andre love*)

[1200] Lorenzen, K.A. and Jarner, S.F. (2017), 'Factor investing the ATP way'; See also Paragraph 22.14 of the Act amending the Act on Active Employment Efforts, the Act on Active Social Policy, the Act on Social Pensions and various other Acts (*Lov om ændring af lov om en aktiv beskæftigelsesindsats, lov om aktiv socialpolitik, lov om social pension og forskellige andre love*).

[1201] Lorenzen, K.A. and Jarner, S.F. (2017), 'Factor investing the ATP way'. September 2017. Available at https://www.atp.dk/en/dokument/factor-investing-atp-way.

[1202] *Ibid.*

ATP lists four fundamental investment and risk management principles:[1203]

- hedging of pension guarantees;
- risk diversification;
- protection against tail risks; and,
- dynamic adjustment of risk level.

The ATP's costs are low in international comparison.[1204] Administrative costs in 2020 totalled 40 DKK per member (approximately €5[1205]).[1206] Total expenses in 2020 were 543 DKK per member, or 0.3% of total assets.[1207] The ATP's large size allows it to achieve economies of scale.[1208] In addition, its position as the only provider in a (mostly) mandatory system reduces the need for marketing expenses.[1209]

Decumulation conditions

The ATP pays benefits in the form of a life annuity, unless the individual has accrued very small entitlements, in which case they are permitted to take benefits as a lump sum.[1210] Because the contribution levels associated with the ATP are relatively small, so too are the benefits paid. If the member dies before the retirement age, their spouse and child(ren) receive a lump-sum payment.[1211]

Benefits can be paid from the public retirement age, which is currently in the process of being increased to 67 by 2022.[1212] It will be increased to 68 in 2030 and to 69 in 2035; subsequently, it will be indexed to life expectancy.[1213, 1214]

Performance of underlying investment vehicles

The ATP's average annual return in the 20 years to 2019 was 8.2%.[1215]

Solidarity clauses

None (there are no intergenerational transfers built into the ATP).

Interactions with other pension schemes

The ATP Lifelong Pension was introduced in 1964 in order to supplement the universal state pension. There are or have been other statutory supplementary schemes, called the LD, DMP, SP

1203 *Ibid.*

1204 ATP Group Annual Report 2020. Available at https://www.atp.dk/en/dokument/atp-group-annual-report-2020.

1205 See, e.g., Eurostat, ECU/EUR exchange rates versus national currencies. Available at https://ec.europa.eu/eurostat/databrowser/view/tec00033/default/table?lang=en.

1206 ATP Group Annual Report 2020. Available at https://www.atp.dk/en/dokument/atp-group-annual-report-2020.

1207 *Ibid.*

1208 Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark', World Bank Policy Research Working Paper 4505. Available at http://documents1.worldbank.org/curated/en/273361468026054863/pdf/wps4505.pdf.

1209 *Ibid.*

1210 Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark', World Bank Policy Research Working Paper 4505. Available at http://documents1.worldbank.org/curated/en/273361468026054863/pdf/wps4505.pdf; See also Chapter V §15 of the Labour Market Supplementary Pension Act, 2014 (*Arbejdsmarkedets Tillægspension Act*),

1211 OECD, *Country profile: Denmark*, 'OECD Pensions at a Glance 2017'. Available at https://www.oecd.org/els/public-pensions/PAG2017-country-profile-Denmark.pdf.

1212 OECD (2019), *Country profile: Denmark*, 'OECD Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Denmark.pdf.

1213 *Ibid.*

1214 Kromann Reumert (2020), 'The Danish government's legislative agenda 2020/2021 - employment and labour law'. Published 23rd December 2020. Available at https://en.kromannreumert.com/News/2020/12/The-Danish-governments-legislative-agenda-2020-2021-employment-and-labour-law.

1215 ATP Group Annual Report 2019. Available at https://www.atp.dk/en/dokument/atp-group-annual-report-2019.

and SUPP but these do not play as significant a role as the ATP scheme does and in the case of LD or SUPP were not comparable in their function.[1216]

The governance structure of the ATP fund reflects the important role of social partners and collective bargaining in the Danish pension system (and more broadly in Denmark).

Future developments

A package of measures has been proposed to reform the ATP in response to the challenges of low and falling interest rates and increasing longevity amongst its members.[1217] Under the proposals, the ATP would be permitted to use a greater proportion of assets in riskier assets.[1218]

The new Mandatory Pension Scheme, OP (Obligatorisk Pensionsordning), became active in 2020.[1219] Run by ATP Group, it covers those on transfer incomes.[1220] In 2020, the contribution rate was equal to 0.3% of the transfer income; this is set to increase to 3.3% by 2030.[1221] Contribution rates may be increased further; a decision is due by 2029 at the latest.[1222] The OP does not reduce the transfer income received by the individual since contributions are funded by the reallocation of funds from the public social initiatives fund (Satspuljen).[1223] Contributions to the OP accrue pension entitlements on the same terms as ATP contributions do.[1224]

[1216] Vittas, D. (2008), 'A Short Note on the ATP Fund of Denmark', World Bank Policy Research Working Paper 4505. Available at http://documents1.worldbank.org/curated/en/273361468026054863/pdf/wps4505.pdf.

[1217] ATP (2021), 'Proposal to amend the ATP Act sent for a hearing'. Available at https://www.atp.dk/en/news-and-insights/proposal-amend-atp-act-sent-hearing.

[1218] Ferris, D. (2021), 'Danish legislation proposals could allow ATP more investment freedom', *European Pensions*. Published 26th January 2021. Available at https://www.europeanpensions.net/ep/Proposals-could-allow-ATP-more-investment-freedom.php.

[1219] ATP (2020), 'Obligatorisk Pensionsordning (Mandatory Pension Scheme)'. Available at https://www.atp.dk/en/dokument/obligatorisk-pensionsordning-mandatory-pension-scheme-2020.

[1220] Ibid.

[1221] Ibid.

[1222] Ibid.

[1223] Ibid.

[1224] Ibid.

12.4. Finland (Earnings-related pension)[1225]

Basic characteristics

Type of scheme	**Mandatory**
Type of provider(s)	Pension insurance companies, company pension funds, industry-wide pension funds and Keva (Finnish pension agency involved in pensions of public sector workers in state, municipal, and state church positions).
Status of the scheme	Active
Year scheme became active	1962 for Private Sector Employees' Pension Act; 1964 for Local Government Employees Pensions Act; 1967 for State Employees' Penson Act.

Scope of the scheme

Employer size(s) covered	**All employer sizes are covered**
Employer sector(s) covered	Public sector, private sector, farmers, and the self employed
Type of employees covered	Employees aged 17 or older, people caring for children under three years old, and students attending degree courses of up to five years.
Coverage for self-employed persons?	Yes

Overview of the Finnish pension system

The Finnish pension system comprises of a national pension (kansaneläke)[1226], a mandatory occupational pension (työeläke)[1227] and voluntary occupational pension schemes.

The mandatory occupational pension requires employers to arrange a defined benefit (hereafter DB) plan for their employees.[1228] The employer deducts earnings-related pension contributions from the employee’s gross salary and transfers the contributions to the relevant pension provider. Employers may be in the public or private sector, and there is a requirement for the self-employed to also arrange a DB pension under law.[1229]

Voluntary occupational pensions exist in the form of company and industry wide pension funds, group pension contracts with life insurance companies and book reserve private pension plans.

Transition mechanisms

[1225] Finland’s earnings-related pension provides the bulk of pension income in Finland and is in this way different from the other schemes covered in these fiches, which are supplementary schemes; however, it is included as it possesses features that could be deployed in auto-enrolment pension schemes.

[1226] National Pension Act, 2007 (*Kansaneläkelaki*), available at https://www.finlex.fi/fi/laki/ajantasa/2007/20070568?search%5Btype%5D=pika&search%5Bpika%5D=el%C3%A4kelaki.

[1227] The Employees Pensions Act, (*Työntekijän eläkelaki*), available at https://www.finlex.fi/en/laki/kaannokset/2006/en20060395.pdf.

[1228] Section 141 of the Employees Pensions Act, (*Työntekijän eläkelaki*) for the private sector. See also Section 1 of the Public Sector Pensions Act, 2016 (*Julkisten alojen eläkelaki*), available at https://www.finlex.fi/fi/laki/ajantasa/2016/20160081 for public sector.

[1229] Section 1 of the Self-Employed Persons’ Pensions Act, 2006 (*Yrittäjien eläkelaki*), available at https://www.finlex.fi/fi/laki/ajantasa/2006/20061272. See also https://www.tyoelake.fi/en/employers-obligations/.

None.

Coverage rates associated with the scheme

Overall

The employment pensions laws of the private sectors are:

- The Employees Pensions Act (TyEL): the principal pension act covering employees in the private sector;[1230]
- The Seamen's Pensions Act (MEL);[1231]
- The Self-Employed Persons' Pensions Act (YEL);[1232]
- The Farmers' Pensions Act (MYEL) covers farmers, fishermen and reindeer herders.[1233]

Public sectors employment laws are:

- The Public Sector Pensions Act (JuEL);[1234]
- The Law on the Orthodox Church. [1235] [1236]

As of 31st December 2019, 3,766,000 persons aged between 17 and 68 were covered by the earnings-related pension scheme.[1237]

Eligible employees

Employees aged 17 and over and those earning at least €61.37 per calendar month (in 2021) must be enrolled in a statutory earnings-related pension plan.[1238] Those who are self-employed do not have to enrol until they reach the age of 18, have been an entrepreneur for at least 4 months and are earning at least €8,063.57 per annum (in 2021).[1239] The following groups can also accrue benefits:[1240]

- Retirees who are working;
- Persons caring for children under three years old;[1241]
- Students attending a university degree courses or a vocational qualification;
- Persons on social benefits such as parental allowance, sickness allowance, earnings related unemployment allowance;
- Employees where the majority of work is done abroad.

[1230] The Employees Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1231] The Seamen's Pensions Act (*Merimiesten eläkelaki*), available at https://www.finlex.fi/fi/laki/ajantasa/2006/20061290?search%5Btype%5D=pika&search%5Bpika%5D=Merimiesten%20el%C3%A4kelaki.

[1232]The Self-Employed Persons' Pensions Act, 2006 (*Yrittäjien eläkelaki*), available at https://www.finlex.fi/fi/laki/ajantasa/2006/20061272.

[1233] The Farmers' Pensions Act, 2006 (*Maatalousyrittäjien eläkelaki*) available at https://www.finlex.fi/fi/laki/ajantasa/2006/20061280?search%5Btype%5D=pika&search%5Bpika%5D=Maatalousyritt%C3%A4jien%20el%C3%A4kelaki.

[1234] Public Sector Pensions Act, 2016 (*Julkisten alojen eläkelaki*), available at https://www.finlex.fi/fi/laki/ajantasa/2016/20160081.

[1235] The Law on the Orthodox Church, 2006 (*Laki ortodoksisesta kirkosta*), available at https://www.finlex.fi/fi/laki/ajantasa/2006/20060985.

[1236] Section 3 of the Employee Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1237] Finnish Centre for Pensions (ETK) (2021), 'Finnish Centre for Pensions Pocket Statistics 2021'. Available at https://www.julkari.fi/bitstream/handle/10024/142802/pocket-statistics-2021.pdf.

[1238] Section 4 of the Employee Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1239] Section 4 of the Self-Employed Persons' Pensions Act, 2006 (*Yrittäjien eläkelaki*). See also https://www.etk.fi/suomen-elakejarjestelma/elaketurva/tyoelaketurvan-kattavuus-ja-vakuuttaminen/usein-kysyttya-yel-vakuuttamisesta/.

[1240] https://www.tyoelake.fi/en/employers-obligations/.

[1241] Act on the reimbursement of a pension from state funds for the period of care or study of a child under three years of age, 2003 (*Laki valtion varoista suoritettavasta eläkkeen korvaamisesta alle kolmivuotiaan lapsen hoidon tai opiskelun ajalta*), available at https://www.finlex.fi/fi/laki/ajantasa/2003/20030644.

Contribution rates of the scheme

Contributions are paid by employers, employees, and entrepreneurs.[1242] Employers deduct employee contributions from the employee's gross wage, both the employees and the employer's contributions are then paid to the pension institution.[1243]

As shown in the table below, the contribution rates differ according to each pension act.

While the self-employed contribute to the earnings-related pension, there is a high degree of discretion as to the wage on which contributions are calculated. The system requires that the contribution base for the self-employed is equal to their 'confirmed income' i.e., the wage that would be paid if the work were carried out by another equally competent person. Self-employed persons determine their confirmed income. Confirmed income is not based on the financial performance of the business; instead it should correspond to the monetary value of the self-employed person's work[1244]. The minimum level of income subject to pension contributions for the self-employed was 19% of the average wage in 2019; it is defined in euros and updated annually by the wage coefficient, which is constructed by weighting earnings growth by 80% and price inflation by 20%. Self-employed persons earning less than this threshold do not accrue any earnings-related pension benefits.[1245]

Table 19 Contribution rates for earnings-related pensions in 2021

Insured persons/pension act	Contribution % of cross wages	Employees/Self-employed persons' contribution share %, under 53; 63 and above	Employees/Self-employed persons' contribution share %, 53-62 years
Private sector wage earners / Employees Pensions Act (TyEL)	24.4	7.15	8.65
Seafarers/Seafarer's Pensions Act (MEL)	19.0	7.15	8.65
Keva's member organisations/Public Sector Pensions Act (JuEL)	28.3	7.15	8.65
State/Public Sector Pensions Act (JuEL)	24.4	7.15	8.65
Evangelical-Lutheran Church/Public Sector Pensions Act	28.97	7.15	8.65
The self-employed/The Self-employed Persons' Pensions Act (YEL)	23.4	24.1	25.6
Farmers and grant recipients/Farmers' Pensions Act (MYEL)	13.9/13.3	24.1	25.6

Source: Finnish Centre for Pensions[1246]

Providers

Pensions are administered by different institutions depending on the sector. Earnings related statutory pension provisions for private sector workers, farmers[1247] and self-employed persons are administered by pension insurance companies, company pension funds and industry-wide pension

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[1242] Section 1 of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1243] https://www.tyoelake.fi/mika-tyoelake-on/elakkeet-rahoitetaan-maksuilla-ja-sijoituksilla/#93bb705e

[1244] Tela.fi. 2021. *Pension contributions - TELA*. [online] Available at: <https://www.tela.fi/en/pension_contributions#self_employed_persons> [Accessed 13 May 2021].

[1245] Self-Employed Persons' Pensions Act, 2006 (*Yrittäjien eläkelaki*). See also https://www.oecd.org/finland/PAG2019-FIN.pdf; https://www.ilmarinen.fi/yrittaja/yel-vakuutus/yrittajan-tyotulo/.

[1246] Finnish Centre for Pensions (ETK), 'Pension Contributions'. Available at: https://www.etk.fi/en/finnish-pension-system/financing-and-investments/pension-contributions/.

[1247] Famers have a separate Social Insurance Institution (Maatalousyrittäjien eläkelaitos) who provide pension cover and social security to farmers, reindeer herders, fishermen, forest owners and recipients of scientific or artistic grants and scholarships. See: https://www.mela.fi/

funds.[1248] Earnings related statutory pension provision for local government, the State, the Evangelical-Lutheran Church are administered by Keva and public institutions.[1249] Keva is the Finnish pension agency responsible for pensions of public sector workers in central and local government and state church positions. Keva plays a different role in the case of local government than in the case of central government and the church; while Keva administers the earnings-related pension for central and local government and the church, in the case of local government it manages investments while for central government and the church investments are managed separately. As a result of its role in the pensions system, Keva is Finland's largest investor of earnings-related pension assets. Pension insurance companies manage earnings-related pension provision for private sector employees and self-employed persons, accounting for around 1.8 million or about 70% of all those insured for an earnings-related pension in Finland.[1250] Currently, there are four pension insurance companies serving the private sector. The onus is on the employer to choose which pension insurance company to use.

While the earnings-related pension system is decentralised to various pension providers, the Finnish Centre for Pensions co-ordinates the schemes, resulting in a single pension payment even for people who have been members of different earnings-related pension plans.[1251] Competition amongst pension providers is mainly in level of service provided to employers and employees.

Tax and financial incentives

Pension income is subject to a tax deduction in municipal and state taxation.[1252] These are annual municipal and state thresholds below which people do not have to pay tax:

- For municipal taxation, the allowance is deducted at a rate of 51% of the amount by which the taxable income exceeds the full allowance. The amount of pension income allowance in council tax is based on the full national pension and basic allowance for all low-income individuals. The pension income allowance cannot exceed the amount of the pension[1253]
- For state taxation, the allowance is withdrawn at the rate of 38% of the amount by which the income subject to tax exceeds the total allowance. The pension income allowance may not exceed the amount of the pension.[1254]

Table 20 Full amount of pension income deduction, the annual income level as of which the pension recipient starts to pay tax and the annual income level as of which no deduction is granted (in 2021).

Taxation	Full deduction	Pension, tax becomes payable	Pension, no deduction*
Municipal taxation	9,270	11,674	27,446
State taxation	11,150	24,628	40,493

Note: *This is the level of pension income at which no deductions will be allowed.
Source: Finnish Centre for Pensions[1255]

Opt-out conditions

[1248] Section 2(1) of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1249] Section 2 of the Public Sector Pensions Act, 2016 (*Julkisten alojen eläkelaki*). See also https://www.tyoelake.fi/en/employers-obligations/.

[1250] https://www.etk.fi/en/work-and-pensions-abroad/international-comparisons/financing-and-investments/investment-return-on-pension-assets/.

[1251] Section 1 of the Act on the Finnish Centre for Pensions (Laki Eläketurvakeskuksesta),available at https://www.finlex.fi/fi/laki/ajantasa/2006/20060397. See also https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Finland.pdf;

[1252] Finnish Centre for Pensions. Available at: https://www.etk.fi/en/finnish-pension-system/pension-security/pension-income-level/taxation-and-contributions/.

[1253] OECD, available at: https://www.oecd.org/pensions/public-pensions/PAG2017-country-profile-Finland.pdf.

[1254] Ibid.

[1255] Finnish Centre for Pensions, available at: https://www.etk.fi/en/finnish-pension-system/pension-security/pension-income-level/taxation-and-contributions/.

None.

Accumulation conditions

Prior to 2005, beneficiaries started accruing pension benefits from the age of 23 as follows:

- 1.5% of annual gross wages before you turned 60 years, and
- 2.5% of annual gross wages after you turned 60 years.

Between 2005 and 2016, beneficiaries started accruing pension benefits from the age of 18 as follows:

- 1.5% of annual gross wages if you were between 18 and 52 years old,
- 1.9% of annual gross wages if you were between 53 and 62 years old, and
- 4.5% of annual gross wages if you were between 63 and 67 years old.

As of 2017, beneficiaries start accruing pension benefits from the age of 17 (18 for the self-employed) at a rate of:

- 1.5% of gross annual earnings, or
- 1.7% of gross annual earnings if you are between 53 and 62 years old during the transition period from 2017 to 2025. From 2026 onwards the rate at which benefits are accrued will be 1.5% for all.[1256]

The accrual of pension benefits ends when the beneficiary reaches the pension insurance age limit which is 68 for those who were born prior to 1958, 69 for those born between 1958 and 1961, and 70 for those born after 1961.[1257]

Earnings-related pension acts do not apply retroactively, as such, former age limits and benefit accrual rates affect the provision of current pensions.[1258] The amount of earnings-related pension benefit accrued depends on the duration of employment and earnings, there is no upper limit set for pensions.[1259]

The earnings-related pension is partly PAYG and partly funded.[1260]

Time commitment

The age at which beneficiaries can access their earnings-related pension depends on when they are born, the retirement age is as follows:

- 63 years for persons born in 1954 or earlier;
- 63 years and 3 months for persons born in 1955;
- 63 years and 6 months for persons born in 1956;
- 63 years and 9 months for persons born in 1957;
- 64 years for persons born in 1958;
- 64 years and 3 months for persons born in 1959;
- 64 years and 6 months for persons born in 1960;
- 64 years and 9 months for persons born in 1961;

[1256] Section 65 of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*); See also Section 62 of the Self-Employed Persons' Pensions Act, 2006 (*Yrittäjien eläkelaki*).

[1257] Section 82 and 83 of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*); https://stm.fi/en/earnings-related-pension.

[1258] https://www.tyoelake.fi/en/how-much-pension/

[1259] https://ec.europa.eu/social/main.jsp?catId=1109&langId=en&intPageId=4524.

[1260] Finnish Centre for Pensions (ETK), 'Money Flows'. Available at https://www.etk.fi/en/finnish-pension-system/financing-and-investments/money-flows/.

- 65 years for persons born in 1962-1964; [1261]
- The retirement age of persons born in 1965 and later will be adjusted with the life expectancy which will be determined at the age of 62 years.[1262]

Beneficiaries can choose to take either 25% or 50% of their accrued earnings-related pension prior to retirement. If this 'partial pension' is taken before the lowest retirement age, the amount of the pension will be reduced by 0.4% for each month it has been brought forward.[1263] Those born prior to 1964 can get a partial pension at 61, those born in 1964 can get a partial pension at 62, those born after 1965 can get a partial pension 3 years prior to retirement. [1264]

Investment strategy

Earnings-related pensions are managed in the private sector by pension insurance companies, special pension providers, company pension funds, industry-wide pension funds and by public sector pension providers.[1265] The general guiding principle for pension providers' investment operations is to seek profitable and secure investment opportunities. Providers are free to invest in the global financial markets subject to solvency requirements.

Private sector pension providers are subject to solvency regulation, the riskier the pension provider's investment allocation, the higher the solvency capital requirement. The solvency limit is set at a level whereby the solvency capital requirements are expected to be met over a one-year horizon with 97% probability.[1266]

Although there is no corresponding regulation, public sector pension funds and private sector pension providers are required to ensure that their investments are secure, deliver a high return, are readily convertible into cash and that they are appropriately diversified and spread. The State Pension Fund has to follow the provisions of law and the Ministry of Finance additionally issues direct instructions concerning its investment operations. Current instructions are that:

- Fixed-income instruments account for a minimum of 35%;
- Equity investments for no more than 55%; and
- Other investments for no more than 12% of the State Pension Fund's investment portfolio.[1267]

Decumulation conditions

Pensions are not paid out automatically and must be claimed approximately two months before retiring.[1268] The earnings-related pension is structured as a DB scheme, as such, the pension provider pays the earnings-related pension to the beneficiary on a monthly basis.[1269] The monthly pension payment is calculated as:
Pension per month = [(Annual earnings)(1.5%)]/(12 months)(life expectancy coefficient)]

The life expectancy coefficient is calculated using unisex mortality statistics from the past 5 years and assumes a yearly discount rate of 2%.[1270] As life expectancy increases, monthly pensions will decrease. If a beneficiary retires later than the retirement age an additional 0.4% will be added to

[1261] Section 11 of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1262] Section 82 of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*); https://ec.europa.eu/social/main.jsp?catId=1109&langId=en&intPageId=4524#:~:text=The%20general%20retirement%20age%20for,ages%20of%2016%20and%2065.

[1263] Section 16 of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1264] Section 15 of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1265] Section 2(1) of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1266] Law calculating the solvency limit of a pension institution and diversifying investments (*Lakieläkelaitoksen vakavaraisuusrajan laskemisesta ja sijoitusten hajauttamisesta*), available at https://www.finlex.fi/fi/laki/alkup/2015/20150315..

[1267] https://www.etk.fi/en/work-and-pensions-abroad/international-comparisons/financing-and-investments/investment-return-on-pension-assets/.

[1268] Section 13 of the Employee Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1269] Section 112 of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1270] https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Finland.pdf their pension payment for each postponed month or 4.8% per year.[1271] Similarly if a beneficiary retires earlier than the retirement age 0.4% will be subtracted from their pension payment for each postponed month or 4.8% per year.

If the earnings-related pension is less than €30 a month it will be paid as a lump sum.[1272]

Performance of underlying investment vehicles

Table 21 Annualized performance of underlying investment vehicles

Type of provider	2020	2016-2020	1998-2020
Insurance companies	4.7%	5.5%	5.4%
Public sector schemes	4.9%	5.8%	5.8%
Company pension funds and industry wide pension funds	5.1%	5.6%	6.0%

Source: Tela[1273]

Solidarity clauses

None.

Interactions with other pension schemes

An individual's earnings-related pension entitlements affect his or her entitlements in the public pension system. Each additional euro of earnings-related pension entitlement reduces one's national pension by approximately 50 cents, such that beyond a certain level of earnings-related pension – as of 2021, €1373.30 per month for single retirees and €1230.63 per month for married or cohabiting retirees – entitlements one does not receive any national pension.[1274] As of 31st December 2020, 64% of pension recipients received the earnings-related pension but no national pension, 31% received both the earnings-related pension and the national pension, and 6% received the national pension but not the earnings-related (these numbers do not sum to 100% because of rounding).[1275]

Earnings-related pensions may also affect other social security payments such as sickness allowance, parental allowance, and the unemployment allowance.[1276]

Future developments

Since January 2017, the retirement age has been raised by 3 months annually until reaching 65 years by 2027. After that, the retirement age will be linked to life expectancy.[1277] From 2030, there will be an annual increase in the retirement age of no more than two months[1278] and the normal retirement age is expected to increase to 68 around 2060.[1279]

[1271] Section 83 of the Employee Pensions Act, 2006 (*Työntekijän eläkelaki*); https://stm.fi/en/earnings-related-pension.

[1272] Section 114 of the Employees Pensions Act, 2006 (*Työntekijän eläkelaki*); https://www.tyoelake.fi/en/claim-your-pension/.

[1273] See: https://www.tela.fi/tuottoyhteenvedot

[1274] Finnish Centre for Pensions (ETK), 'National pension'. Available at https://www.etk.fi/en/finnish-pension-system/pension-security/national-pension/.

[1275] Finnish Centre for Pensions (ETK) (2021), 'Finnish Centre for Pensions Pocket Statistics 2021'. Available at https://www.julkari.fi/bitstream/handle/10024/142802/pocket-statistics-2021.pdf.

[1276] https://www.etk.fi/en/finnish-pension-system/pension-security/pension-coverage-and-insurance/faqs-on-yel-insurance/

[1277] https://ec.europa.eu/social/main.jsp?catId=1109&langId=en&intPageId=4524; see also Section 87 of the Employee Pensions Act, 2006 (*Työntekijän eläkelaki*).

[1278] https://stm.fi/en/earnings-related-pension.

[1279] https://www.oecd.org/finland/PAG2019-FIN.pdf.

From 2026 onwards, the rate at which benefits are accrued will be 1.5% of gross annual earnings for all beneficiaries.[1280] Previously accruals were calculated on gross annual earnings minus employers' pension contributions.

There is discussion regarding the privatisation of Keva. If Keva were to be privatised it would introduce an additional pension insurance company into the market and be one of the largest pension insurance providers.

[1280] https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Finland.pdf.

12.5. France (Plan d'Épargne Retraite)

Basic characteristics

Type of scheme	**Voluntary opt-in, voluntary access auto-enrolment and company-level mandatory**
Type of provider(s)	Private – insurers, asset management companies and banks
Status of the scheme	Active
Year scheme became active	2019 (though similar schemes existed before, mostly since 2003; voluntary access auto-enrolment was made possible in 2008[1281])

Scope of the scheme

Employer size(s) covered	**All**
Employer sector(s) covered	All (private sector for occupational elements)
Type of employees covered	All
Coverage for self-employed persons?	Yes (through plans d'épargne retraite individuels [PERIs])

Overview of the French pension system

The French pension system consists of the public pension, a mandatory occupational pension and voluntary occupational and personal pension.[1282]

The French public pension is a defined benefit scheme that pays between 37.5% and 50% of the beneficiary's average earnings, subject to an earnings ceiling.[1283] The public pension also has a contributory minimum pension whose value is indexed to price inflation.[1284] A ceiling applies to the benefits a beneficiary can receive just from the public pension.[1285] There exists a means-tested minimum benefit called 'ASPA' that supplements the income mostly of those who did not work a full career (limiting their entitlements in the mandatory occupational scheme).[1286]

The French pension system features a mandatory supplementary occupational scheme called Agirc-Arrco, which covers all private sector and agricultural workers.[1287]Agirco-Arrco was formed at the

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[1281] Naczyk, M. 'The Politics of the Segmentation and De-segmentation of the French Market for Private Retirement Accounts' in Ledoux, C. (ed.) (2020), *The Dynamics of Welfare Markets: Private Pensions and Domestic/Care Services in Europe*.

[1282] Better Finance (2020) 'Country case: France', *Pension Savings: The real return.* Available at: https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-France.pdf

[1283] Centre of European and International Liaisons for Social Security (CLEISS) (2021), 'The French Social Security System III – Retirement'. Available at https://www.cleiss.fr/docs/regimes/regime_france/an_3.html.

[1284] OECD (2019), *Country profile: France*, 'Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-France.pdf.

[1285] Ibid.

[1286] OECD (2019), *Country profile: France*, 'Pensions at a Glance 2019';. See also Articles L8151 to L815-13, Articles R815-1 to R815-48 and Article D815-1 to D815-2 of the Social Security Code (*Code de la sécurité sociale*).

[1287] OECD (2019), *Country profile: France*, 'Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-France.pdf. See also National Interprofessional Agreement establishing the Agirc-Arrco Supplementary Pension Scheme, 2017 (Accord national interprofessionnel instituant le régime AGIRC-ARRCO de retraite complémentaire), available at https://www.agirc-arrco.fr/fileadmin/agircarrco/documents/conventions_accords/2017/ANI_Retraite_17nov2017_01012019.pdf.

start of 2019 when the ARRCO and AGIRC schemes merged.[1288] Previously, the ARRCO scheme had covered all sorts of employees in the private and agricultural sectors while the AGIRC scheme covered managerial and executive workers.[1289] Agirc-Arrco is not a funded scheme; benefits are calculated according to a points system. A mandatory points-based occupational scheme called RAFP covers approximately 4.5 million public sector workers.[1290]

Life insurance contracts – although not typically intended to be used for pension provision – are the predominant vehicle for long-term saving in France and are often used by French households to save for retirement.[1291]

The average pre-retirement income replacement rate in France was 73.6% in 2018.[1292]

Transition mechanisms

The new Plan d'Épargne Retraite (PER) became available from 1st October 2019.[1293] It was introduced through the so-called 'PACTE Law', dated 22nd May 2019. [1294] The 'PACTE' Law is a wide-ranging law that is the legislative basis of the Action Plan for Business Growth and Transformation (Plan d'Action pour la Croissance et la Transformation des Entreprises, PACTE).[1295] It aims to support and stimulate the growth of small- and medium-sized businesses in France,[1296] to foster innovation[1297] and to increase the social role of businesses in France. [1298] One way in which it seeks to do so is by easing and simplifying businesses' regulatory obligations.

The new PER will gradually replace previously-existing voluntary occupational and personal pension plans (but not the Agirc-Arcco scheme), including – but not limited to[1299] – PERCOs (Plans d'Épargne pour la Retraite Collectif)[1300] and PERPs (Plans d'Épargne Retraite Populaire).[1301, 1302] The new PER involves three types of plans:

[1288] OECD (2019), *Country profile: France*, 'Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-France.pdf.

[1289] Ibid.

[1290] Retraite additionnelle de la Fonction publique (RAFP), 'What is RAFP ?'. Available at https://www.rafp.fr/en/what-rafp.

[1291] Šebo, J. and Voicu, Ş.D. eds. (2019), *Country case: France*, 'Pension Savings: The Real Return, 2019 edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-French-Country-Case.pdf.

[1292] Better Finance (2020) 'Country case: France', *Pension Savings: The real return.* Available at: https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-France.pdf

[1293] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1294] Law No. 2019-486 on the growth and transformation of businesses, 2019, (*Loi n° 2019-486 relative à la croissance et la transformation des entreprises)*, available at https://www.legifrance.gouv.fr/loda/id/JORFTEXT000038496102/.

[1295] French Government, 'PACTE, the Action Plan for Business Growth and Transformation'. Available at https://www.gouvernement.fr/en/pacte-the-action-plan-for-business-growth-and-transformation.

[1296] Chapter I: Liberated companies (Articles 1 to 70) of the Law No. 2019-486 on the growth and transformation of businesses, 2019, (*Loi n° 2019-486 relative à la croissance et la transformation des entreprises)*, available at : https://www.legifrance.gouv.fr/loda/id/JORFTEXT000038496102/.

[1297] *Ibid*, Chapter II: More innovative companies (Articles 71 to 174).

[1298] Chapter III: Fairer companies (Articles 175 to 192); French Government, 'PACTE, the Action Plan for Business Growth and Transformation'. Available at https://www.gouvernement.fr/en/pacte-the-action-plan-for-business-growth-and-transformation.

[1299] Other plan types being replaced by the new PER include PEEs, PEREs, Corem, Complementaire Retraite des Hospitaliers (CRH), Corem and Préfon and Loi Madelin plans.

[1300] Articles L3334-1 to L3334-15 of the Labour Code (*Code du travail*), available at : https://www.legifrance.gouv.fr/codes/id/LEGISCTA000006189701/.

[1301] Articles L144-2 to L144-4 and Articles R144-4 to R144-31 of the Insurance Code (*Code des assurances*), available at https://www.legifrance.gouv.fr/codes/texte_lc/LEGITEXT000006073984/2021-03-31/.

[1302] Service-public.fr (2020), 'Épargne retraite : Perp, contrat Madelin, Perco, Préfon ne sont plus commercialisés'. Available at https://www.service-public.fr/particuliers/actualites/A14343.

- individual retirement savings plans (PERIs, plans d'épargne retraite individuels)[1303] – these are the successors[1304] to PERPs[1305] and Madelin plans[1306];
- collective company retirement savings plans (PERECOs, plans d'épargne pour la retraite collectifs)[1307] – these are the successors[1308] to PERCOs[1309];
- compulsory company retirement savings plans (PEROs, plans d'épargne retraite obligatoires)[1310] – these are the successors[1311] to article 83 plans, which are defined contribution plans based on group contracts with an insurance company that are mandatory at the company level.[1312]

In contrast to the previous regime, these three different plan types have a shared regulatory and tax treatment[1313] (see below for more details), and savings are transferable between them[1314] (see below for more details).

The preceding types of plan (PERCOs, PERPs, etc.) are being phased out in a gradual manner. Existing such plans will be able to continue to operate for existing members but stopped being available to new members starting from 1st October 2020.[1315]

Coverage rates associated with the scheme

In 2018 (that is, prior to the reform that introduced the PER), PERCOs and PEEs (both 'legacy' voluntary occupational schemes replaced by the PER in the PACTE Law) covered approximately 25% of the working-age population in France.[1316] Voluntary personal plans are less popular, covering just over 7% of the working-age population in 2019.[1317]

By 31st December 2019, 65,000 individuals were members of a PERI, 314,000 were members of a PERECO (around half of whom were contributing to that plan) and 1,000 were members of a PERO.[1318]

Contribution rates of the scheme

[1303] Articles L224-28 to L224-30 of the Monetary and Financial Code, (*Code monétaire et financier*), available at https://www.legifrance.gouv.fr/codes/id/LEGISCTA000038818819/.

[1304] Service-public.fr (2020), 'Épargne retraite : Perp, contrat Madelin, Perco, Préfon ne sont plus commercialisés'. Available at https://www.service-public.fr/particuliers/actualites/A14343.

[1305] Articles L144-2 to L144-4 and Articles R144-4 to R144-31 of the Insurance Code (*Code des assurances*).

[1306] Law n° 94-126 on initiative and individual enterprise, 1994 (Loi n° 94-126 relative à l'initiative et à l'entreprise individuelle), available at https://www.legifrance.gouv.fr/loda/id/LEGITEXT000005615296/.

[1307] Articles L224-13 to L224-16 of the Monetary and Financial Code, (*Code monétaire et financier*).

[1308] Service-public.fr (2020), 'Épargne retraite : Perp, contrat Madelin, Perco, Préfon ne sont plus commercialisés'. Available at https://www.service-public.fr/particuliers/actualites/A14343.

[1309] Articles L3334-1 to L3334-15 of the Labour Code (*Code du travail*).

[1310] Article L 224-23 of the Monetary and Financial Code, (*Code monétaire et financier*).

[1311] Service-public.fr (2020), 'Épargne retraite : Perp, contrat Madelin, Perco, Préfon ne sont plus commercialisés'. Available at https://www.service-public.fr/particuliers/actualites/A14343.

[1312] Lavigne, A. (2003), 'Pension Funds in France: Still a Dead-End?', *Geneva Papers on Risk and Insurance - Issues and Practice*, 28(1), pp.133-156. Available at https://halshs.archives-ouvertes.fr/halshs-00007671/document.

[1313] Articles 79 to 81 ter and Articles 156 of the General Tax Code (*Code général des impôts*), available at https://www.legifrance.gouv.fr/codes/id/LEGISCTA000006197199/.

[1314] Article L 224-40 of the Monetary and Financial Code (*Code monétaire et financier*).

[1315] Service-public.fr (2020), 'Épargne retraite : Perp, contrat Madelin, Perco, Préfon ne sont plus commercialisés'. Available at https://www.service-public.fr/particuliers/actualites/A14343.

[1316] Šebo, J. and Voicu, Ș.D. eds. (2019), *Country case: France*, 'Pension Savings : The Real Return, 2019 edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-French-Country-Case.pdf.

[1317] OECD (2020), 'Pension Markets in Focus 2020'. Available at http://www.oecd.org/pensions/pensionmarketsinfocus.htm.

[1318] DREES, Supplementary pension data – data as of December 31, 2019, Datasets: Optional supplementary retirement and retirement savings. Available at https://drees2-sgsocialgouv.opendatasoft.com/explore/dataset/2034_la-retraite-supplementaire-facultative-et-l-epargne-retraite/information/.

PER plans do not have a common minimum or default contribution rate. Contributions can come in several forms:[1319]

- voluntary payments by the saver;[1320]
- capital from an incentive scheme linked to company performance and results (*intéressement*);[1321]
- capital from the profit-sharing arrangement (*participation*) that is compulsory for all companies with 50 or more employees;[1322]
- capital from entitlements from leave not taken;
- transfers from another retirement savings product (e.g. another PER or a PERCO, a PERP, etc.);[1323]
- compulsory payments by the saver or his/her employer, in the case of PEROs;[1324] and,
- in the case of PERECOs, initial payments and, in a uniform way for all employees, periodic payments at a frequency defined in the plan's regulations.[1325]

Mandatory contributions are treated differently from other contributions at the decumulation stage (see below for further details).[1326] There is a ceiling on voluntary employer contributions to PERECOs; they cannot exceed three times the employee's contributions and cannot exceed €6,581.76.[1327] Companies with at least 50 employees must pay the *forfait social* on their PERECO contributions; the *forfait social* payment does not count towards the ceiling.[1328]

Providers

PERs can either operate through a group insurance contract, in which the provider is an insurance company, mutual insurance company or pension institution, or through a securities account, in which case the provider is a bank or asset management company.[1329]

Tax and financial incentives

The tax treatment of PERs operates on the basis of compartments, with voluntary contributions, compulsory contributions and sums and rights from employee savings plans (e.g. profit-sharing plans) subject to different tax treatments.

A saver's contributions to a PER can be deducted from taxable income up to a certain ceiling; the ceiling applies to a 'tax household'.[1330] A tax household is a set of people who file a single income tax return (i.e. an individual, a married couple, etc.). If contributions are not deducted from taxable income, taxation is more favourable at the decumulation stage. The tax paid at the decumulation phase varies also according to the sort of payments made into the PER and the manner of decumulation (taking capital as a lump-sum versus using it to purchase an annuity).

Employer contributions to a PER are also exempt from taxation up to a ceiling.

[1319] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1320] Article 224-2, 1° of the Monetary and Financial Code (*Code monétaire et financier*).

[1321] Article 224-2, 2° of the Monetary and Financial Code (*Code monétaire et financier*).

[1322] Article L3324-12 of the Labour Code (*Code du travail*).

[1323] Article L224-40 of the Monetary and Financial Code (*Code monétaire et financier*).

[1324] Article 224-2, 3° of the Monetary and Financial Code (*Code monétaire et financier*).

[1325] Article L224-20 of the Monetary and Financial Code (*Code monétaire et financier*).

[1326] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1327] Article L3332-11 of the Labour Code (*Code du travail*). See also Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1328] Article L3322-2 of the Labour Code (*Code du travail*).

[1329] Article L224-1 of the Monetary and Financial Code (*Code monétaire et financier*). See also Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1330] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

Payments into a PER of sums and rights from company employee savings schemes (profit-sharing, participation, employer contributions) are exempt from income tax.

As far as the PERI is concerned, the ceiling varies according to the person's status. In case of employee status, the ceiling is equal to the higher of the following two amounts:

- 10% of professional income for 2020, net of social security contributions and professional expenses, with a maximum deduction of €32,909,

- or €4,114, whichever is higher.

In case of self-employed status, the ceiling is equal to the higher of the two following amounts:

- 10% of the taxable profits of 2021, up to a limit of €329,088 + 15% of the taxable profit between €1 and €329,088

- or €4,114 + 15% of taxable profits between €1 and €329,088, if this amount is higher.[1331]

With respect to both PERECO and PERO, voluntary and compulsory employee payments into a company PER in a given year are deductible from taxable income for that year. This deduction must not exceed an overall ceiling set for each member of the tax household. This ceiling is equal to the higher of the following two amounts:

- 10% of professional income for 2020, net of social security contributions and professional expenses, with a maximum deduction of €32,909,

- or €4,114 if this amount is higher.

If the voluntary payments are not deducted from an individual's taxable income, only the capital gains will be taxed when the savings are liquidated.

Taxation on exit depends on the nature of the payments into the PER, and the method of liquidation of the savings (annuity or lump sum).[1332] Early withdrawals incur a different tax treatment.

Opt-out conditions

PERIs are open to and voluntary for all (including the self-employed).[1333]

PERECOs are open to and voluntary for all employees of companies who implement them, though a certain period of service may be required (though the required length of service may not be greater than three months).[1334] A PERECO can provide that a company's employees are automatically members of the plan;[1335] in this case, the employees can opt out within 15 days.[1336] Automatic enrolment in PERCOs was made possible in 2008, and the 2010 Woerth reform provided that 50% of employees' income from profit-sharing schemes would automatically be contributed to their PERCO unless they opted out.[1337] Data on how prevalent automatic enrolment in PERECOs and PERCOs is does not appear to be available. A PERECO can be established in a company by the decision of the company, by (collective labour) agreement, by an agreement between the company and trade union representatives within the company, by agreement of the company's social and economic committee, or by the ratification of a proposal by the head(s) of the company by two-

[1331] Article 163 quatervicies of the General Tax Code (*Code général des impôts*).

[1332] *Ibid.*

[1333] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1334] Article L224-17 of the Monetary and Financial Code (*Code monétaire et financier*).

[1335] Article L224-17 of the Monetary and Financial Code (*Code monétaire et financier*).

[1336] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1337] Naczyk, M. 'The Politics of the Segmentation and De-segmentation of the French Market for Private Retirement Accounts' in Ledoux, C. (ed.) (2020), *The Dynamics of Welfare Markets: Private Pensions and Domestic/Care Services in Europe*.

thirds of employees.[1338] In companies where a social and economic committee or a union representative(s) is present, this party(ies) must be consulted prior to the creation of a plan.[1339]

PEROs are mandatory for all employees, or all employees within a certain objectively defined group, in companies who introduce them on a voluntary basis.[1340] A PERO can be implemented in a company by the unilateral decision of the head(s) of the company, by an agreement or collective agreement or by the ratification of a proposal by the head(s) of the company by a majority of (affected) employees.[1341]

Accumulation conditions

For PER plans, life-cycle funds are the default investment strategy.[1342] Savers in PERECOs and PEROs must be offered the option to invest in a 'solidarity fund'.[1343]

Savings in the pre-existing pension vehicles (PERCOs, PERPs, etc.) can be transferred into one of the new PER plans.[1344] Upon transfer, the tax reductions associated with the savings in the existing vehicle are retained and until 1st January 2023, the transfer of an insurance contract of more than 8 years to a PER gives the right to double the deductions related to the above-mentioned holding period of more than 8 years.[1345]

Savings are transferable between the different types of plans in the new PER (PERIs, PERECOs and PEROs). For PERIs, a transfer to another PER is possible at any point.[1346] For PERECOs, transfers to other PER plans have no limitations after leaving the employer associated with the plan, and are allowed once every three years while with that employer.[1347] For PEROs, the transfer to other PER plans is possible when membership of the plan ceases to be compulsory (e.g. upon leaving the employer associated with the plan).[1348] In every case, the transfer is free if the saver has been saving in the plan for at least five years; if the saver has been saving in the plan for less than five years at the time of the transfer, a fee of up to 1% of the value of the savings that have been accumulated in the plan can be charged.[1349]

When an individual opens a PER, they must be provided information – by their employer in the case of PERECOs and PEROs and by the provider managing body in the case of PERIs – on the features of the plan, including the management strategy and tax implications. In each subsequent year the saver must be informed of:

- how their account balance has changed;
- how their investments have performed;
- the fees charged on their account; and,

[1338] , Article L224-14 of the Monetary and Financial Code (*Code monétaire et financier*),. See also Articles L332-3 and L332-4 of the Labour Code (*Code du travail*).

[1339] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982; Article L3332-5 of the Labour Code (*Code du travail*).

[1340] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982; Article L224-24 of the Monetary and Financial Code (*Code monétaire et financier*).

[1341] Article L2246-23 of the Monetary and Financial Code (*Code monétaire et financier*) and Article 911-1 of the Social Security Code (*Social Security Code*), available at https://www.legifrance.gouv.fr/codes/id/LEGIARTI000006745463/2021-03-31/?isSuggest=true.

[1342] Crédit Agricole (2018), 'The PACTE bill explained'. Available at https://www.credit-agricole.com/en/news-channels/the-channels/newsflash/the-pacte-bill-explained.

[1343] Article L3332-15 of the Labour Code (*Code du travail*). See also Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1344] Article L224-40 of the Monetary and Financial Code (*Code monétaire et financier*); Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1345] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982; Article 72.II.1) of the Law no. 2019-486 on the growth and transformation of businesses, 2019 (*Loi relative à la croissance et la transformation des entreprises*), available at https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000038496102/.

[1346] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1347] *Ibid*; Article L224-40. III of the of the Monetary and Financial Code (*Code monétaire et financier*).

[1348] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982

[1349] *Ibid*.

- the conditions that apply to transferring their plan.[1350]

PEROs and PERECOs differ from PERIs as the latter plans operate on an individual basis, while PEROs and PERECOs are collective company-wide plans.

Decumulation conditions

Early withdrawals are allowed in the following situations:[1351]

- for the purchase of property that will be the account holder's primary residence (but this does not include any entitlements arising from compulsory contributions);
- upon the death of a spouse or PACS (a form of civil union) partner;
- upon the account holder or their child, spouse or PACS partner becoming disabled;
- where the account holder ceases being self-employed because their business underwent judicial liquidation;
- where an employee loses rights to unemployment insurance; and,
- where the account holder becomes over-indebted.[1352]

In the case of entitlements that arise by any means other than compulsory contributions, account holders can realise benefits by purchasing an annuity with all of the capital, by taking all of the capital as a lump sum or by using part of the funds to purchase an annuity and taking the remainder as a lump sum.[1353] Entitlements arising from compulsory contributions must be used to purchase a life annuity.[1354]

Performance of underlying investment vehicles

Between end-1999 and end-2018, the French equity market grew in real (and nominal) terms.[1355] During that time, the CAC-40 index (dividends reinvested) grew at an annual average rate of 2.65% while inflation during that period was 1.55% on average.[1356] However, the CAC 40 only 'overtook' inflation since 1999 in 2015.[1357]

The Barclays Pan-European Aggregate Bond Index also cumulatively outpaced inflation throughout the period between 1999 and 2018.[1358]

Solidarity clauses

None beyond the requirements that employers do not discriminate in their provision of PERECOs and PEROs.

Interactions with other pension schemes

The pension entitlements that individuals accrue through the public pension and the Agirc-Arcco scheme, along with the prevalence of saving in life insurance contracts, reduce the incentive to save in supplementary schemes including the PER. Attempts to increase saving in private supplementary schemes are partly in response to concerns about the sustainability of the current regime.

Future developments

[1350] Article L224-7 of the Monetary and Financial Code (*Code monétaire et financier*).

[1351] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982.

[1352] Article L224-4 of the Monetary and Financial Code (*Code monétaire et financier*).

[1353] Service-public.fr (2021), 'Plan d'épargne retraite (PER)'. Available at https://www.service-public.fr/particuliers/vosdroits/F34982; Article L224-5 of the Monetary and Financial Code (*Code monétaire et financier*).

[1354] Article L224-5 of the Monetary and Financial Code (*Code monétaire et financier*).

[1355] Šebo, J. and Voicu, Ş.D. eds. (2019), *Country case: France*, 'Pension Savings: The Real Return, 2019 edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-French-Country-Case.pdf.

[1356] *Ibid*.

[1357] *Ibid*.

[1358] *Ibid*.

The new PER schemes are expected to gradually replace the previous schemes (such as PERPs, PERCOs, etc.) and create a single, unified system.

12.6. Germany (Voluntary DC occupational schemes)

Basic characteristics

Type of scheme	**Mandatory access auto-enrolment**[1359]
Type of provider(s)	Insurance companies (Direktversicherung); pension funds (Pensionsfonds); pension fund societies (Pensionskasse)
Status of the scheme	Active
Year scheme became active	Legal framework for auto-enrolment codified in 2018; no auto-enrolment scheme yet in operation through this framework, although it was already practiced in some sectors and companies

Scope of the scheme

Employer size(s) covered	**All employers with relevant collective agreements in place**
Employer sector(s) covered	All industries with relevant collective agreements in place
Type of employees covered	Employees specified in the collective agreement or employees specified by the employer
Coverage for self-employed persons?	No

Overview of the German pension system

The German pension system consists of a mandatory earnings-related pay-as-you-go public pension (also referred to as 'compulsory statutory pension insurance'), occupational pensions ('occupational pension scheme') and personal voluntary pensions. Occupational pension schemes are mostly voluntary; a legal framework for auto-enrolment was introduced in 2018. The compulsory statutory pension insurance (*Gesetzliche Rentenversicherung (GRV)*) covers all German employees.[1360] Contributions are split between the employer and the employee. In addition to the earnings-related public pension, additional benefits can be claimed from social assistance if individual old-age provision is not sufficient.[1361] Moreover, in relation to self-employed persons, section 2 of the GRV lists the categories of self-employed persons who are obliged to take out statutory pension insurance.[1362]

Transition mechanisms

In 2018, the Company Pension Strengthening Act (Betriebsrentenstärkungsgesetz)[1363] was introduced, providing a framework for auto-enrolment into occupational pension schemes. The new law enables automatic enrolment of employees subject to collective agreements into a deferred

[1359] It is important to note that automatic enrolment is not a key feature of the German occupational pension system. While automatic enrolment is possible, occupational pension schemes are generally either compulsory systems set by employers and social partners or voluntary systems requiring an opt-in by employees often triggered by financial incentives.

[1360] Social Code Book Six (VI) – Statutory Pension Insurance (*Sozialgesetzbuch (SGB) Sechstes Buch (VI) - Gesetzliche Rentenversicherung (GRV)*), available at: https://www.gesetze-im-internet.de/sgb_6/index.html#BJNR122610989BJNE015309301.

[1361] *Ibid.*

[1362] Section 2 Social Code Book Six (VI) – Statutory Pension Insurance (*Sozialgesetzbuch (SGB) Sechstes Buch (VI) - Gesetzliche Rentenversicherung (GRV)*).

[1363] Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*), available at: https://www.buzer.de/s1.htm?g=Betriebsrentenst%C3%A4rkungsgesetz&f=1.

compensation plan.[1364] Under deferred compensation, a portion of an employee's gross salary is retained and contributed to the company pension plan.[1365; 1366] The first automatic enrolment scheme was due to become active in July 2021[1367] but this was delayed and is still awaiting approval from BaFin, the Competent Authority.[1368] Initially, the scheme will have 11,000 members and the plan provider will be an insurance group.

Collective agreements are generally established at industry level by employers' organisations and trade unions.[1369] Collective bargaining agreements may set out the obligatory participation of all or certain groups of employees.[1370] Employers and employees not bound by collective agreements may also establish an auto-enrolment deferred compensation plan.[1371; 1372]

Employers automatically enrolling employees must:

- Outline to offer in text form, at least three months before the first due date of the remuneration to be deferred;
- Clearly outline the amount of remuneration to be deferred;
- State that the employee may object without giving a reason within at least one month after the receipt of the offer.[1373; 1374]

Collective bargaining agreements with unions take priority over most statutory provisions on deferred compensation.[1375] For example, a collective bargaining agreement can change the amount of the employer-paid top-up (even to the employees' detriment) or waive the employer-paid top-up entirely.[1376]

Coverage rates associated with the scheme

Overall

1364 Section 20, of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*), available at: https://www.gesetze-im-internet.de/betravg/__20.html.

1365 Kruse, D., 2021. New legislation on business pension schemes in Germany. [online] Bird & Bird. Available at: <https://www.twobirds.com/en/news/articles/2018/germany/new-legislation-in-business-pension-schemes-in-germany> [Accessed 26 February 2021].

1366 Section 1 of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

1367 Talanx (2021), 'Breakthrough in occupational retirement provision: "Die Deutsche Betriebsrente" launches first social partner model in Germany together with ver.di'. Available at https://www.talanx.com/en/newsroom/press_articles/deutsche_betriebsrente_launches_germanys_first_social_partner_model_with_ver-di.

1368 Volz, M. (2021), 'Außer Spesen nichts gewesen? Talanx muss Start der Betriebsrente verschieben', *Versicherungswirtschaft-heute*, 2nd July 2021. Available at https://versicherungswirtschaft-heute.de/schlaglicht/2021-07-02/ausser-spesen-nichts-gewesen-talanx-muss-start-der-betriebsrente-verschieben/.

1369 Worker-participation.eu. 2019. Collective Bargaining / Germany / Countries / National Industrial Relations / Home - WORKER PARTICIPATION.eu. [online] Available at: <https://www.worker-participation.eu/National-Industrial-Relations/Countries/Germany/Collective-Bargaining> [Accessed 26 February 2021].

1370 Kruse, D., 2021. New legislation on business pension schemes in Germany. [online] Bird & Bird. Available at: <https://www.twobirds.com/en/news/articles/2018/germany/new-legislation-in-business-pension-schemes-in-germany> [Accessed 26 February 2021].

1371 Section 20, of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

1372 Dip21.bundestag.de. 2018. Entwurf eines Gesetzes zur Stärkung der betrieblichen Altersversorgung und zur Änderung anderer Gesetze (Betriebsrentenstärkungsgesetz). [online] Available at: <http://dip21.bundestag.de/dip21/btd/18/112/1811286.pdf> [Accessed 26 February 2021].

1373 Section 20 of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

1374 Dip21.bundestag.de. 2018. Entwurf eines Gesetzes zur Stärkung der betrieblichen Altersversorgung und zur Änderung anderer Gesetze (Betriebsrentenstärkungsgesetz). [online] Available at: <http://dip21.bundestag.de/dip21/btd/18/112/1811286.pdf> [Accessed 26 February 2021].

1375 Sections 1a and 20 of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*); also see Table 1 in Ellguth, P and Kohaut, S, 2019, 'Tarifbindung und betriebliche Interessenvertretung: Ergebnisse aus dem IAB-Betriebspanel 2018', available at: https://ideas.repec.org/a/nms/wsimit/10.5771-0342-300x-2019-4-290.html.

1376 Brems, M. and Maurer, F., 2019. Changes to Deferred Compensation in Germany. [online] Cleary M&A and Corporate Governance Watch. Available at: <https://www.clearymawatch.com/2019/06/changes-to-deferred-compensation-in-germany/> [Accessed 26 February 2021].

According to EIOPA, the total number of members in German occupational pension plans was 10,920,000 in 2019.[1377]

Eligible employees

Collective bargaining agreements may set out the obligatory participation of all or certain groups of employees.[1378] Employers and employees not bound by collective agreements may establish an auto-enrolment deferred compensation plan.[1379; 1380]

Contribution rates of the scheme

Minimum contributions levels for employers and employees participating in automatic enrolment pensions are determined by the collective agreements.[1381; 1382] A collective agreement can change the amount of the employer paid top-up or waive it entirely.[1383]

Employees can request for deferred compensation of up to 4% of the social security contribution threshold;[1384; 1385] as of 2021, this is €3,408 per year in west Germany and €3,216 per year in east Germany.[1386] On January 1st 2018, the combined employer and employee limit for tax-free contributions to a direct insurance arrangement, a pension fund society, or a pension fund increased from 4% to 8% of the social security contribution ceiling.[1387; 1388]

The Company Pension Strengthening Act introduced a statutory employer top-up payment of 15% of the deferred remuneration or the saving of social security contributions for all new plans, which will be extended to older contracts in 2022;[1389] this is equal to the amount the employer saves in social security contributions due to the employee's participation in a deferred compensation pension plan.[1390] Direktzusage and Unterstützungskasse are exempt from this top-up payment.[1391]

Providers

[1377] Eiopa - European Commission. 2021. Occupational pensions statistics - Eiopa European Commission. [online] Available at: <https://www.eiopa.europa.eu/tools-and-data/occupational-pensions-statistics_en> [Accessed 26 February 2021].

[1378] Kruse, D., 2021. New legislation on business pension schemes in Germany. [online] Bird & Bird. Available at: <https://www.twobirds.com/en/news/articles/2018/germany/new-legislation-in-business-pension-schemes-in-germany> [Accessed 26 February 2021].

[1379] Section 20 of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

[1380] Dip21.bundestag.de. 2018. Entwurf eines Gesetzes zur Stärkung der betrieblichen Altersversorgung und zur Änderung anderer Gesetze (Betriebsrentenstärkungsgesetz). [online] Available at: <http://dip21.bundestag.de/dip21/btd/18/112/1811286.pdf> [Accessed 26 February 2021].

[1381] Section 20 of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

[1382] Beck, D. and Heikki Eisenlohr, D., 2020. Regulation of state and supplementary pension schemes in Germany: overview. [online] Uk.practicallaw.thomsonreuters.com. Available at: <https://uk.practicallaw.thomsonreuters.com/0-594-6625?transitionType=Default&contextData=(sc.Default)&firstPage=true#co_anchor_a469607> [Accessed 26 February 2021].

[1383] Brems, M. and Maurer, F., 2019. Changes to Deferred Compensation in Germany. [online] Cleary M&A and Corporate Governance Watch. Available at: <https://www.clearymawatch.com/2019/06/changes-to-deferred-compensation-in-germany/> [Accessed 26 February 2021].

[1384] Section 1a of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

[1385] Oecd.org. 2008. Pension Country Profile: Germany. [online] Available at: <https://www.oecd.org/finance/private-pensions/42565755.pdf> [Accessed 26 February 2021].

[1386] Krankenkassen.de. 2021. Beitragsbemessungsgrenzen und Rechengrößen - Sozialversicherung 2020. [online] Available at: <https://www.krankenkassen.de/gesetzliche-krankenkassen/system-gesetzliche-krankenversicherung/sozialversicherung-rechengroessen-beitragsbemessungsgrenze-versicherungspflichtgrenze/rechengroessen-2020/> [Accessed 26 February 2021].

[1387] Section 3(63) of the Income Tax Act (*Einkommensteuergesetz (EStG)*), available at: https://www.gesetze-im-internet.de/estg/BJNR010050934.html#BJNR010050934BJNG000408140.

[1388] Hoganlovells.com. 2019. Workplace pensions in Germany: what you need to know. [online] Available at: <https://www.hoganlovells.com/~/media/hogan-lovells/pdf/2019/2019_08_14_german_pension_schemes__client_note.pdf?la=en> [Accessed 26 February 2021].

[1389] Section 23 of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

[1390] Brems, M. and Maurer, F., 2019. Changes to Deferred Compensation in Germany. [online] Cleary M&A and Corporate Governance Watch. Available at: <https://www.clearymawatch.com/2019/06/changes-to-deferred-compensation-in-germany/> [Accessed 26 February 2021].

[1391] Euracs.eu. 2021. Germany Pension Summary. [online] Available at: <https://euracs.eu/summaries/summary-germany/> [Accessed 26 February 2021].

Occupational pension plans can be organised in several different ways, although book reserves and support funds cannot be used as vehicles for the DC occupational plans for which auto-enrolment may be implemented and different tax laws apply to them:

- Book reserves (Direktzusage) – companies pay the pension distributions from the company's assets as the pension obligation falls due. This is the most common form of workplace pension in Germany. Employers may establish a pension trust company, removing the pension obligation from their balance sheet and outsourcing the pension obligations to the trustee under a contractual trust arrangement (CTA). The employer remains liable for any shortfall in pension benefits. Funds in a CTA are not subject to investment restrictions, meaning that higher equity-based investment returns may be targeted.[1392] Employee contributions are possible only as deferred compensation. Employees and surviving dependants have a legal claim to promised benefits.[1393]
- Support funds (Unterstützungskasse) – an Unterstützungskasse is a legally independent institution which offers occupational retirement provision to help employers meet their pension obligations.[1394] The onus to pay benefits to employees remains with the employers. The Unterstützungskasse is not subject to insurance supervision and employees do not receive a statutory benefit claim against the Unterstützungskasse however, employees do have a claim against the employer. Employee contributions are possible only via deferred compensation.[1395] An Unterstützungskasse may dispose freely of the accumulated capital, loaning it, for instance, to an employer. The threshold for tax free contributions is higher under a support fund, as such, they are often used to provide pensions for executives, managers or directors but can be used for the entire workforce. Employee contributions can only be made through salary sacrifice and the employer remains ultimately liable for paying benefits if the support fund is insufficiently funded. Whilst a fund's investment must not breach its articles of association, no specific investment restrictions apply.
- Direct insurance (Direktversicherung) – a life insurance policy whereby an employer takes out an individual policy out on behalf of each of their employees. Employees may contribute to the plan through deferred compensation or after-tax income. After tax contributions are only subject to tax on interest.
- Pension fund society (Pensionskasse) – Pension institutions which supply occupational retirement provisions to one or more employers. Employees can contribute to their pension through deferred compensation or after-tax contributions.
- Pension funds (Pensionsfonds)[1396] – These pension funds were created in 2002 with the intention of combining the security of a Pensionskasse with the yields of an investment fund. Pensionsfonds have more liberal investment conditions in comparison to Pensionskasse but must purchase insurance cover against insolvency. Employees can contribute to their pension through deferred compensation or after-tax contributions. Pension funds are not required to provide guarantees on pensions in payment, provided that the employer agrees to pay future contributions to offset any underfunding.

Tax and financial incentives

In general, pension plans are treated according to the EET (exempt, exempt, taxed) model whereby contributions and investment returns are tax-exempt, but benefits are subject to income

[1392] Hoganlovells.com. 2019. Workplace pensions in Germany: what you need to know. [online] Available at: <https://www.hoganlovells.com/~/media/hogan-lovells/pdf/2019/2019_08_14_german_pension_schemes__client_note.pdf?la=en> [Accessed 26 February 2021].

[1393] Euracs.eu. 2021. Germany Pension Summary. [online] Available at: <https://euracs.eu/summaries/summary-germany/> [Accessed 26 February 2021].

[1394] Section 1b of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

[1395] Euracs.eu. 2021. Germany Pension Summary. [online] Available at: <https://euracs.eu/summaries/summary-germany/> [Accessed 26 February 2021].

[1396] Article 1(1) of the Law for the Improvement of Company Pensions Plans, 2017, (Betriebsrentenstärkungsgesetz).

tax. In the case of book reserves, employers and employees can make unlimited contributions to a direct pension promise, contributions are tax deductible against the employers' taxable profits.[1397]

Employee and employer contributions are tax exempt up to 8% of the social security contribution ceiling[1398]; however, a lifelong income at the decumulation stage is required to attract this tax relief.

For employees that have a break in employment such as a secondment, leave or a sabbatical, tax-free contributions up to 8% of the social security contribution ceiling can be paid in the years where the employee-employer relationship was suspended. The additional contributions are limited to maximum of 10 calendar years.[1399; 1400]

Employers are incentivised to contribute to the pension of low-income workers[1401] through additional tax subsidies. Employers who contribute at least €240 per year to a pension fund, pensionskasse or direct insurance are given a tax subsidy of 30% of the contribution.[1402] The tax subsidy is capped to a maximum value of €288 per year (an employer contribution of €960)[1403; 1404]. Employees are incentivised to defer compensation into a pension plan as taxes and social security contributions are reduced according to the amount of deferred compensation, but deferring contribution reduces pension entitlements by reducing the contribution base.[1405]

Further incentives for participation in occupational pensions were introduced in 2019. The Act on a Statutory Health Insurance Contributions Allowance for Occupational Pensions (GKV-Betriebsrentenfreibetragsgesetz)[1406] introduced allowances for statutory health insurance contributions for those who receive occupational pensions.[1407]

Opt-out conditions

Employees can opt-out without giving a reason within at least one month after the receipt of the notification of automatic enrolment.[1408]

Accumulation conditions

Time commitment

[1397] Hoganlovells.com. 2019. Workplace pensions in Germany: what you need to know. [online] Available at: <https://www.hoganlovells.com/~/media/hogan-lovells/pdf/2019/2019_08_14_german_pension_schemes__client_note.pdf?la=en> [Accessed 26 February 2021].

[1398] Hoganlovells.com. 2019. Workplace pensions in Germany: what you need to know. [online] Available at: <https://www.hoganlovells.com/~/media/hogan-lovells/pdf/2019/2019_08_14_german_pension_schemes__client_note.pdf?la=en> [Accessed 26 February 2021].

[1399] Section 3(63) of the Income Tax Act (*Einkommensteuergesetz (EStG)*),

[1400] Hoganlovells.com. 2019. Workplace pensions in Germany: what you need to know. [online] Available at: <https://www.hoganlovells.com/~/media/hogan-lovells/pdf/2019/2019_08_14_german_pension_schemes__client_note.pdf?la=en> [Accessed 26 February 2021].

[1401] Low-income workers are those with gross monthly salary of up to €2,575

[1402] Section 100 of the Income Tax Act (*Einkommensteuergesetz (EStG)*),

[1403] mercer.com. 2020. *Germany enacts basic pension law to benefit low-wage earners*. [online] Available at: <https://www.mercer.com/our-thinking/law-and-policy-group/germany-enacts-basic-pension-law-to-benefit-low-wage-earners.html> [Accessed 13 May 2021].

[1404] Section 19 of the Income Tax Act (*Einkommensteuergesetz (EStG)*),

[1405] Brems, M. and Maurer, F., 2019. Changes to Deferred Compensation in Germany. [online] Cleary M&A and Corporate Governance Watch. Available at: <https://www.clearymawatch.com/2019/06/changes-to-deferred-compensation-in-germany/> [Accessed 26 February 2021].

[1406] Act on a Statutory Health Insurance Contributions Allowance for Occupational Pensions (*GKV-Betriebsrentenfreibetragsgesetz*), available at: https://www.buzer.de/s1.htm?g=GKV%E2%80%93BRG&f=1.

[1407] Bundesfinanzministerium.de. 2020. Report on the Sustainability of Public Finances. [online] Available at: <https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Press_Room/Publications/Brochures/2020-06-25-Sustainability-Report-2020.pdf?__blob=publicationFile&v=5> [Accessed 26 February 2021].

[1408] Section 20, of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

The retirement age largely depends on the rules set out in plans.[1409] The only legally binding age restriction relates to the vesting of pension entitlements, which requires a minimum age of 21 (25 before 2018).[1410; 1411]

Some pension plans may include early retirement clauses or disability payments, although it is entirely voluntary. Additionally, dependents of deceased members will only receive benefits upon the member's death if it is specified in their pension plan.[1412; 1413]

Employees can transfer their pension if they are moving to a new employer.[1414] The pension entitlement is transferred to the new employer under a mutual agreement between the two employers and the employee. The new employer then continues the pension commitment without any changes. Alternatively, the value of the vested pension entitlement can be transferred to the new employer who then must provide a new equivalent pension commitment.[1415] The former employer is then released from the pension obligation.[1416] In the case of pure defined contribution plan, pension entitlements can be transferred to a plan which also provides pure defined contribution benefits. While pension entitlements can be transferred from a traditional plan to a defined contribution plan, the reverse is not true.

Investment strategy

Pensionskassen and Pensionsfonds must comply with investment regulations, however the investment rules governing Pensionskassen are relatively stricter than those governing Pensionsfonds[1417]. Pensionskassen are limited to a 1% equity investment from a single issuer. Additionally, the total exposure for a Pensionskassen is set to 35% for listed equity and 15% for unlisted equity. While Pensionsfonds are not subject to an equity investment ceiling, they are limited to a 5% equity investment from a single issuer. Prior to 2002, both Pensionskassen and Pensionsfonds were limited to 30% and 10% exposure to listed and unlisted equity, respectively.[1418]

As of 2019, over 50% of occupational pension fund assets were invested in UCITS. Debt and fixed income securities accounted for 37% of fund assets and Equity and other variable-yield securities (excluding UCITS) accounted for just 2%. Total assets increased by 6% between 2018 and 2019 to €258,961,649,676.70.[1419]

Decumulation conditions

[1409] Oecd.org. 2008. Pension Country Profile: Germany. [online] Available at: <https://www.oecd.org/finance/private-pensions/42565755.pdf> [Accessed 26 February 2021].

[1410] Section 1b of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

[1411] Beck, D. and Heikki Eisenlohr, D., 2020. Regulation of state and supplementary pension schemes in Germany: overview. [online] Uk.practicallaw.thomsonreuters.com. Available at: <https://uk.practicallaw.thomsonreuters.com/0-594-6625?transitionType=Default&contextData=(sc.Default)&firstPage=true#co_anchor_a469607> [Accessed 26 February 2021].

[1412] Section 1b of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

[1413] Beck, D. and Heikki Eisenlohr, D., 2020. Regulation of state and supplementary pension schemes in Germany: overview. [online] Uk.practicallaw.thomsonreuters.com. Available at: <https://uk.practicallaw.thomsonreuters.com/0-594-6625?transitionType=Default&contextData=(sc.Default)&firstPage=true#co_anchor_a469607> [Accessed 26 February 2021].

[1414] Section 4 of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

[1415] Section 4(2) of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

[1416] Beck, D. and Heikki Eisenlohr, D., 2020. Regulation of state and supplementary pension schemes in Germany: overview. [online] Uk.practicallaw.thomsonreuters.com. Available at: <https://uk.practicallaw.thomsonreuters.com/0-594-6625?transitionType=Default&contextData=(sc.Default)&firstPage=true#co_anchor_a469607> [Accessed 26 February 2021].

[1417] Oecd.org. 2021. ANNUAL SURVEY OF INVESTMENT REGULATION OF PENSION FUNDS AND OTHER PENSION PROVIDERS. [online] Available at: <https://www.oecd.org/daf/fin/private-pensions/2020-Survey-Investment-Regulation-Pension-Funds-and-Other-Pension-Providers.pdf> [Accessed 11 June 2021].

[1418] Ec.europa.eu. 2019. Germany: Key characteristics of the pension funds market. [online] Available at: <https://ec.europa.eu/finance/docs/policy/191216-insurers-pension-funds-investments-in-equity/pension-funds/factsheet-germany_en.pdf> [Accessed 26 February 2021].

[1419] Eiopa - European Commission. 2021. Occupational pensions statistics - Eiopa European Commission. [online] Available at: <https://www.eiopa.europa.eu/tools-and-data/occupational-pensions-statistics_en> [Accessed 26 February 2021].

In general, benefits are taken as an annuity; however, benefits can be taken as a lump sum payment or a payment in several instalments. Funds taken out as a lump sum are taxed at the time of payment.[1420]

Employers are permitted to pay out a lump sum without the employee's consent for small pots; this is permitted for pots whose benefits are expected to be less than €32.90 in the West and €31.15 in the East.[1421] Employees are allowed to transfer their pots with them upon a change of employer, allowing them to avoid accumulating such small pots.

Performance of underlying investment vehicles

The first DC scheme with AE has not yet become active.

Solidarity clauses

The new defined contribution plans include an optional buffer stock created by not allocating all contributions and associated returns to individual employees.[1422] Such a buffer stock could be used for risk pooling, for instance.

Interactions with other pension schemes

As pension benefits are calculated on the number of contribution years and the level of relevant average earnings, pension benefits from an occupational pension scheme do not directly affect the benefits received from statutory pension insurance (there are, however, indirect effects of deferred compensation: it lowers the contribution base, leading to lower entitlements; and pension benefits are adjusted according to growth in wages that are subject to social security contributions, and an increase in the share of compensation that is deferred).[1423] Income from an occupational pension will reduce any social assistance for low-income pensioners but there are allowances provided. Similarly, benefits from occupational pension schemes will not affect benefits received from personal pension schemes, however as all income is taxed individuals may be pushed into a higher tax bracket upon retirement due to pension benefits.

Future developments

The Occupational Pensions Strengthening Act introduced a lot of changes into the German occupational pension system. One of the key changes is the ability for employers to now offer pure defined contribution (DC) schemes with mandatory employer contributions, reducing the contingent liability caused by funded pensions. Pure DC plans can be introduced by a collective agreement, a reference in a works council agreement or service agreement to a corresponding collective agreement. Pure DC plans may use direct insurance, a pension fund society or a pension fund as the funding vehicle. The use of DC plans may increase in the future.

The Occupational Pensions Strengthening Act introduced mandatory contributions from employers where the employee is sacrificing salary into a direct insurance arrangement, pension fund society or pension fund and the employee's salary sacrifice results in the employer paying lower social security contributions.

In terms of the state pension, the German statutory retirement age is steadily increasing to 67 by 2029. The aggregate rate of contributions to the state pension, paid for by employers and

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[1420] Beck, D. and Heikki Eisenlohr, D., 2020. Regulation of state and supplementary pension schemes in Germany: overview. [online] Uk.practicallaw.thomsonreuters.com. Available at: <https://uk.practicallaw.thomsonreuters.com/0-594-6625?transitionType=Default&contextData=(sc.Default)&firstPage=true#co_anchor_a469607> [Accessed 26 February 2021].

[1421] Section 3 of the Law for the Improvement of Company Pensions Plans, 2017, (*Betriebsrentenstärkungsgesetz*).

[1422] BaFin (2017), 'Occupational pensions - Act on the pure defined-contribution scheme passed'. Available at https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2017/fa_bj_1707_Betriebsrenten_en.html.

[1423] Iopsweb.org. 2019. IOPS COUNTRY PROFILE: GERMANY. [online] Available at: <http://www.iopsweb.org/resources/42368824.pdf> [Accessed 26 February 2021].

employees, is currently 18.6% of an employee’s gross salary, up to a ceiling, and is expected to increase to 20% by 2025.[1424]

[1424] Hoganlovells.com. 2019. Workplace pensions in Germany: what you need to know. [online] Available at: <https://www.hoganlovells.com/~/media/hogan-lovells/pdf/2019/2019_08_14_german_pension_schemes__client_note.pdf?la=en> [Accessed 26 February 2021].

12.7. Hungary (Voluntary - formerly mandatory - scheme)

Basic characteristics

Type of scheme	**Voluntary**
Type of provider(s)	Independent private pension funds
Status of the scheme	Active
Year scheme became active	2010

Scope of the scheme

Employer size(s) covered	**All**
Employer sector(s) covered	All
Type of employees covered	All
Coverage for self-employed persons?	All

Overview of the Hungarian pension system

Hungary's pension system consists of the public pension and several types of voluntary occupational and personal plans.[1425] Amongst the voluntary personal plans are a scheme that was previously mandatory before being made voluntary in 2010.

The earnings-related public pension system is a mandatory defined benefit system. The amount of pension a retiree will receive depends on the number of contributions and their average wage. Generally, income subject to pension contributions from 1 January 1988 are used to calculate the average wage. Benefits are accrued in the following manner:

- 33% of average earnings for the first ten years of coverage;
- An additional 2% per annum from years 11 to 25;
- An additional 1% per annum from years 26 to 36;
- An additional 1.5% per annum from years 37 to 40;
- An additional 2% per annum from years 41+;

Pensioners with a minimum of 20 years of service are entitled to a minimum State pension of HUF 28 500 per month. The amount has remained unchanged since 2008. If the average wage on which contributions are calculated is less than the amount of the minimum pension, the pension will equal 100% of the average monthly wage[1426].

[1425] See, e.g., European Trade Union Institute (ETUI) (2019), 'Pensions reforms in Hungary - background summary (updated March 2019)'. Available at https://www.etui.org/covid-social-impact/hungary/pensions-reforms-in-hungary-background-summary-updated-march-2019.

[1426] Ec.europa.eu. 2021. *Hungary - Employment, Social Affairs & Inclusion - European Commission*. [online] Available at: <https://ec.europa.eu/social/main.jsp?catId=1113&intPageId=4581&langId=en#:~:text=The%20Hungarian%20pension%20system%20provides,of%20the%20average%20monthly%20wage.> [Accessed 13 May 2021].

Pension benefits are adjusted to changes in consumer price index and pension income is exempt from tax[1427].

The voluntary scheme discussed in this fiche supplements the earnings-related public pension. There also exist voluntary personal pension plans.

Transition mechanisms

Prior to 2010, the Hungarian pension system consisted of a public pension, a mandatory personal scheme and voluntary personal schemes.[1428] Introduced in 1998, mandatory private pensions were defined contribution in nature and took the form of mutual savings associations.[1429] At the end of 2010, over 70% of the labour force were members of the mandatory private pension scheme or mixed pension system.[1430]

In 2010, Hungary enacted a pension reform whereby contributions to the mandatory funded defined-contribution scheme were appropriated by the government. Members of the defined-contribution scheme had to decide by 31 January 2011 whether they wanted to keep their private pension account.[1431] If individuals wanted to keep their account, they would have to forfeit all of their public pension rights based on future contributions, leaving individuals worse off relative to those receiving the public pension unless the private fund delivered high returns. Around 102,000 people chose to keep their private pension account.[1432] [1433]

Upon retirement, the assets in the defined-contribution private pension scheme must be converted into an annuity. According to the current legislation, the annuity must provide at least the same indexation of the pension in payment as the public pension scheme. Unisex life tables must be used to calculate annuity rates.[1434]

After 3rd November 2010, the mandatory pension system became voluntary.[1435]

Coverage rates associated with the scheme

Overall

[1427] Ec.europa.eu. 2021. *Hungary - Employment, Social Affairs & Inclusion - European Commission*. [online] Available at: <https://ec.europa.eu/social/main.jsp?catId=1113&intPageId=4581&langId=en#:~:text=The%20Hungarian%20pension%20system%20provides,of%20the%20average%20monthly%20wage.> [Accessed 13 May 2021].

[1428] OECD (2008), 'Pension Country Profile: Hungary', *OECD Private Pensions Outlook 2008*. Available at https://www.oecd.org/finance/private-pensions/42566048.pdf; Financial Times. n.d. [online] Available at: <https://www.ft.com/content/0e01c370-06de-11e0-8c29-00144feabdc0;> [Accessed 14 May 2021]; See also Act LXXXII on Private Pensions and Private Pension Funds, 1997 (évi LXXXII. törvény a magánnyugdíjról és a magánnyugdíjpénztárakról), available at https://njt.hu/jogszabaly/1997-82-00-00.77.

[1429] OECD (2008), 'Pension Country Profile: Hungary', *OECD Private Pensions Outlook 2008*. Available at https://www.oecd.org/finance/private-pensions/42566048.pdf; See also: Act LXXXII on Private Pensions and Private Pension Funds, 1997.

[1430] Oecd.org. 2013. *PENSIONS AT A GLANCE 2013: COUNTRY PROFILES – HUNGARY*. [online] Available at: <http://www.oecd.org/els/public-pensions/PAG2013-profile-Hungary.pdf> [Accessed 14 May 2021].

[1431] Act CLXVII. on the Abolition of Early Retirement Pensions, Early Retirement Benefits and Remuneration, 2011 (évi CLXVII. törvény a korhatár előtti öregségi nyugdíjak megszüntetéséről, a korhatár előtti ellátásról és a szolgálati járandóságról), available at https://njt.hu/jogszabaly/2011-167-00-00.

[1432] Whitehouse, E., n.d. Reversals of systemic pension reforms in Central and Eastern Europe: Implications.

[1433] Oecd.org. 2013. *PENSIONS AT A GLANCE 2013: COUNTRY PROFILES – HUNGARY*. [online] Available at: <http://www.oecd.org/els/public-pensions/PAG2013-profile-Hungary.pdf> [Accessed 14 May 2021].

[1434] Oecd.org. 2013. *PENSIONS AT A GLANCE 2013: COUNTRY PROFILES – HUNGARY*. [online] Available at: <http://www.oecd.org/els/public-pensions/PAG2013-profile-Hungary.pdf> [Accessed 14 May 2021]; See also Section 4 of the Act LXXXII on the justification of the Act on Private Pensions and Private Pension Funds (*évi LXXXII. törvény indokolása a magánnyugdíjról és a magánnyugdíjpénztárakról*), available at https://njt.hu/jogszabaly/1997-82-K0-00.

[1435] https://ec.europa.eu/employment_social/empl_portal/SSRinEU/Your%20social%20security%20rights%20in%20Hungary_en.pdf.

Prior to 2011, all workers under the age of 35 had to join the mandatory pension system.[1436] At the end of 2010, over 70% of the labour force were members of the mandatory private pension scheme or mixed pension system.[1437]

Under the new system, voluntary pension fund membership consists of about 26.4% of the labour force (2019).[1438]

Eligible employees

Any individual may contribute to voluntary pension funds, even during the pay-out period.[1439]

Contribution rates of the scheme

Prior to 2011, the contribution rate to the mixed pension system was 26.5% of the employee's taxable income, of which the employer pays 18% and the employee 8.5%. All employer contributions were allocated to the state pension scheme, while 0.5% of employees' contributions go to the state scheme and 8% to their individual account.[1440]

Voluntary contributions were limited to a ceiling of 2%, which could be shared by employer and employee. Supplementary voluntary contributions to mandatory pension funds were allowed and could be paid by the employer and/or employee.[1441]

Under the voluntary system, contribution levels are set by fund rules and can be paid by employees, employers, or both.[1442] Contributions are paid from net wages, and in 2018 the average contribution was 3.85% of net average earnings, of which two-thirds were paid by members.[1443]

Providers

Prior to 2011, workers could select a mandatory pension fund (open or closed), which may have a contract with a pension administrator. In 2007, there were 20 mandatory pension funds operating with membership of 2.7 million and total assets estimated at HUF 1,979.4 billion (USD 11.5 billion). The five largest mandatory pension funds were subsidiaries of financial groups, e.g., banks, specialized credit institutions and insurance companies and managed 80% of total assets.[1444]

The voluntary funds are fully funded and run by several authorised and independent private pension funds which are supervised by The Central Bank of Hungary (Magyar Nemzeti Bank).[1445]

Tax and financial incentives

[1436] Oecd.org. 2009. *Pension Country Profile: Hungary*. [online] Available at: <https://www.oecd.org/finance/private-pensions/42566048.pdf> [Accessed 14 May 2021].

[1437] Oecd.org. 2013. *PENSIONS AT A GLANCE 2013: COUNTRY PROFILES – HUNGARY*. [online] Available at: <http://www.oecd.org/els/public-pensions/PAG2013-profile-Hungary.pdf> [Accessed 14 May 2021].

[1438] Iopsweb.org. 2019. *IOPS COUNTRY PROFILE: HUNGARY*. [online] Available at: <http://www.iopsweb.org/resources/38669447.pdf> [Accessed 13 May 2021].

[1439] Iopsweb.org. 2019. *IOPS COUNTRY PROFILE: HUNGARY*. [online] Available at: <http://www.iopsweb.org/resources/38669447.pdf> [Accessed 13 May 2021].

[1440] Pension Country Profile: Hungary, OECD Private Pensions Outlook 2008. Available at: https://www.oecd.org/finance/private-pensions/42566048.pdf.

[1441] Ibid.

[1442] Chapter 1, Section 1 §1(5) of the Act CXXII on Social Security Benefits Eligibility for these benefits and coverage(*évi CXXII. törvény a társadalombiztosítás ellátásaira jogosultakról, valamint ezen ellátások fedezetéről*), available at https://njt.hu/jogszabaly/2019-122-00-00.

[1443] Iopsweb.org. 2019. *IOPS COUNTRY PROFILE: HUNGARY*. [online] Available at: <http://www.iopsweb.org/resources/38669447.pdf> [Accessed 13 May 2021].

[1444] Pension Country Profile: Hungary, OECD Private Pensions Outlook 2008. Available at: https://www.oecd.org/finance/private-pensions/42566048.pdf.

[1445] Ec.europa.eu. 2013. Your social security rights in Hungary. [online] Available at: <https://ec.europa.eu/employment_social/empl_portal/SSRinEU/Your%20social%20security%20rights%20in%20Hungary_en.pdf> [Accessed 14 May 2021]; See also Chapter 1, Section 2 § 4(5) of the Act CXXXIX on the Magyar Nemzeti Bank, 2013 (*évi CXXXIX. Törvény a Magyar Nemzeti Bankról*), available at https://njt.hu/jogszabaly/2013-139-00-00.

Prior to 2011, employer contributions, investment income, and benefits from the mandatory scheme were tax-exempt. Until 2004, employees could deduct 25% of their contributions to the state-funded pension scheme from their income tax base.[1446]

Hungary operates a TEE regime under the mixed pension system. Both employer and employee voluntary pension fund contributions are taxable however, employees do receive tax credits. Investment income and benefits are exempt from taxation.[1447]

Under the mixed pension system, employees could receive tax credits of 20% on their contribution until 2019. Since 2019, employees receive tax credits on total contributions, that is the total of their personal contributions and their employers' contributions. The tax credit on contributions is limited to a maximum of HUF 150,000 per annum. Total contributions are taxable, but investment income is tax-exempt. Returns on pension assets may be withdrawn tax-free after 10 years of membership, while, in each of the following years, 10% of the contributed capital can be cashed-in free of tax. After 20 years of membership, savers may withdraw benefits all exempt from taxation. [1448]

There are no restrictions on the number of times an individual may switch funds (institutions), however, under legislation, switching fees may not exceed HUF 3,000. Voluntary pension funds are not obligated to yield a minimum rate of return. Individuals also have the option to purchase a life insurance with a pension savings component. [1449]

Opt-out conditions

None.

Accumulation conditions

Time commitment

Prior to 2011, twenty years of service was required for a full pension at the ordinary retirement age. However, many Hungarians, especially men, chose to retire early and accept a corresponding decrease in pension benefits.[1450]

Under the mixed-system, beneficiaries may have access to their individual retirement account at the end of a waiting period (minimum 10 years).[1451]

Investment strategy

Under the mixed pension system, a life-cycle portfolio was introduced for mandatory individual accounts in 2007. This life-cycle portfolio system offered three different portfolios; conservative, balanced and growth.[1452]

Decumulation conditions

Prior to 2011, individual accounts were defined contribution and benefits were paid as annuities.[1453]

1446 Oecd.org. 2009. *Pension Country Profile: Hungary*. [online] Available at: <https://www.oecd.org/finance/private-pensions/42566048.pdf> [Accessed 14 May 2021].

1447 Ww1.issa.int. n.d. *Complementary pensions (Voluntary) | International Social Security Association (ISSA)*. [online] Available at: <https://ww1.issa.int/node/195546?country=875> [Accessed 14 May 2021]..

1448 IOPS COUNTRY PROFILE: HUNGARY, September 2019, pg. 2. Available at: http://www.iopsweb.org/resources/38669447.pdf.

1449 IOPS COUNTRY PROFILE: HUNGARY, September 2019, pg. 3. Available at: http://www.iopsweb.org/resources/38669447.pdf.

1450 Oecd.org. 2009. *Pension Country Profile: Hungary*. [online] Available at: <https://www.oecd.org/finance/private-pensions/42566048.pdf> [Accessed 14 May 2021].

1451 https://ww1.issa.int/node/195546?country=875. See also Chapter 1, Section 2 § 4.c and §5.a of the Act XCVI on Voluntary Mutual Fund, 1993 (*évi XCVI. törvényaz Önkéntes Kölcsönös Biztosító Pénztárakról*), available at https://njt.hu/jogszabaly/1993-96-00-00.

1452 Oecd.org. 2009. Pension Country Profile: Hungary. [online] Available at: <https://www.oecd.org/finance/private-pensions/42566048.pdf> [Accessed 14 May 2021];. See also ARC Chapter §49/B of the Act XCVI on Voluntary Mutual Fund, 1993 (*évi XCVI. törvényaz Önkéntes Kölcsönös Biztosító Pénztárakról*).

1453 Oecd.org. 2009. *Pension Country Profile: Hungary*. [online] Available at: <https://www.oecd.org/finance/private-pensions/42566048.pdf> [Accessed 14 May 2021].

Savers can access their benefits uponreaching the retirement age,[1454] which is planned to increase to 65 by 2022.[1455] Benefits can be taken in the form of a lump sum or annuity, or a combination of the two.[1456] It is expected that the voluntary pension will account for 8-10% of pension earnings.[1457]

Performance of underlying investment vehicles

Table 22 Annual nominal investment rates of return of private pension funds

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
19.1%	9.0%	..	13.2%	7.4%	8.6%	4.6%	6.6%	6.9%	-1.7%	9.4%

Source: OECD, Pension Markets in Focus 2020 Statistical Annex

Solidarity clauses

None.

Interactions with other pension schemes

None.

Future developments

The Ministry of Finance was considering introducing a new product known as a retirement bond. These bonds would have been able to be purchased only by the Hungarian population and part of its aim would have been to increase the holding of Hungarian government securities within Hungary. [1458] The Ministry of Finance has recently announced that there will be no issuance of such bond as it is not relevant in the current situation.

The Central Bank of Hungary's Competitiveness Programme (The Competitiveness Programme in 330 Points) contains a recommendation on introducing automatic enrolment in voluntary personal pension funds.[1459] Consultations are ongoing for the implementation of a guarantee system with compulsory membership for voluntary pension funds. [1460]

[1454] Chapter 1, Section 2 § 4.c and §5.a of the Act XCVI on Voluntary Mutual Fund, 1993 (*évi XCVI. törvényaz Önkéntes Kölcsönös Biztosító Pénztárakról*). Iopsweb.org. 2019. *IOPS COUNTRY PROFILE: HUNGARY*. [online] Available at: <http://www.iopsweb.org/resources/38669447.pdf> [Accessed 13 May 2021].

[1455] European Trade Union Institute (ETUI) (2019), 'Pensions reforms in Hungary - background summary (updated March 2019)'. Available at https://www.etui.org/covid-social-impact/hungary/pensions-reforms-in-hungary-background-summary-updated-march-2019.

[1456] Chapter 1, Section 2 §5.c of the Act XCVI on Voluntary Mutual Fund, 1993 (*évi XCVI. törvényaz Önkéntes Kölcsönös Biztosító Pénztárakról*). Iopsweb.org. 2019. *IOPS COUNTRY PROFILE: HUNGARY*. [online] Available at: <http://www.iopsweb.org/resources/38669447.pdf> [Accessed 13 May 2021].

[1457] Iopsweb.org. 2019. *IOPS COUNTRY PROFILE: HUNGARY*. [online] Available at: <http://www.iopsweb.org/resources/38669447.pdf> [Accessed 13 May 2021].

[1458] IOPS COUNTRY PROFILE: HUNGARY, September 2019, pg. 3. Available at: http://www.iopsweb.org/resources/38669447.pdf.

[1459] IOPS COUNTRY PROFILE: HUNGARY, September 2019, pg. 4. Available at: http://www.iopsweb.org/resources/38669447.pdf.

[1460] Ibid.

12.8. Italy (Auto-enrolment involving *TFR*)

Basic characteristics

Type of scheme	**Mandatory access auto-enrolment**
Type of provider(s)	Private
Status of the scheme	Active
Year scheme became active	2007

Scope of the scheme

Employer size(s) covered	**All in private sector**
Employer sector(s) covered	All sectors (private)
Type of employees covered	All in private sector at the time of introduction; all first-time private sector employees subsequently
Coverage for self-employed persons?	No

Overview of the Italian pension system

The Italian pension system consists of a mandatory earnings-related scheme with the possibility of social payments if retirement income is below a minimum level, targeted schemes for individuals without an earnings-related pension, as well as occupational pension schemes and voluntary opt-in personal pension schemes.[1461] This fiche is concerned with an occupational auto-enrolment scheme that has been in place since January 2007; there also exist voluntary opt-in occupational schemes.

The contribution rate for the statutory earnings-related scheme is 33%, of which the employee pays one-third and the employer pays two-thirds.[1462]

Personal pension plans based on life insurance contracts (PIPs) are offered by insurance companies and are not limited to a particular group of persons or employees.[1463] Coverage of voluntary personal pensions in Italy is low.[1464]

Transition mechanisms

From 2007, with entry into force of the Legislative Decree 252/2005,[1465] which modified the Legislative Decree No 124 of 21 April 1993, employees in the scheme's scope were given a six-month period in which to choose whether to invest their annual severance pay provision (the *Trattamento di Fine Rapporto* (*TFR*)) into an occupational pension fund or to keep it within the

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1461 OECD (2019) 'Italy', *Pensions at a glance 2019: Country profiles - Italy.* Available at: https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Italy.pdf

1462 *Ibid.*

1463 Decreto Legislativo 18 febbraio 2000, n. 47, Disciplina fiscale della previdenza complementare, a norma dell'articolo 3 della legge 13 maggio 1999, n. 133. (Legislative Decree no. 47 of 18 February 2000, Reform of the fiscal discipline of supplementary pensions, pursuant to article 3 of Law 133 of 13 May 1999), available at: Dlgs 47/2000 - Riforma della disciplina fiscale della previdenza complementar... (camera.it), last accessed on 08/02/2021.

1464 OECD (2020), 'Pension Markets in Focus 2020', Statistical Tables. Available at https://www.oecd.org/finance/private-pensions/globalpensionstatistics.htm.

1465 Decreto legislativo 21 aprile 1993, n. 124, Disciplina delle forme pensionistiche complementari, a norma dell'articolo 3, comma 1, lettera v, della legge 23 ottobre 1992, n. 421, (Legislative Decree No 124 of 21 April 1993 - Rules governing supplementary pension schemes, pursuant to Article 3(1)(v) of Law No 421 of 23 October 1992), available at: Decreto legislativo N° 124/1993 - Decreto legislativo N° 47/2000 (previdenzaintegrativa.net), last accessed on 08/02/2021.

company.[1466] If they did not make an active choice, the default option was that the TFR was paid into a pension fund, which could be the reference 'contractual pension funds' (a fund which is the result of collective bargaining by the representatives of employers and employees)[1467] or, in the absence of such fund, a 'residual fund' (FONDINPS) set up at the National Social Security Institute (INPS). This second way of enrolment in a pension fund is the so-called 'tacit adhesion'.[1468] A compulsory form has been introduced that workers must complete to confirm their tacit inscription.[1469] Also for the explicit adhesion, the completion of specific forms and questionnaires is required. For new employees, the six-month period begins from the date on which they are hired.[1470]

Coverage rates associated with the scheme

67,000 employees were auto-enrolled – became a member of a pension fund without having actively chosen to do so because of the auto-enrolment scheme – by the end of 2007, the first year of operation.[1471] Participation in occupational pension schemes rose by 1.4 million people by that year; most of those who joined occupational pension schemes explicitly chose to do so.[1472] Now, approximately 31.4% of the workforce in Italy participates in occupational and personal pensions.[1473] Between 2007 and 2019, the number of people auto-enrolled – who became members of a pension fund without having explicitly chose to because of the auto-enrolment scheme – was approximately 307,800.[1474] This corresponds to around 2-3% of private sector employees in Italy.

Contribution rates of the scheme

The TFR's value in a year is equal to 6.91% of the worker's salary for that year.[1475] The employer pays 'interest' on this of 1.5% plus ¾ of the inflation rate.[1476]

If an employee explicitly chooses to join a pension fund, the contribution is composed of up to 3 elements:

- The TFR's value in a year (as above);
- A voluntary contribution from the employee;
- A matching employer contribution that is conditional on the employee's voluntary contribution, at a rate determined by collective bargaining agreements (typically 1-1.5% of salary).[1477]

1466 OECD (2008). *Pension Country Profile: Italy*. OECD Private Pensions Outlook 2008, available at: https://www.oecd.org/finance/private-pensions/42566263.pdf, last consulted on 08/02/2021.

1467 Article 3 of the Legislative Decree 252/2005.

1468 Article 8 of the Legislative Decree 252/2005.

1469 Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

1470 Article 8 of the Legislative Decree 252/2005.

1471 Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

1472 Ibid.

1473 Commissione di Vigilanza sui Fondi Pensione (COVIP), 'Supplementary pension funds in Italy at end-2019: Main data', available at https://www.covip.it/sites/default/files/relazioneannuale/annual_report_2019_-_main_data.pdf.

1474 COVIP, 'Relazione per l'anno 2019'. Available at https://www.covip.it/sites/default/files/relazioneannuale/1592977485covipra2019.pdf.

1475 OECD. *What is the TFR.* Available at: http://www.oecd.org/finance/private-pensions/37696176.pdf, last accessed on 08/02/2021.

1476 Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

1477 Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

If the employee's flow of TFR contributions are directed to a pension fund without them explicitly choosing to do so, neither the voluntary employee contribution nor the matching employer contribution are present.[1478]

Providers

Pension contributions from auto-enrolment of TFR mostly go to industry-wide occupational plans, the 'contractual pension funds' (or 'closed funds').[1479]

Pension funds are set up according to the modalities specified in the Legislative Decree 252/2005. These are independent legal entities, with their resources, capital, and organization. In order to operate, providers must set up their organization according to the Legislative Decree 1993/124 and must be authorized by the Pension Funds Supervisory Commission (*Commissione Vigilanza sui Fondi Pensione, COVIP*).[1480]

Tax and financial incentives

Pension contributions in Italy are taxed in an 'ETT' regime. Employee and employer pension contributions are tax-deductible up to an upper limit on total contributions of 5,164.57 euros a year (which applies to the sum of employee and employer contributions); the TFR does not count toward this limit.[1481] Net investment income from pensions is taxed at an annual rate of 20%. A tax rate of 15%, decreasing by 0.3% for every year of participation up to a maximum reduction of 6%, applies to benefits net of what was taxed during the accumulation phase.[1482] This is more favourable taxation than that which exists for other benefits received as lump sums.[1483]

Opt-out conditions

Employees have a six-month window in which they can opt out; contributions begin only after the end of the window.[1484] Employers are required to provide workers with a form by which they can indicate their choice; an employee is auto-enrolled if they make no active choice.[1485] The decision to pay the TFR contributions into a pension fund is irrevocable.[1486]

Accumulation conditions

Over the course of a whole career, the pension benefit from contributing the TFR is expected to achieve a replacement rate of 10-15% of final pay.[1487] The default investment strategies for auto-enrolled TFR contributions are conservative and guarantee, on a best-effort basis, the same rate of return as the TFR revaluation rate (1.5% plus ¾ of the inflation rate).[1488] If the worker explicitly chooses to direct the flow of their TFR contributions to a pension fund they can choose a sub-fund (and associated investment strategy); sub-funds are classified according to the criteria established by the national authority COVIP.[1489]

[1478] Article 8(10) of the Legislative Decree 252/2005.

[1479] OECD (2008). *Pension Country Profile: Italy*. OECD Private Pensions Outlook 2008, available at: https://www.oecd.org/finance/private-pensions/42566263.pdf, last consulted on 08/02/2021.

[1480] Article 4 of the Legislative Decree 252/2005. See also: COVIP | Commissione di Vigilanza sui Fondi Pensione.

[1481] Article 8 of the Legislative Decree 252/2205.

[1482] Article 11 of the Legislative Decree 252/2005.

[1483] OECD (2008). *Pension Country Profile: Italy*. OECD Private Pensions Outlook 2008.

[1484] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm.

[1485] Article 8 of the Legislative Decree 252/2005.

[1486] European Monitoring Centre on Change (Eurofound) (2019). *Italy: Severance pay/ redundancy compensation.* Available at: https://www.eurofound.europa.eu/observatories/emcc/erm/legislation/italy-severance-payredundancy-compensation, last accessed on 08/02/2021.

[1487] Pension Funds Online, 'Pension System in Italy'. Available at https://www.pensionfundsonline.co.uk/content/country-profiles/italy, last accessed on 08/02/2021.

[1488] Centre for Applied Research in Finance (CAREFIN), Università Bocconi (2010), 'Pension Funds in Italy', available at http://www.iopsweb.org/resources/48238257.pdf.

[1489] OECD. *What is the TFR.* Available at: http://www.oecd.org/finance/private-pensions/37696176.pdf, last accessed on 08/02/2021.

Decumulation conditions

There are three options for withdrawal upon retirement: all of the accrued entitlements are converted into an annuity; up to half of the accrued entitlements can be withdrawn as a lump sum and the remainder can be converted into an annuity; and all of the accrued entitlements can be withdrawn as a lump sum only if the result of converting 70% of the accrued entitlements to an annuity is less than half of the public social pension.[1490]

Early withdrawals are allowed in certain circumstances such as in the event of unemployment, purchase of a house, and medical expenses.[1491]

Performance of underlying investment vehicles

In 2019, industry-wide pension funds in Italy achieved average returns of 7.2% after costs and taxes.[1492] In the same year, the rate of revaluation of the TFR was 1.5% after taxes.[1493]

Solidarity clauses

None.

Interactions with other pension schemes

The public pension in Italy has historically been generous and participation in supplementary occupational and personal pensions has historically been low.[1494] In 2015, public pension expenditure in Italy stood at 16.2% of GDP; the OECD average was 8%.[1495] Social security contributions are high, with employer and employee social security contributions totalling 33%.[1496] The generous public pension and large proportion of gross income taken as social security contributions may have encouraged opt-outs from auto-enrolment.

Individuals without a contributory pension benefit can claim a social assistance benefit from 67 years. In 2018, this increased to 66 years and 7 months and will continue to increase in line with life expectancy. In 2018, this totalled 5,889 euros annual with 13 payments per year. Beneficiaries 70 or over receive an additional monthly pension – bringing the total to 8,370.18 euros. Supplementary allowances are granted to citizens receiving social allowance who have a spouse with no dependent income.

Future developments

There is increasing interest in Italy in another mechanism that aims to increase coverage of occupational pensions. In 2015, a collective bargaining agreement was reached in the construction industry that makes it compulsory for employers to contribute to Prevedi, the industry-wide pension fund, at a rate specified in the agreement.[1497] Employee contributions are voluntary and COVIP has granted the industry an exemption from the requirement for an employee's TFR contributions to be transferred to an occupational pension fund if that employee joins that fund.[1498]

[1490] Article 11 of the Legislative Decree 252/2005; Centre for Applied Research in Finance (CAREFIN), Università Bocconi (2010), 'Pension Funds in Italy', p. 18, available at http://www.iopsweb.org/resources/48238257.pdf, last accessed on 08/02/2021.

[1491] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/financial-markets-insurance-and-pensions-2019.htm, last accessed on 08/02/2021.

[1492] COVIP, 'Supplementary pension funds in Italy at end-2019: Main data', available at https://www.covip.it/sites/default/files/relazioneannuale/annual_report_2019_-_main_data.pdf.

[1493] Ibid.

[1494] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[1495] OECD (2019), 'OECD and G20 Indicators: Public expenditure on pensions', *Pensions at a Glance 2019*. Available at https://www.oecd-ilibrary.org/social-issues-migration-health/pensions-at-a-glance-2019_b6d3dcfc-en, last accessed on 08/02/2021.

[1496] Rinaldi, A. (2011), 'Auto-enrolment in Private, Supplementary Pensions in Italy' in *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*. Available at https://www.oecd-ilibrary.org/finance-and-investment/improving-financial-education-efficiency_9789264108219-en.

[1497] Bizzotto, E. (2017), 'Pension funds and behavioural finance: analysis of pension communication strategies in relation to the role of biases in retirement decisions'. Available at http://dspace.unive.it/bitstream/handle/10579/10738/843295-1213503.pdf?sequence=2.

[1498] Ibid.

Hence, the only contributions that are compulsory are employer contributions; in 2015, 92% of members contributed only this 'contractual' amount.[1499] Prevedi's membership grew from 40,000 to 500,000 by the end of 2015, making it the largest pension fund in Italy (by number of members).[1500] Since then, similar agreements have been reached in relation to ten other industry pension funds; these ten funds and Prevedi together have 1.7 million members of whom 1.1 million are members by virtue of this mechanism.[1501]

1499 Ibid.

1500 Ibid.

1501 COVIP, 'Relazione per l'anno 2019'. Available at https://www.covip.it/sites/default/files/relazioneannuale/1592977485covipra2019.pdf.

12.9. Lithuania (State-mandated auto-enrolment scheme)

Basic characteristics

Type of scheme	**State mandated auto-enrolment**
Type of provider(s)	Pension Accumulation Companies (PACs)
Status of the scheme	Active
Year scheme became active	2004 (AE since 2019)

Scope of the scheme

Employer size(s) covered	**All employer sizes**
Employer sector(s) covered	All employer sectors
Type of employees covered	Persons who are below the retirement age with income from which State social insurance contributions are calculated on a mandatory basis
Coverage for self-employed persons?	Yes

Overview of the Lithuanian pension system

Lithuania's pension system consists of a pay-as-you-go (PAYG) public pension, a statutory private funded pension scheme, and voluntary, tax-favoured personal savings. The statutory private funded pension scheme is a defined contribution scheme that was introduced in 2004 and in January 2019 auto-enrolment was introduced for all employees below the age of 40.[1502]

The public pension is a defined benefit (DB) scheme with mandatory participation financed on a PAYG basis by employer and employee social contributions.[1503] Participation is mandatory for the private sector, the military, police, civil service, and some groups of self-employed. Pension entitlements are composed of two parts, 1) a basic part which depends on the value of the contributions, and 2) an earnings-related part which is capped at five times the former wage. As a large part of payments depends on the length of the contribution period the system is quite redistributive. Persons with at least 15 years if contributions are entitled to receive a partial pension and those with 32 years of contributions are entitled to a 'full' pension.[1504] Additional social assistance pensions are available to pensioners with insufficient contributions towards the social insurance pension. State pensions are granted to groups such as victims of the Soviet regime and certain professional groups as a supplement to social insurance pensions. Pensions are indexed to the growth of the economy-wide wage sum over seven years (sustainability factor).

Transition mechanisms

In 2004, the Lithuanian government introduced two privately funded defined contribution (DC) pension schemes,[1505] a statutory private funded pension scheme and tax-favoured private savings.

[1502] OECD (2018), *OECD Economic Surveys: Lithuania 2018*. OECD publishing, Paris. Available at: https://www.oecd-ilibrary.org/sites/eco_surveys-ltu-2018-6-en/index.html?itemId=/content/component/eco_surveys-ltu-2018-6-en.

[1503] Law on State Social Insurance 1991, (*Lietuvos Respublikos valstybinio socialinio draudimo įstatymas*).

[1504] Oecd.org. 2019. Pensions at a Glance 2019: Country Profiles - Lithuania. [online] Available at: <https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Lithuania.pdf> [Accessed 5 March 2021].

[1505] Law on the Supplementary Voluntary Accumulation of Pensions 1999, (*Lietuvos Respublikos papildomo savanoriško pensijų kaupimo įstatymas*), available at: https://www.e-tar.lt/portal/lt/legalAct/TAR.DDA1BD559D9B/asr; Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*), available at: https://www.e-tar.lt/portal/lt/legalAct/TAR.1F58348F79F7/asr

Until 2019, the statutory private funded pension scheme allowed persons who were contributing to the social insurance pension system to redirect a fixed part of their public pension into a private statutory defined contribution scheme. Participation in the scheme was voluntary but once the decision was made to participate that decision could not be revoked. In late 2016 around 64% of the working age population had a statutory funded pension, although only about two-thirds were paying contributions.[1506] Auto-enrolment into the privately funded DC pension scheme was introduced in 2019.[1507] The State Social Insurance Fund Board (Sodra) enrols all employees and self-employed, aged under 40 with the option of opting out within six months.

The second privately funded scheme established was DC scheme which could be set up by an individual or as part of an employment contact. The Law on Occupational Pension Accumulation (2006)[1508] introduced the ability for firms to establish an occupational pension scheme but as of early 2021, none have been established.[1509]

Coverage rates associated with the scheme

Overall

The overall coverage, measured as a ratio between the number of participants and the economically active population was almost 91% in 2020.[1510; 1511]

Eligible employees

All economically active individuals are eligible for the scheme, that is persons with income, from which State social insurance contributions are calculated on a mandatory basis to receive pension, and yet to reach retirement age.[1512; 1513]

Contribution rates of the scheme

In 2004, the level of social insurance contributions which participants could channel into their personal DC accounts was 2.5% of their gross wage;[1514] this increased to 3.5% in 2005, 4.5% in 2006 and 5.5% in 2007. In 2009, the allowance was reduced to 2% due to the economic crisis. In 2012 the allowance decreased again to 1.5% of gross wages before increasing to 2.5% in 2013. From 2014 to 2018 the level of social insurance contributions which participants could channel into their personal DC accounts was stable at 2%.[1515] Prior to 2019, contributions consisted of a social insurance contribution of 2% of gross salary, an optional matching personal contribution of 2% of gross salary and a government subsidy equal to 2% of the average wage (the '2+2+2' formula).

As of 1st January 2019, participants are no longer able to transfer Social Insurance contributions to their privately funded pension. Contributions now consist of a gross salary contribution and an

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1506 OECD iLibrary. 2018. OECD Reviews of Labour Market and Social Policies: Lithuania | READ online. [online] Available at: <https://read.oecd-ilibrary.org/social-issues-migration-health/oecd-reviews-of-labour-market-and-social-policies-lithuania_9789264189935-en#page182> [Accessed 5 March 2021].

1507 Iopsweb.org. 2019. IOPS COUNTRY PROFILE: LITHUANIA. [online] Available at: <http://www.iopsweb.org/resources/41548508.pdf> [Accessed 5 March 2021].

1508 Law on the Accumulation of Occupational Pensions 2006, (*Lietuvos Respublikos profesinių pensijų kaupimo įstatymas*), available at: https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.280574/asr.

1509 Iopsweb.org. 2019. IOPS COUNTRY PROFILE: LITHUANIA. [online] Available at: <http://www.iopsweb.org/resources/41548508.pdf> [Accessed 5 March 2021].

1510 SoDra. 2021. *Statistical data website*. [online] Available at: <https://atvira.sodra.lt/en-eur/> [Accessed 11 June 2021].].

1511 OECD. 2021. *Employment - Labour force - OECD Data*. [online] Available at: <https://data.oecd.org/emp/labour-force.htm> [Accessed 11 June 2021].

1512 Betterfinance.eu. 2020. Pension Savings: The Real Return Country Case: Lithuania. [online] Available at: <https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Lithuania.pdf> [Accessed 5 March 2021].

1513 Article 4, Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*); Article 7, Law on State Social Insurance 1991, (*Lietuvos Respublikos valstybinio socialinio draudimo įstatymas*), available at: https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.1327/asr.

1514 OECD iLibrary. 2018. OECD Reviews of Labour Market and Social Policies: Lithuania | READ online. [online] Available at: <https://read.oecd-ilibrary.org/social-issues-migration-health/oecd-reviews-of-labour-market-and-social-policies-lithuania_9789264189935-en#page182> [Accessed 5 March 2021].

1515 Socmin.lrv.lt. 2020. Funded pension scheme. [online] Available at: <https://socmin.lrv.lt/en/activities/social-insurance-1/funded-pension-scheme> [Accessed 5 March 2021].

additional pension contribution from the State Budget. Those who were contributing under the '2+2+2' formula had the option of:

- Suspending their contributions and leaving their accrued monies in their pension fund
- Stop contributions and transfer the monies into the social security fund
- Continue contributing to their pension fund with gross salary contributions increased from 2% to the full 3% gross wage contribution.[1516]

For those who were automatically enrolled or who opt into the scheme after 1st July 2019, contributions will gradually increase as follows:[1517]

- 1.8% in 2019;
- 2.1% in 2020;
- 2.4% in 2021;
- 2.7% in 2022;
- 3% in 2023.

Beneficiaries who opt in can choose to contribute the maximum 3% from the start of enrolment.[1518] Additionally, those who are automatically enrolled can increase their contributions to the maximum 3% if they submit a request to their provider or Pension Accumulation Company (PAC).[1519]

In addition to personal contributions, beneficiaries will receive a State contribution equal to a percentage of the average gross salary in Lithuania. Between 2019 and 2023 the state contribution will gradually increase from 0.3% to 1.5% of the gross average salary.[1520] As this payment is fixed it is higher in value for those on low incomes relative to those on high incomes. The Government contributions are paid during maternity or paternity leave for each child and contributions last until the child is 3 years old. Participants can elect to contribute more than 3% of their gross salary and will benefit from personal income tax relief.[1521] Employers may pay additional contributions, for example by virtue of a collective agreement.[1522] Employers that contribute to a plan on behalf of an employee will also benefit from tax relief.[1523]

From 1 January 2019, a ceiling on social security contributions was introduced, wages above the ceiling are not considered in the calculation of contributions. The value of the ceiling has decreased over time as follows:

- 2019: 120% of the average wage;
- 2020: 84% of the average wage;
- 2021: 60% of the average wage.

[1516] *Ibid.*

[1517] Annex to the Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1518] Article 8, Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1519] Seb.lt. 2021. Second pension pillar | SEB. [online] Available at: <https://www.seb.lt/eng/private/pension/building-pension-savings/second-pension-pillar> [Accessed 5 March 2021].

[1520] OECD. 2021. *Financial incentives for funded private pension plans OECD COUNTRY PROFILES 2020*. [online] Available at: <https://www.oecd.org/daf/fin/private-pensions/Financial-Incentives-for-Funded-Pension-Plans-in-OECD-Countries-2020.pdf> [Accessed 14 June 2021].

[1521] Seb.lt. 2021. Second pension pillar | SEB. [online] Available at: <https://www.seb.lt/eng/private/pension/building-pension-savings/second-pension-pillar> [Accessed 5 March 2021].

[1522] Iopsweb.org. 2019. *IOPS COUNTRY PROFILE: LITHUANIA*. [online] Available at: <http://www.iopsweb.org/resources/41548508.pdf> [Accessed 5 March 2021].

[1523] Article 8(4), Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*); Seb.lt. 2021. Second pension pillar | SEB. [online] Available at: <https://www.seb.lt/eng/private/pension/building-pension-savings/second-pension-pillar> [Accessed 5 March 2021].

Beneficiaries can suspend contributions (contribution holiday) for a total of 12 months throughout their participation in the scheme.[1524] Contribution holidays can be taken several months at a time as long as the duration does not exceed one year.[1525]

Providers

Contributions are managed by Pension Accumulation Companies PACs. PACs must obtain licenses from the market regulator and supervisory body, which is the Bank of Lithuania.[1526] Originally, each provider (PAC) had to offer 7 life-cycle funds and 1 capital preservation fund but the number of funds a provider needs to offer is no longer defined. Currently, 40 pension funds are offered by 5 management companies.[1527]

Providers are obligated to offer participants only those funds which are most appropriate for them. Appropriate funds are determined by the individual's age. The Law of Pension Accumulation obligates the PACs to establish a new fund, when the youngest participants reach 22 years old. For example, since the youngest target group is currently '1996-2002', a new fund will be established when those born in 2003 reach the age of 22 (i.e., in 2025). This new fund will target all those born in 2003-2009.

Name of provider	Name of fund
Life-cycle pension funds, 1996-2002	
Luminor investicijų valdymas UAB	Luminor 1996–2002 tikslinės grupės pensijų fondas
UAB „INVL Asset Management'	INVL pensija 1996–2002
UAB „SEB investicijų valdymas'	SEB 1996–2002 metų tikslinės grupės pensijų kaupimo fondas
UAB „Swedbank investicijų valdymas'	Swedbank pensija 1996–2002
UAGDPB „Aviva Lietuva'	Aviva Y3 1996–2002 tikslinės grupės pensijų fondas
Life-cycle pension funds, 1989-1995	
Luminor investicijų valdymas UAB	Luminor 1989–1995 tikslinės grupės pensijų fondas
UAB „INVL Asset Management'	INVL pensija 1989–1995
UAB „SEB investicijų valdymas'	SEB 1989–1995 metų tikslinės grupės pensijų kaupimo fondas
UAB „Swedbank investicijų valdymas'	Swedbank pensija 1989–1995
UAGDPB „Aviva Lietuva'	Aviva Y2 1989–1995 tikslinės grupės pensijų fondas
Life-cycle pension funds, 1982-1988	
Luminor investicijų valdymas UAB	Luminor 1982–1988 tikslinės grupės pensijų fondas
UAB „INVL Asset Management'	INVL pensija 1982–1988
UAB „SEB investicijų valdymas'	SEB 1982–1988 metų tikslinės grupės pensijų kaupimo fondas
UAB „Swedbank investicijų valdymas'	Swedbank pensija 1982–1988
UAGDPB „Aviva Lietuva'	Aviva Y1 1982–1988 tikslinės grupės pensijų fondas
Life-cycle pension funds, 1975-1981	
Luminor investicijų valdymas UAB	Luminor 1975–1981 tikslinės grupės pensijų fondas
UAB „INVL Asset Management'	INVL pensija 1975–1981
UAB „SEB investicijų valdymas'	SEB 1975–1981 metų tikslinės grupės pensijų kaupimo fondas
UAB „Swedbank investicijų valdymas'	Swedbank pensija 1975–1981
UAGDPB „Aviva Lietuva'	Aviva X3 1975–1981 tikslinės grupės pensijų fondas
Life-cycle pension funds, 1968-1974	
Luminor investicijų valdymas UAB	Luminor 1968–1974 tikslinės grupės pensijų fondas
UAB „INVL Asset Management'	INVL pensija 1968–1974
UAB „SEB investicijų valdymas'	SEB 1968–1974 metų tikslinės grupės pensijų kaupimo fondas
UAB „Swedbank investicijų valdymas'	Swedbank pensija 1968–1974
UAGDPB „Aviva Lietuva'	Aviva X2 1968–1974 tikslinės grupės pensijų fondas

[1524] Article 13, Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1525] Seb.lt. 2021. Second pension pillar | SEB. [online] Available at: <https://www.seb.lt/eng/private/pension/building-pension-savings/second-pension-pillar> [Accessed 5 March 2021].

[1526] Article 3, Law on the Supplementary Voluntary Accumulation of Pensions 1999, (*Lietuvos Respublikos papildomo savanoriško pensijų kaupimo įstatymas*); Article 3, Law on Collective Investment Undertakings 2003, (*Lietuvos Respublikos kolektyvinio investavimo subjektų įstatymas*) available at: https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.215766/asr.

[1527] Betterfinance.eu. 2020. Pension Savings: The Real Return Country Case: Lithuania. [online] Available at: <https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Lithuania.pdf> [Accessed 5 March 2021].

Name of provider	Name of fund
Life-cycle pension funds, 1961-1967	
Luminor investicijų valdymas UAB	Luminor 1961–1967 tikslinės grupės pensijų fondas
UAB „INVL Asset Management'	INVL pensija 1961–1967
UAB „SEB investicijų valdymas'	SEB 1961–1967 metų tikslinės grupės pensijų kaupimo fondas
UAB „Swedbank investicijų valdymas'	Swedbank pensija 1961–1967
UAGDPB „Aviva Lietuva'	Aviva X1 1961–1967 tikslinės grupės pensijų fondas
Life-cycle pension funds, 1954-1960	
Luminor investicijų valdymas UAB	Luminor 1954–1960 tikslinės grupės pensijų fondas
UAB „INVL Asset Management'	INVL pensija 1954–1960
UAB „SEB investicijų valdymas'	SEB 1954–1960 metų tikslinės grupės pensijų kaupimo fondas
UAB „Swedbank investicijų valdymas'	Swedbank pensija 1954–1960
UAGDPB „Aviva Lietuva'	Aviva B 1954–1960 tikslinės grupės pensijų fondas
Asset preservation pension funds	
Luminor investicijų valdymas UAB	Luminor turto išsaugojimo fondas
UAB „INVL Asset Management'	INVL pensijų turto išsaugojimo fondas
UAB „SEB investicijų valdymas'	SEB turto išsaugojimo pensijų kaupimo fondas
UAB „Swedbank investicijų valdymas'	Swedbank turto išsaugojimo pensijų fondas
UAGDPB „Aviva Lietuva'	Aviva S turto išsaugojimo pensijų fondas

Source: Bank of Lithuania

Life-cycle funds are grouped upon the year each cohort was born. The asset preservation fund is for those born before 1954 (as at 2021). The aim of the fund is to protect the beneficiary's assets from significant changes in unit values of pension funds and the risk of inflation.[1528]

Tax and financial incentives

Lithuania operates a taxed-exempt-exempt (TEE) system, with only employee contributions above the minimum 3% being tax-deductible. Investment income and benefits are also tax-exempt.[1529]

Opt-out conditions

Economically active persons under the age of 40 will be enrolled with the right to opt-out within the specified period. The auto-enrolment procedure is repeated every three years.[1530; 1531]

Since 2019, the pension scheme has undergone several changes including scheme contribution sources. As a result of the changes, additional opt-out and enrolment conditions have been enacted.[1532]

Beneficiaries who were enrolled in the scheme but who wanted to opt out as a result of the reforms could elect one of the following options prior to July 2019:

- Transfer monies in the fund back to the State Social Insurance Fund and have their rights to a full retirement pension restored, or
- Terminate their participation in the pension fund and leave the money accumulated in the fund until they reach retirement age.

[1528] Swedbank.lt. 2021. Pensija. [online] Available at: <https://www.swedbank.lt/private/investor/pensions/pillar2> [Accessed 5 March 2021].

[1529] OECD. 2021. *Financial incentives for funded private pension plans OECD COUNTRY PROFILES 2020*. [online] Available at: <https://www.oecd.org/daf/fin/private-pensions/Financial-Incentives-for-Funded-Pension-Plans-in-OECD-Countries-2020.pdf> [Accessed 14 June 2021].

[1530] Article 6, Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1531] Oecd.org. 2019. Pensions at a Glance 2019: Country Profiles - Lithuania. [online] Available at: <https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Lithuania.pdf> [Accessed 5 March 2021].

[1532] Article 6, Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

Individuals who terminated their participation in the scheme in 2013 and those who terminated participation in the first half of 2019, will be offered to re-enrol 3 times every 3 years, even if they are over the age of 40.[1533]

Accumulation conditions

Time commitment

Generally, individuals are not allowed to withdraw before reaching the State pension age (currently 63 years and 4 months for women and 64 years and 2 months for men[1534])[1535], however if a participant is granted an early State social insurance old-age pension (no earlier than 5 years prior to the date of full retirement) they may be able to also receive their pension.[1536]

Persons can only receive early retirement if they have at least 32 years of contributions to the State pensions. Benefits are reduced by 0.32% for every month the pension is awarded prior to reaching the normal retirement age. Pensions can also be deferred between 1 and 5 years with the pension increased by 8% for each year of deferral.[1537]

Investment strategy

As of 2019, contributions are invested in a life-cycle fund which alters the investment risk based upon the beneficiaries' age.[1538] In general, investment strategies do not specify limitations or special requirements towards local market[1539]. Funds are largely invested in equity UCITS funds (CIUs) and government bonds.[1540]

Since the 2019 reforms, the management fee on pension funds is gradually being reduced as follows:[1541]

- 0.8% in 2019;
- 0.65% in 2020;
- 0.5% in 2021.

The management fee for the asset preservation fund is 0.2%.[1542]

Decumulation conditions

The method of decumulation depends on the value of the assets accumulated:[1543;1544]

[1533] Socmin.lrv.lt. 2020. Funded pension scheme. [online] Available at: <https://socmin.lrv.lt/en/activities/social-insurance-1/funded-pension-scheme> [Accessed 5 March 2021]; Article 6, Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1534] Oecd-ilibrary.org. 2019. OECD iLibrary | Home. [online] Available at: <https://www.oecd-ilibrary.org/sites/eco_surveys-ltu-2018-6-en/index.html?itemId=/content/component/eco_surveys-ltu-2018-6-en> [Accessed 5 March 2021].

[1535] Ec.europa.eu. n.d. Lithuania - Employment, Social Affairs & Inclusion - European Commission. [online] Available at: <https://ec.europa.eu/social/main.jsp?catId=1119&langId=en&intPageId=4666> [Accessed 5 March 2021].

[1536] Seb.lt. 2021. Second pension pillar | SEB. [online] Available at: <https://www.seb.lt/eng/private/pension/building-pension-savings/second-pension-pillar> [Accessed 5 March 2021].

[1537] Iopsweb.org. 2019. IOPS COUNTRY PROFILE: LITHUANIA. [online] Available at: <http://www.iopsweb.org/resources/41548508.pdf> [Accessed 5 March 2021].

[1538] Betterfinance.eu. 2020. Pension Savings: The Real Return Country Case: Lithuania. [online] Available at: <https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Lithuania.pdf> [Accessed 5 March 2021].

[1539] Ebrd.com. n.d. Pension fund industry in Lithuania. [online] Available at: <https://www.ebrd.com/downloads/news/Pension_fund_industry_in_Lithuania.pdf> [Accessed 5 March 2021].

[1540] Betterfinance.eu. 2020. Pension Savings: The Real Return Country Case: Lithuania. [online] Available at: <https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Lithuania.pdf> [Accessed 5 March 2021].

[1541] Article 22(3), Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1542] Article 22(3), Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*); Betterfinance.eu. 2020. Pension Savings: The Real Return Country Case: Lithuania. [online] Available at: <https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Lithuania.pdf> [Accessed 5 March 2021].

[1543] Socmin.lrv.lt. 2020. Funded pension scheme. [online] Available at: <https://socmin.lrv.lt/en/activities/social-insurance-1/funded-pension-scheme> [Accessed 5 March 2021].

[1544] Article 29, Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*); Article 36, Law on the Supplementary Voluntary Accumulation of Pensions 1999, (*Lietuvos Respublikos papildomo savanoriško pensijų kaupimo įstatymas*).

- Up to €5,000: the accumulated amount will be paid as a lump-sum.[1545]
- €5,001 to €10,000: The accumulated amount will be paid out in monthly or quarterly payments until the beneficiary reaches the age of 85. The value of the pay-out may change depending on the fund unit value.[1546]
- Over €10,000: The beneficiary must choose from one of the following annuities offered by Sodra: standard[1547], standard with a guarantee or deferred[1548].[1549]
- Over €60,000: An annuity will be purchased with €60,000 and the remaining monies can be paid as a lump sum.[1550]

The State Social Insurance Fund is the centralised provider of annuity services.[1551]

Performance of underlying investment vehicles

All funds below have been in operation since 1st January 2019.

Name of management company	Size of fund, EUR millions[1552]	Number of participants	2-year average annual return[1553]	Benchmark 2-year average annual return[1554]
Life-cycle pension funds, 1996-2002				
Weighted average[1555]			**12.08**	**13.39**
Luminor investicijų valdymas UAB	4.21	8,461	15.01	12.97
UAB „INVL Asset Management'	10.44	12,870	13.05	14.05
UAB „SEB investicijų valdymas'	13.20	14,522	12.93	14.35
UAB „Swedbank investicijų valdymas'	31.07	36,269	11.06	13.33
UAGDPB „Aviva Lietuva'	10.30	14,729	11.88	11.86
Life-cycle pension funds, 1989-1995				
Weighted average			**12.54**	**13.44**
Luminor investicijų valdymas UAB	31.27	18,068	14.66	12.97
UAB „INVL Asset Management'	68.82	33,112	12.85	14.05
UAB „SEB investicijų valdymas'	83.47	41,040	13.14	14.35
UAB „Swedbank investicijų valdymas'	176.99	89,670	11.89	13.33
UAGDPB „Aviva Lietuva'	54.11	31,688	12.14	11.86
Life-cycle pension funds, 1982-1988				
Weighted average			**12.78**	**13.51**
Luminor investicijų valdymas UAB	73.17	26,227	14.41	12.97

[1545] Article 31, Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1546] Article 32, Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1547] Payment of pension benefits commence immediately and last for life. The standard pension annuity is not heritable.

[1548] Refers to an annuity purchased by the participant after reaching retirement age and whereby annuity benefits commence after reaching the age of 85 and last for life. Between the ages of 65 and 84 the beneficiary receives periodic payments from the pension fund (which are heritable). Once the beneficiary reaches the age of 85 the beneficiary also receives the deferred pension annuity benefits, which are paid by the State Social Insurance Fund. The deferred pension annuity is not heritable.

[1549] Article 33, Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1550] Article 29(6), Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1551] Article 29(9), Law on Pension Accumulation 2003, (*Lietuvos Respublikos pensijų kaupimo įstatymas*).

[1552] The net asset value represents the net value of an entity and is calculated as the total value of the entity's assets minus the total value of its liabilities.

[1553] Calculated based on the value change in the unit of account over the specified period. Average annual return is calculated by applying the geometric mean.

[1554] Calculated based on the value change in the unit of account over the specified period. Average annual return is calculated by applying the geometric mean.

[1555] To calculate the weighted average, the value of the net assets of pension funds as of 31/03/2021 is used.

Name of management company	Size of fund, EUR millions[1552]	Number of participants	2-year average annual return[1553]	Benchmark 2-year average annual return[1554]
UAB „INVL Asset Management'	145.08	42,264	12.82	14.05
UAB „SEB investicijų valdymas'	224.77	70,703	13.31	14.35
UAB „Swedbank investicijų valdymas'	289.09	106,742	12.15	13.33
UAGDPB „Aviva Lietuva'	107.90	44,707	12.22	11.86
Life-cycle pension funds, 1975-1981				
Weighted average			**12.75**	**13.50**
Luminor investicijų valdymas UAB	94.68	21,481	14.48	12.97
UAB „INVL Asset Management'	162.18	27,290	12.78	14.05
UAB „SEB investicijų valdymas'	315.11	61,772	13.30	14.35
UAB „Swedbank investicijų valdymas'	394.60	97,353	12.15	13.33
UAGDPB „Aviva Lietuva'	144.75	39,849	12.05	11.86
Life-cycle pension funds, 1968-1974				
Weighted average			**11.79**	**12.60**
Luminor investicijų valdymas UAB	96.56	19,961	14.23	12.95
UAB „INVL Asset Management'	144.74	23,063	11.31	12.56
UAB „SEB investicijų valdymas'	294.90	53,124	12.18	13.29
UAB „Swedbank investicijų valdymas'	417.43	95,641	11.71	12.85
UAGDPB „Aviva Lietuva'	164.20	40,253	10.26	10.54
Life-cycle pension funds, 1961-1967				
Weighted average			**8.06**	**8.56**
Luminor investicijų valdymas UAB	81.80	18,212	10.10	8.95
UAB „INVL Asset Management'	99.85	17,965	7.75	8.68
UAB „SEB investicijų valdymas'	241.87	47,210	8.06	9.38
UAB „Swedbank investicijų valdymas'	347.75	84,936	8.58	9.12
UAGDPB „Aviva Lietuva'	161.22	39,336	6.07	5.85
Life-cycle pension funds, 1954-1960				
Weighted average			**4.00**	**4.45**
Luminor investicijų valdymas UAB	32.04	7,730	4.29	5.02
UAB „INVL Asset Management'	27.57	5,455	3.56	3.59
UAB „SEB investicijų valdymas'	92.90	19,311	3.44	4.97
UAB „Swedbank investicijų valdymas'	128.14	31,345	4.65	4.82
UAGDPB „Aviva Lietuva'	69.42	17,264	3.60	3.15
Asset preservation pension funds				
Weighted average			**3.61**	**3.56**
Luminor investicijų valdymas UAB	2.88	1,284	2.77	2.82
UAB „INVL Asset Management'	4.50	1,072	4.81	4.72
UAB „SEB investicijų valdymas'	15.54	3,387	3.27	3.38
UAB „Swedbank investicijų valdymas'	19.84	3,717	3.89	4.11
UAGDPB „Aviva Lietuva'	7.63	3,241	3.19	2.07
Total weighted average			**10.89**	**11.59**

Source: Bank of Lithuania[1556]
Note: Data is accurate as of 31/03/2021.

[1556] See: https://www.lb.lt/en/pf-performance-indicators#ex-1-1

Solidarity clauses

None.

Interactions with other pension schemes

Contributions to the auto-enrolment scheme involve a redirection of social security contributions.

Future developments

The pensionable age is 63 years and 4 months for women and 64 years and 2 months for men in 2021. Pension ages are increasing by four months per year for women and by two months per year for men until they reach a pension age of 65 years for both sexes in 2026.[1557]

In order to receive a full pension, individuals must complete 32 years of service (as of 2021). The number of years of service required to receive a full pension will increase by 6 months per year until reaching 35 years in 2027.[1558] By 2023, personal contributions will be gradually increased to 3% of gross salary.[1559]

There is discussion about eliminating tax incentives for voluntary personal pensions as part of a broader review.

[1557] Oecd.org. 2019. Pensions at a Glance 2019: Country Profiles - Lithuania. [online] Available at: <https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Lithuania.pdf> [Accessed 5 March 2021].

[1558] Oecd.org. 2019. Pensions at a Glance 2019: Country Profiles - Lithuania. [online] Available at: <https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Lithuania.pdf> [Accessed 5 March 2021].

[1559] Swedbank.lt. 2021. Pensija. [online] Available at: <https://www.swedbank.lt/private/investor/pensions/pillar2> [Accessed 5 March 2021].

12.10. The Netherlands (Mandatory industry-wide occupational schemes)

Basic characteristics

Type of scheme	**Mandatory; this fiche focuses on the industry-wide schemes which dominate this system**
Type of provider(s)	Private
Status of the scheme	Currently active
Year the scheme became active	2000 was the year in which legislation was passed that established the current framework for mandating participation in an industry-wide pension fund for all employers in a sector[1560], but the fundamental structure of the pension system has existed for far longer

Scope of the scheme

Employer size(s) covered	**All within the sectors covered**
Employer sector(s) covered	Almost all sectors are covered by sector-wide agreements; in most sectors, participation in industry-wide pension schemes are mandatory
Type of employees covered	All employees over the age of at most 21[1561] (private and public sector)
Coverage for self-employed persons?	In almost all cases, the self-employed are not covered.[1562]

Overview of Dutch pension system

The Dutch pension system consists of a pay-as-you-go flat rate pension, funded occupational pension schemes and voluntary personal savings schemes.[1563] Sector wide agreements mean that over 90% of all private and public sector employees are covered by occupational schemes.[1564]

The AOW was introduced in 1957 and is the general statutory old-age pension. Its value is linked to the net minimum wage, which is increased biannually.[1565] In 2021, the net amount of the AOW absent tax credits was €970.27 per month for a single person with full entitlement and €663.53 per month per person for couples with full entitlement.[1566] The net amounts with tax credits for a single person and a person in a couple were €1,218.19 and €832.86 respectively.[1567] The retirement age is set at 66 and 4 months in 2021 and will increase to 67 in 2024. After 2026, the

[1560] Van der Smitte, J. (2013). 'Short introduction to the pension system in the Netherlands', prepared for the Peer Review in Social Protection and Social Inclusion programme coordinated by ÖSB Consulting, the Institute for Employment Studies (IES) and Applica, and funded by the European Commission.

[1561] Article 14 (1) Pensioenwet 2021 (*Pension Act*) prescribes that the acquisition of entitlements starts at the latest at the age of 21. Available at: https://wetten.overheid.nl/BWBR0020809/2021-01-01, last accessed 10/02/2021.

[1562] Karpowicz, I. (2019), 'Self-Employment and Support for The Dutch Pension Reform', *IMF Working Paper WP/19/64*. Available at https://www.imf.org/en/Publications/WP/Issues/2019/03/19/Self-Employment-and-Support-for-the-Dutch-Pension-Reform-46663.

[1563] OECD (2019) 'The Netherlands', *Pensions at a glance 2019: Country profiles - The Netherlands*. Available at: https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Netherlands.pdf

[1564] Ibid.

[1565] Ibid.

[1566] Social Verzekeringsbank (SVB) (2021), 'AOW pension amounts as from 1 January 2021'. Available at https://www.svb.nl/en/aow-pension/aow-pension-rates/aow-pension-rates.

[1567] Ibid.

retirement age will be linked to life expectancy.[1568] Workers accrue 2% of the full entitlement each year they live or work in the Netherlands from the age of 16 and 4 months.[1569] There is means-tested support available to those who do not have the full AOW entitlement (because of having not lived or worked in the Netherlands for as many as 50 years) and have no other post-retirement provisions.[1570]

There exists also a system of voluntary personal provision by annuity insurance or endowment insurance.[1571] There exist tax reliefs, which are similar to the ones for occupational pensions. However, the tax relief of the pension provision as a whole is limited to a replacement rate of 75%.[1572] This part of the pension system is much smaller than the state and occupational pension elements.

Transition mechanisms

An industry-wide pension scheme (Bedrijfstakpensioenfonds, Bpf) formed from a collective agreement amongst social partners may be made mandatory by the Ministry of Social Affairs and Employment after a request by the employer or employee organisations that made that agreement.[1573] Such a request will be approved, if the social partners represent a substantial majority of the persons employed in that industry. To do so, in general an employer organisation must represent employers who account for at least 60% of employees in the sector in question; such a requirement does not exist for employee organisations.[1574]

Collective pension agreements can also be declared mandatory on a professional level via a profession-wide pension scheme. This can be done by the Ministry of Social Affairs and Employment upon the request of 60% of professionals affiliated with the profession’s union.[1575] Such schemes exist for general practitioners and physiotherapists, for example.[1576]

Coverage rates associated with the scheme

Approximately 90% of the working population in the Netherlands is covered by an occupational pension scheme;[1577] around 76% of these people are covered through an industry-wide pension scheme.[1578] Most of these industry-wide schemes are mandatory.[1579] Coverage is higher now than in the mid-1990s, when it stood at 85% of employees.[1580] Coverage is much lower amongst the self-employed than amongst employees.[1581] Most of the self-employed who are members of these schemes are deferred members who have been an employee at some point.

[1568] Algemene Ouderdomswet (General Old Age Act), available at https://wetten.overheid.nl/BWBR0002221/2021-01-01, last accessed 10/02/2021.

[1569] Article 7a of the Algemene Ouderdomswet; OECD (2017), ‘Pensions at a Glance 2017: Country Profiles – Netherlands’.

[1570] Ibid.

[1571] Ibid.

[1572] Ibid.

[1573] Article 2 (1) of the Wet verplichte deelneming in een bedrijfstakpensioenfonds 2000 (*Act on mandatory participation in an industry-wide pension fund 2000),* available at: https://wetten.overheid.nl/BWBR0012092/2017-09-01, last accessed 10/02/2021*;* European Actuarial & Consulting Services (EURACS), ‘The Netherlands – Pension Summary’. Available at https://euracs.eu/summaries/summary-the-netherlands/.

[1574] Ibid. See also Beleidsregels Toetsingskader Wet Bpf 2000, available at: https://wetten.overheid.nl/BWBR0030815/2021-01-01, last accessed 10/02/2021.

[1575] Ibid. Regulated via the Wet verplichte beroepspensioenregeling, available at: https://wetten.overheid.nl/BWBR0018831/2021-01-01, last accessed 10/02/2021.

[1576] Can be accessed here: https://www.dnb.nl/openbaar-register/register-van-pensioenfondsen/?Article=Artikel+204+Wvb+%28beroep.+psf.%29&Name=#searchbox, last accessed 10/02/2021.

[1577] See, e.g., European Actuarial & Consulting Services (EURACS), ‘The Netherlands – Pension Summary’. Available at https://euracs.eu/summaries/summary-the-netherlands/;Organisation for Economic Co-operation and Development (OECD), 2017, *Pensions at a Glance 2017: OECD and G20 Indicators,* OECD Publishing, Paris. http://dx.doi.org/10.1787/pension_glance-2017-en, last accessed 10/02/2021.

[1578] Ministerie van Sociale Zaken en Werkgelegenheid (2008), ‘The old age pension system in the Netherlands’. Available at http://www.iopsweb.org/resources/48238337.pdf.

[1579] See, for instance, Brouwer, M. (2020), ‘A pension revolution in the Netherlands: a new contract for different times’. 9th July, 2020.

[1580] Kremers, J.J.M. (2002), ‘Pension Reform: Issues in the Netherlands’ in Feldstein, M. and Siebert, H., ed. *Social Security Pension Reform in Europe*. Available at http://www.nber.org/chapters/c10676.

[1581] See, for instance, Karpowicz, I. (2019), ‘Self-Employment and Support for The Dutch Pension Reform’, *IMF Working Paper WP/19/64*. Available at https://www.imf.org/en/Publications/WP/Issues/2019/03/19/Self-Employment-and-Support-for-the-Dutch-Pension-Reform-46663.

Contribution rates of the scheme

The frameworks are mainly set by tax law, the Wage Tax Act 1969. Employees contribute to occupational schemes a fixed percentage of pensionable income, which is equal to gross income minus the part of income expected to be covered by the AOW, up to €100,000;[1582] the latter is known as the 'offset'.[1583] All members of a given (quasi-mandatory) scheme contribute the same percentage of pensionable income, the so-called *doorsneepremie* ('average premium').[1584] That figure, paid by both employers and employees, is generally equal to around 25-30% of gross income.[1585] Currently, in quasi-mandatory schemes the Pension Act also obliges that pension entitlements have to be accrued equally over time (*doorsneeopbouw;* 'average accumulation'). Together, it is called the *doorsneesystematiek*. With the renewed pension rules as of 2026, the *doorsneeopbouw* will be abolished but remaining the equal contribution rate.[1586]

Providers

As of the end of 2019, there were 46 pension funds relating to industry-wide schemes (of which 42 mandatory), nine profession-wide funds and a further 125 funds relating to single-company schemes.[1587]

Stichting Pensioenfonds ABP, the 'National Civil Pension Fund', is the pension fund for employees within the government and education. Commonly referred to as just 'ABP', it is the largest pension fund in the Netherlands and one of the largest in Europe and in the world.[1588] It was privatised in 1996 and is governed by a 12-member Board of Governors appointed by the VSO, which is a union of public sector employers, and a federation of civil servants representing the employees.[1589]

ABP is one of the five largest pension funds in the Netherlands, alongside the industry-wide pension funds for the medical, metal, construction and metal-and-electronic sectors (PFZE, PMT, BpfBOUW and PME respectively).[1590] Together, these funds account for approximately 60% of pension assets in the Netherlands.[1591]

The Dutch pension system features two regulatory bodies, as prescribed by Article 151 of the Pension Act: the Dutch Central Bank (DNB) and the Dutch Authority for the Financial Markets (AFM). Each of these bodies has a different role in the supervision of pension funds and insurers. The DNB is responsible for supervising pension providers and approving new ones; it is concerned with providers' financial positions and operational management, and the fitness and propriety of their board members (prudential and material supervision).[1592] The AFM is responsible for conduct

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[1582] Anderson, K. (2016), 'ESPN Thematic Report on Retirement regimes for workers in arduous or hazardous jobs – The Netherlands'. Available at https://ec.europa.eu/social/BlobServlet?docId=16219&langId=bg.

[1583] Van der Smitte, J. (2013). 'Short introduction to the pension system in the Netherlands', prepared for the Peer Review in Social Protection and Social Inclusion programme coordinated by ÖSB Consulting, the Institute for Employment Studies (IES) and Applica, and funded by the European Commission.

[1584] Ibid. Article 8 of the Wet verplichte deelneming in een bedrijfstakpensioenfonds 2000 and Article 23 Wet verplichte beroepspensioenregeling.

[1585] Wolzak, M. & De Groot, G. (2021), 'Ongekende golf verhogingen premies pensioenfondsen, *Financieel Dagblad,* https://fd.nl/economie-politiek/1363976/ongekende-golf-verhogingen-premies-pensioenfondsen, last accessed 10/02/2021.

[1586] Koolmees, W. (2020), 'Uitwerking Pensioenakkoord', 6 July 2020, available at: https://www.rijksoverheid.nl/onderwerpen/pensioen/documenten/kamerstukken/2020/07/06/uitwerking-pensioenakkoord, last accessed 10/02/2021.

[1587] DNB (2021), Register van pensioenfondsen, available at: https://www.dnb.nl/openbaar-register/register-van-pensioenfondsen/, last accessed 10/02/2021.

[1588] Mielonen, A. (2009), 'Pension contribution level in the Netherlands', *Finnish Centre for Pensions Reviews* 2009:10. Available at https://core.ac.uk/download/pdf/33464079.pdf.

[1589] Spera, G. (2004), Letter to the US Securities and Exchange Commission. Available at https://www.sec.gov/divisions/corpfin/cf-noaction/stichting050704.htm.

[1590] Šebo, J. and Voicu, S.D. (2019), *Country Case : The Netherlands*, 'Pension Savings: The Real Return 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Dutch-Country-Case.pdf.

[1591] Ibid.

[1592] Brouwer, M. (2020), 'A pension revolution in the Netherlands: a new contract for different times'. 9th July, 2020.

supervision, including ensuring that pension providers adhere to requirements about providers' disclosures to savers (behavioural supervision).[1593]

Tax and financial incentives

Employee contributions are tax deductible and the employers' contributions are not taxed as remuneration, while the benefits are taxed according to the wage and income tax; the so-called *omkeerregeling*. This facilitation is capped at a certain maximum pensionable income (gross wage). Pension contributions and benefits are tax facilitated by the Income Tax Act 2001 and Wage Tax Act 1969. Occupational pensions are merely regulated by the latter.[1594] Tax is not levied on the accumulation – including contributions and capital gains – of an occupational pension up to an accumulation limit expressed in terms of pensionable income each year.[1595,1596, 1597] Tax is levied only on pension income at the decumulation stage. This taxation rule is called the 'reversal rule' (*omkeerregel)*.[1598] This rule is capped at a certain maximum pensionable income.[1599] Above this cap, a net pension is possible, following the 'TEE'-rule (taxed-exempt-exempt).
Moreover, the rate of taxation for post-retirement income is lower than that for pre-retirement income since some premiums are not levied after retirement.[1600] This 'EET' (exempt-exempt-taxed) regime makes pension accumulation advantageous from a taxation perspective – hence the aforementioned limit on accumulation after which tax is levied.

Opt-out conditions

Employees in an industry in which the industry-wide pension scheme is mandatory cannot opt out. Employers can be exempted from an industry-wide scheme in certain circumstances, such as if the company has an existing pension scheme in place that is at least equivalent in its benefits to the industry-wide scheme.[1601] However, in most industry-wide schemes – even those where participation is mandatory for employees – participation is not possible for the self-employed.[1602]

Accumulation conditions

Occupational pensions are considered a supplement to the state pension (AOW) and the private pensions should top up the gap in savings; the tax rules are set up as 'compensating vessels'.[1603] Most schemes have a target total replacement rate (considering the AOW) of 70% of final pay or 75% of the average income.[1604]

An employee's annual contribution payments are not directly linked to that employee's pension accrual; all workers see the same accrual rate.

Decumulation conditions

At the beginning of 2012, roughly 94% of employees who were members of occupational schemes were members of defined benefit (DB) schemes, with the remainder being members of defined

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[1593] Federation of the Dutch Pension Funds, 'The Dutch pension system: highlights and characteristics'. Available at https://www.pensioenfederatie.nl/website/the-dutch-pension-system-highlights-and-characteristics.

[1594] Chapter IIB of the Wet op de loonbelasting 1964 (Act on wage tax), available at: https://wetten.overheid.nl/BWBR0002471/2021-02-05#HoofdstukII, last accessed 10/02/2021.

[1595] Following the rules regarding to accrual in Article 18a of the Wet op de loonbelasting 1964.

[1596] van der Smitte, J. (2013). 'Short introduction to the pension system in the Netherlands', prepared for the Peer Review in Social Protection and Social Inclusion programme coordinated by ÖSB Consulting, the Institute for Employment Studies (IES) and Applica, and funded by the European Commission.

[1597] Veldhoen, D. and Sixma, K. (2016), 'INSOL: Pensions & Insolvency In The Netherlands – A Survey'. Published 3rd February 2016. Available at https://www.mondaq.com/retirement-superannuation-pensions/463336/insol-pensions-insolvency-in-the-netherlands-a-survey.

[1598] Ibid.

[1599] For 2021 this is € 112.189, Article 18ga (1) Wet op de loonbelasting 1964 (Act on wage tax).

[1600] Ibid.

[1601] European Actuarial & Consulting Services (EURACS), 'The Netherlands - Pension Summary'. Available at https://euracs.eu/summaries/summary-the-netherlands/.

[1602] Karpowicz, I. (2019), 'Self-Employment and Support for The Dutch Pension Reform', *IMF Working Paper WP/19/64*. Available at https://www.imf.org/en/Publications/WP/Issues/2019/03/19/Self-Employment-and-Support-for-the-Dutch-Pension-Reform-46663.

[1603] Dietvorst, G.J.B. (2007), Proposal for a pension model with a compensating layer, *EC Tax Review,* 144.

[1604] OECD (2017), 'Pensions at a Glance 2017: Country Profiles – Netherlands'.

contribution (DC) schemes.[1605] DC schemes are, though, becoming more prominent amongst occupational pension schemes in the Netherlands.[1606] The planned reform in 2027 will see all schemes converted to DC.

More than 99% of active occupational pension scheme members in DB schemes are members of career-average schemes.[1607] There has been a shift towards such schemes and away from final-salary schemes. In 2000, the majority (59%) of active occupational pension scheme members were members of DB final-salary schemes.[1608] The career-average schemes typically feature conditional indexation whereby entitlements are increased in line with wage growth or inflation if the fund's financial position permits.[1609] The majority of schemes employ (conditional) wage indexation; a significant minority employ (conditional) price indexation.[1610]

Pension benefits used to be only paid out as life-long annuities, as it is obligated by the Pension Act and Wage Tax Act, but as of 2023 it will become possible to also draw a lump sum of maximum 10% of the accrued entitlements.[1611] The retirement age is not necessarily aligned with the statutory retirement age of the AOW. For tax purposes, there is a *pensioenrichtleeftijd* (pensionable age), which is for 2021 the age of 68.[1612]

Pension funds have to reduce accrual and benefits if the coverage ratio (the ratio of assets to pension liabilities) falls below 105%.[1613] In the transitional phase towards the new pension system as of 2027, this coverage ratio is adjusted to 90%.

Performance of underlying investment vehicles

The average annual real rate of return after charges for all Dutch pension funds between 2000 and 2018 was 2.21%.[1614]

Solidarity clauses

Solidarity is at the core of the Dutch pension system. All members of a scheme, regardless of age, income, gender, or employment type (e.g., full-time vs part-time), contribute the same percentage of their pensionable income to the scheme; this is widely portrayed as a display of solidarity.[1615]

Furthermore, the risks are shared through collective buffers and investments within a mandatory industry-wide scheme. Contributions are invested collectively such that costs are reduced for all members.[1616] Collective buffers are used to guarantee members' benefits.[1617] Occupational pension schemes do not feature credits for periods of unemployment.[1618]

Interactions with other pension schemes

[1605] OECD (2019), 'Netherlands', *OECD Pensions at a Glance 2019: Country Profiles*. Available at http://www.oecd.org/els/public-pensions/PAG2019-country-profile-Netherlands.pdf.

[1606] Ibid.

[1607] Ibid.

[1608] Ministerie van Sociale Zaken en Werkgelegenheid (2008), 'The old age pension system in the Netherlands'. Available at http://www.iopsweb.org/resources/48238337.pdf.

[1609] Federation of the Dutch Pension Funds, 'The Dutch pension system: highlights and characteristics'. Available at https://www.pensioenfederatie.nl/website/the-dutch-pension-system-highlights-and-characteristics.

[1610] OECD (2017), 'Pensions at a Glance 2017: Country Profiles – Netherlands'.

[1611] Wet Bedrag ineens, RVU en verlofsparen, available at: https://wetten.overheid.nl/BWBR0044727/2021-01-22, last accessed 10/02/2021.

[1612] Article 18a of the Wet op de loonbelasting 1969.

[1613] van der Smitte, J. (2013). 'Short introduction to the pension system in the Netherlands', prepared for the Peer Review in Social Protection and Social Inclusion programme coordinated by ÖSB Consulting, the Institute for Employment Studies (IES) and Applica, and funded by the European Commission; Regulated in Chapter 6 of the Pension Act.

[1614] Šebo, J. and Voicu, S.D. (2019), *Country Case : The Netherlands*, 'Pension Savings: The Real Return 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Dutch-Country-Case.pdf.

[1615] Federation of the Dutch Pension Funds, 'The Dutch pension system: highlights and characteristics'. Available at https://www.pensioenfederatie.nl/website/the-dutch-pension-system-highlights-and-characteristics.

[1616] DNB, 'The new pension system'. Available at https://www.dnb.nl/en/current-economic-issues/pensions/the-new-pension-system/.

[1617] Ibid.

[1618] OECD (2017), 'Pensions at a Glance 2017: Country Profiles – Netherlands'.

Occupational pension schemes are intended to supplement the AOW; together they generally achieve a replacement rate of around 70%.[1619]

Personal provisions can be used by the self-employed to supplement where occupational pension schemes are not available to them, and by employees to make up for periods in which they have not accrued occupational pension entitlements (because of a period of unemployment, for instance).[1620]

Future developments

A deal has been agreed for a new pension system that will be introduced in 2027.[1621, 1622] Amongst other things, the deal provides that all schemes will move to a collective DC (CDC) set-up. Any already-accrued liabilities held by Dutch pension funds are to be converted into the new form of contract by 2027.[1623, 1624] AXA Investment Management has said that the reforms will lead to a shift in Dutch pension funds' asset allocations from liability-driven investments to cash-flow-driven ones.[1625]

1619 Ministerie van Sociale Zaken en Werkgelegenheid (2008), 'The old age pension system in the Netherlands'. Available at http://www.iopsweb.org/resources/48238337.pdf.

1620 Ibid.

1621 Brouwer, M. (2020), 'A pension revolution in the Netherlands: a new contract for different times'. 9th July, 2020.

1622 DutchNews (2021), 'Pension reforms will take a year longer, due to complexity, minister says'. Published 11th May 2021. Available at https://www.dutchnews.nl/news/2021/05/pension-reforms-will-take-a-year-longer-due-to-complexity-minister-says/.

1623 CACEIS (2020), 'The new pension agreement: Improved Defined Contribution (DC) Schemes Act (Wvp)'. Published 15th September 2020. Available at https://www.caceis.kasbank.com/en/about-us/kas-insights/2020/the-new-pension-agreement-improved-defined-contribution-dc-schemes-act-wvp/.

1624 DutchNews (2021), 'Pension reforms will take a year longer, due to complexity, minister says'. Published 11th May 2021. Available at https://www.dutchnews.nl/news/2021/05/pension-reforms-will-take-a-year-longer-due-to-complexity-minister-says/.

1625 Brouwer, M. (2020), 'A pension revolution in the Netherlands: a new contract for different times'. 9th July, 2020.

12.11. New Zealand (KiwiSaver)

Basic characteristics

Type of scheme	**Mandatory access auto-enrolment**
Type of provider(s)	Private
Status of the scheme	Active
Year scheme became active	2007

Scope of the scheme

Employer size(s) covered	**All employers, unless they are in a limited liability partnership (LLP)**
Employer sector(s) covered	All sectors
Type of employees covered	Employees between the ages of 18 and 65 on a contract of more than 28 days (either permanent or part-time) or a casual agricultural worker for more than 3 months. Employees also need to be a New Zealand residence-class visa holder. Workers are also eligible if they're entitled to be in New Zealand indefinitely. If an employee is employed on a contract of less than 28 days but the contract goes beyond 28 days, they must also be auto-enrolled. State service employees who are serving overseas can also join KiwiSaver if they remain employed on New Zealand terms and conditions, are serving in a jurisdiction where offers of KiwiSaver scheme membership are lawful and meet the other eligibility requirements.
Coverage for self-employed persons?	Self-employed persons are not covered by automatic enrolment but can choose to join (as can those not in paid work).

Overview of New Zealand pension system

The New Zealand pension system consists of the public pension, occupational pensions (such as the KiwiSaver or Superannuation funds) and voluntary private pensions. The public pension is called the New Zealand Superannuation (NZ Super).[1626] NZ Super is paid fortnightly when an individual turns 65, even if they continue to work (as long as the individual has applied to receive it). To receive NZ Super, the recipient must be a legal resident of New Zealand and have lived in New Zealand for 10 years since age 20, with five of those years after age 50[1627]. The value of the payments depends on whether the individual is single, married or in a relationship akin to marriage; their living situation if they are single; whether their partner is included in their NZ Super payments or not and payments from any overseas benefit or pension[1628]. The minimum rate

[1626] New Zealand Superannuation and Retirement Income Act 2001, available at: https://www.legislation.govt.nz/act/public/2001/0084/132.0/DLM113924.html, last consulted on 05/02/2021.

[1627] Time spent overseas in certain countries and for certain reasons may be counted for New Zealand Superannuation.

[1628] NZ Super entitlements do not accrue on an annual basis either as a result of periods of employment or 'contributions'. The annual pension is unaffected by work status before the state pension age. Section 70 of the New Zealand Superannuation and Retirement Income Act 2001 requires the deduction from the before-tax NZ Super of amounts received by the pensioner from an equivalent overseas state pension scheme.

is $NZ19,358 per a year and the maximum is $NZ38,717. Benefits from the NZ Super are treated as taxable income. Due to concerns about the sustainability of the public pension system and declining coverage of voluntary occupational pension plans, the Government introduced KiwiSaver in 2007.1629 KiwiSaver is a subsidised, voluntary retirement savings scheme into which individuals are automatically enrolled.1630 The scheme continues to grow, and in 2018 approximately 80% of the working age population were members.1631

Transition mechanisms

Auto-enrolment into the KiwiSaver started in July 2007, with the introduction of the KiwiSaver Act 2006,[1632] and was implemented upon job change. Individuals already in employment, self-employed or unemployed could opt-in. Until May 2015 new joiners to the scheme received a $1,000 lump sum in their account.[1633]

Employer contributions came into effect in April 2008 starting at 1% of gross salary and increasing 1% per year until April 2011 when they reached 4%. The minimum contribution rate for employees was set at 4% of gross salary.[1634] Until April 2010, if employers agreed to contribute at least 2% towards the employees' contributions, employees' contributions were reduced from 4% to 2%. From April 2010, both employers and employees needed to contribute at least 3%, this rose to 4% from April 2011. The default contribution rate for members was reduced from 4% to 2% in April 2009 before increasing to 4% in April 2011 and dropping to 3% in April 2013[1635].

Since the beginning of the scheme, employees have had the option to contribute lump sums or change their contribution rate to 8%. Since 2020, two additional contribution rates of 6% and 10% were added.[1636]

Coverage rates associated with the scheme

In December 2020, there were 3,322,900 people of working age under 65 in New Zealand, of those individuals 2,897,081 were enrolled in the KiwiSaver[1637] program. Prior to KiwiSaver, occupational pension schemes covered 14.7% of the workforce down from 22.6% in 1990[1638].

Not all employees who meet the criteria are enrolled in KiwiSaver. Employers could[1639] apply for an exemption from automatically enrolling their employees into KiwiSaver if their existing superannuation plans meet certain criteria, such as providing benefits that are equal to or greater than the KiwiSaver minimum benefit requirements.[1640] If an employer does not participate in automatic enrolment but an employee wants to join KiwiSaver, employers are required to enrol the employee and make deductions from their pay.[1641] In this instance, any contributions the employer makes to the employer's own superannuation plan will count towards the employer contribution requirements under the KiwiSaver regime provided it was above the KiwiSaver minimum.

[1629] *Ibid.*

[1630] *Ibid.*

[1631] *Ibid.*

[1632] KiwiSaver Act 2006, available at: https://www.legislation.govt.nz/regulation/public/2006/0358/latest/whole.html, last consulted on 05/02/2021.

[1633] Financial Services Council (September 2018). 'A brief history of KiwiSaver', available at: https://www.fsc.org.nz/site/fsc1-dev/20180930_A%20Brief%20History%20of%20KiwiSaver%20-%20Financial%20Services%20Council.pdf

[1634] Section 64 of KiwiSaver Act 2006.

[1635] Treasury.govt.nz. 2007. *KiwiSaver Extended Questions & Answers*. [online] Available at: <https://www.treasury.govt.nz/publications/information-release/kiwisaver-extended-questions-answers-html#section-1> [Accessed 14 May 2021].

[1636] Section 64, Article 2 of KiwiSaver Regulations 2006.

[1637] Statistics New Zealand note that the working-age population is defined as the non-institutionalised, New Zealand resident population aged 15 years and over. It is derived from the estimated resident population aged 15 years and over by excluding people usually resident in institutions. The working-age population is based on 2018 Census data and is updated using early estimates of births, deaths, and net permanent and long-term migration. Figures are revised back 7 quarters, from September 2018 to incorporate official migration measures.

[1638] https://read.oecd-ilibrary.org/finance-and-investment/pensions-at-a-glance-2009_pension_glance-2009-en#page239

[1639] The 'exempt employer' provisions of the KiwiSaver Act 2006 were repealed on 1 December 2014.

[1640] Section 147 of KiwiSaver Act 2006.

[1641] Section 34 of KiwiSaver Act 2006.

Self-employed and unemployed individuals can also apply to be part of KiwiSaver by opting in through a KiwiSaver provider.[1642]

Contribution rates of the scheme

The minimum contribution rates for employees and employers are 3% of gross salary, this is the default contribution rate. Individuals can change their contribution rate to 4%, 6%, 8% or 10% of their annual gross salary but employers only have to match employee contributions up to a maximum of 3%.[1643] Additional lump-sum voluntary contributions can be made into KiwiSaver at any time,[1644] once a voluntary payment is made it is locked-in until the savings can be withdrawn.

In March 2020, the average contribution to KiwiSaver was $1,972 per annum[1645]. This average contribution rate includes employee, employer, voluntary and government contributions.

Contributions to KiwiSaver are primarily administered by the Inland Revenue through a deduction regime that is parallel to the Pay As You Earn (PAYE) income tax system. All contributions (employer and employees) are sent to the Inland Revenue which then passes them to each member's KiwiSaver Scheme. The KiwiSaver Act 2006 lays out the responsibilities of employers and the Inland Revenue[1646] and also the penalties on employers for failure to provide information or to incorrectly make contribution deductions.

An employee who chooses to join or who is auto-enrolled and does not opt out, must contribute for a minimum of one year. After that employees can suspend their contributions. Suspension periods can be up to 1 year at a time and can be renewed. Employees can also contribute voluntarily while on a suspension period. Non-employees, e.g. the self-employed, do not have the 1-year minimum requirement as they choose their own contribution level.

The administrative requirements are significantly simplified by the fact that a person may belong to only one KiwiSaver scheme at a time[1647]. The central 'clearing house' is a key aspect of KiwiSaver's administrative arrangements.

Providers

The following independent institutions provide KiwiSaver schemes:

- AMP
- Amanah KiwiSaver Limited
- ANZ Investments
- Aon New Zealand
- ASB Group Investments Ltd
- **BNZ**
- **Booster Investment Management**
- Civic Financial Services
- Craigs Investment Partners Superannuation Management Limited
- Fisher Funds Management Ltd
- Forsyth Barr Limited (the Summer KiwiSaver Scheme)
- Generate Investment Management Limited
- Implemented Investment Solutions Limited

[1642] Section 33 of KiwiSaver Act 2006.

[1643] Section 64 of KiwiSaver Act 2006.

[1644] Sections 73-74 of KiwiSaver Act 2006.

[1645] Fsc.org.nz. 2020. Spotlight on KiwiSaver. [online] Available at: <https://www.fsc.org.nz/site/fsc1/Financial%20Services%20Council%20-%20KiwiSaver%20Spotlight%20March%202020%20-%20Updated%2010%20June%202020.pdf> [Accessed 15 April 2021].

[1646] Part 3, KiwiSaver Act 2006.

[1647] Section 53, KiwiSaver Act 2006.

- **Kiwi Wealth Limited**
- Koura Wealth Limited
- Lifestages
- Medical Assurance Society NZ Limited
- Mercer (NZ) Limited
- Milford Funds Limited
- New Zealand Anglican Church Pension Fund
- New Zealand Funds Management Limited
- Nikko Asset Management New Zealand Limited
- Pathfinder Asset Management
- Pie Funds Management Limited (the Juno KiwiSaver Scheme)
- QuayStreetAsset Management New Zealand Limited
- SBS Bank
- Select Wealth Management Limited
- **Simplicity**
- **Smartshares Limited (the SuperLlife KiwiSaver Scheme)**
- **Westpac**

Those institutions in bold will be the providers of default funds starting December 1st 2021[1648]. Individuals who do not choose a KiwiSaver scheme will be allocated to one of the default providers and allocated to the default fund within the default provider's scheme. KiwiSaver default funds are conservative in their investment approach and must, by law, include at least 15 but no more than 25% allocation to growth assets. From December 2021, default funds will be balanced in their approach, allocating more monies in growth assets, have lower fees and prohibit investments in fossil fuel production and illegal weapons.

Default fund providers are chosen every 7 years by government.[1649] They are assessed on their investment capability[1650], corporate strength, administrative capability, track record and stability and provision of investment education to default members[1651].

Tax and financial incentives

Persons who contribute to a KiwiSaver account will benefit from government contributions, tax-free withdrawals (although tax is paid on contributions and investment earnings), withdrawals for the purchase of a first home and first home grants.[1652] Those contributing to KiwiSaver through their workplace will also benefit from employer contributions.[1653]

[1648] Internal Revenue service. 'KiwiSaver Providers', available at: https://www.ird.govt.nz/kiwisaver/kiwisaver-individuals/joining-kiwisaver/kiwisaver-providers

[1649] Section 132 of KiwiSaver Regulations 2006.

[1650] Treasury.govt.nz. 2019. Review Of The Kiwisaver Default Provider Arrangements. [online] Available at: <https://www.treasury.govt.nz/sites/default/files/2019-08/kiwisaver-default-consultation.pdf> [Accessed 21 January 2021].

[1651] Ministry of Business, Innovation and Employment (New Zealand) (2014), 'Existing default KiwiSaver provider arrangements', available at: https://www.mbie.govt.nz/business-and-employment/business/financial-markets-regulation/kiwisaver/existing-default-kiwisaver-provider-arrangements.

[1652] Article 8, Schedule 1, KiwiSaver rules, available at: https://www.legislation.govt.nz/act/public/2006/0040/latest/DLM379487.html?search=sw_096be8ed81a4aa4f_home_25_se&p=1#DLM379497. Last consulted on 05/02/2021.

[1653] Section 101A, KiwiSaver Regulations 2006.

Each year, the government will contribute 50 cents on every dollar for contributions up to $1042.86, giving a maximum subsidy of $521.43 a year[1654]. Individuals are eligible for the government contribution if they are over 18 and either:

- Live mainly in New Zealand
- Are a government employee serving outside New Zealand
- Are working overseas as a volunteer, for token payment, or for a charitable organisation named in the Student Loan Act regulations, and the work meets one or more of the requirements set out in the Student Loan Scheme Act 2011.

Eligibility for the government contribution stops when the participant turns 65. Those who joined the KiwiSaver before 1 July 2019 can get the government contribution up until they turn 65, or until they have been a KiwiSaver member for 5 years, whichever is the later. Those who reach the age of eligibility to stop contributing part-way through the year receive a government contribution based on how many days in the year they've been eligible for the government contribution.

In April 2009 government fee subsidies of $40 per annum were removed. Additionally, employer tax credits used to offset the cost of compulsory employer contributions were also removed. In April 2013, employer contributions became subject to the Employer Superannuation Contribution Tax[1655]. Government contributions were reduced from $1,042.86 to $523.41 in 2011.

Withdrawals from the KiwiSaver are tax-free but contributions and investment returns are subject to tax. Contributions are not tax deductible, employees must still pay tax on their full salary e.g., a person who earns $100 and contributes 8% to their KiwiSaver will still pay tax on the full $100. Similarly, employers must deduct tax on the employer's contributions. Some employers may establish an agreement with the employee to treat some or all of the contribution as part of their total remuneration.[1656] Investment returns are taxed at 10.5%, 17.5% or 28%[1657] depending on the member's taxable income level and whether the scheme has portfolio investment entity (PIE) status. The 10.5%, 17.5% and 28% rates are concessionary to the standard income tax rates.

Those who have been in a KiwiSaver or an equivalent eligible scheme for 3 or more years may be able to take out most of their savings to purchase a first home.[1658] Withdrawals include individual, employer and government contributions, interest earned and fee subsidies. At least $1,000 must be left in the account and funds which have been transferred from an Australian Complying Superannuation scheme cannot be withdrawn.[1659] If funds have been transferred to KiwiSaver from a UK pension scheme there may be UK tax implications if they are withdrawn.

The government also offers a First Home Grant for those who have been contributing to a KiwiSaver scheme for at least 3 years. The grant can be up to $10,000 and those who have owned a home before may still qualify.

Opt-out conditions

Employees who have been enrolled by auto-enrolment default into a KiwiSaver scheme can opt out of the KiwiSaver between the end of week 2 and week 8 of starting work.[1660] The opt out period for employees may be extended from 8 weeks to a maximum of 3 months[1661] after the first contribution has been deducted if:

[1654] The subsidy also applies to the self-employed and any other contributor who can choose to contribute any amount either as a lump sum or as a regular amount. The maximum subsidy applies only to contributions of up to $1,042.86 a year.

[1655] The Employer Superannuation Contribution Tax was a re-naming of the previous 'Employer Superannuation Contribution Withholding Tax' and wasn't a new tax. ESCWT (now ESCT) is a tax applied to the employer's contributions that treat them as though they were income in the employee' hands

[1656] Section 67, KiwiSaver Regulations 2006.

[1657] The top rate of 28% is a concession that is a feature of the 'Portfolio Investment Entity' (PIE) tax treatment of collective investment vehicles.

[1658] Clause 8, Schedule 1, KiwiSaver Act 2006.

[1659] Clause 8(4), Schedule 1, KiwiSaver Act 2006.

[1660] Section 16 of KiwiSaver Act 2006.

[1661] Section 18 of KiwiSaver Act 2006.

- They did not receive a KiwiSaver employee information pack - KS3 within 7 days of starting their job;
- They did not receive a product disclosure statement for the default KiwiSaver scheme to which they were allocated;
- They did not receive a product disclosure statement from their employer for the employer's chosen KiwiSaver scheme;
- Events outside their control meant they could not deliver their opt out notice on time;
- They were automatically enrolled in error.

If the employees are under 19 years of age, they may be able to opt out after the initial opt out period if:[1662]

- Their employer incorrectly enrolled them before they turned 18;
- They were incorrectly enrolled and didn't have their guardians' consent to join KiwiSaver;
- They are under 16 and their guardian provides consent.

They may not opt out if:

- They contacted a provider and choose their own KiwiSaver scheme;
- Their guardians signed them up for KiwiSaver or gave consent for them to join;
- They opted in directly after they turned 18.

If an individual joins directly with a provider, they will not be able to opt out but may be able to take a savings suspension.

Accumulation conditions

Time commitment

Individuals will be automatically enrolled in a KiwiSaver scheme by their employer from the age of 18. Those under 18 can join KiwiSaver but must actively enrol through a scheme provider with the permission of their legal guardians.[1663] Participants in KiwiSaver can contribute until the age of 65. Funds can be withdrawn early in the case of purchasing a first home, moving overseas, financial hardship[1664] or serious illness.[1665]

To withdraw funds for the purchase of a first home, the contributor must be a member for at least 3 years. Personal, employer and government contributions can be withdrawn as well as any interest earned and fee subsidies. At least $1,000 must be left in the account.[1666]

In the case of financial hardship, participants may be able to withdraw some or all of their personal and employer contributions to alleviate the financial difficulties.[1667]

Those who incur serious health issues can withdraw all or some of their KiwiSaver savings. Serious health issues can be either:

- An illness, injury or disability that permanently affects the ability to work or poses a risk of death;[1668]

[1662] Section 59A-59CB, KiwiSaver Act 2006.

[1663] Section 35 of KiwiSaver Act 2006.

[1664] Financial hardship includes an inability to meet minimum living expenses; inability to pay the mortgage for the home in which you reside, and the provider is seeking to reinforce the mortgage; the need to modify your home to meet your special needs or those of a dependent family member; payment for medical treatment for yourself or a dependent family member ; serious illness ; funeral expenses of a dependent family member

[1665] Cluse 12, Schedule 1, KiwiSaver Act 2006.

[1666] Clause 8, Schedule 1, KiwiSaver Act 2006.

[1667] Clause 10, Schedule 1, KiwiSaver Act 2006.

[1668] Clause 12, Schedule 1, KiwiSaver Act 2006.

- A life-shortening congenital condition that lowers life expectancy below the age of eligibility for New Zealand superannuation (currently 65).[1669]

Withdrawals can include personal, employer and government contributions, the $1,000 kickstart (if they received it), fee subsidies and any interest earned. Those with life shortening conditions will no longer receive employer or government contributions.

Persons moving to Australia permanently have the option to transfer their KiwiSaver funds to an Australian superannuation scheme. Persons who have lived overseas for one year in any country other than Australia can withdraw their contributions, employer's contributions, the $1,000 kickstart (if they received it), fee subsidies and interest earned. Government contributions may not be withdrawn and are refunded to the government.

KiwiSaver funds may also be accessed in the case of bankruptcy or divorce[1670]. Additionally, funds which have been transferred from a foreign superannuation fund may be withdrawn to pay foreign tax or foreign student loans.

Participants can apply for a savings suspension after 12 months of membership. Those experiencing financial hardship can apply for a savings suspension prior to 12 months of membership.[1671]

Investment strategy

KiwiSaver scheme members can choose their own fund to invest in or alternatively let their employer or the government choose one for them. KiwiSaver schemes are run by providers who typically have a number of investment fund options to choose from. Some providers let members invest in more than one fund at a time. Individuals can transfer between schemes, to transfer the individual has to join a new provider and all other administrative work is carried out by the provider and Inland Revenue within a legislative time frame.

While there are hundreds of KiwiSaver funds, they are generally grouped into five different types:

- Defensive
- Conservative
- Balanced
- Growth
- Aggressive

Funds can hold a mix of assets and are grouped on their exposure to growth assets (shares, commercial property, and derivatives). Participants can hold multiple funds, if the scheme provider allows it, but can only invest with one provider's scheme. A KiwiSaver member can belong to only one KiwiSaver scheme. While most of the fund options fall into the 5 main categories, several schemes offer sector funds, multiple 'balanced' funds and a few schemes let individuals choose individual shares.

Decumulation conditions

Individuals are eligible to withdraw all KiwiSaver funds when they reach the state pension age (currently 65) but are not required to.[1672] Those who keep working after the age of 65 can choose to stop paying into their KiwiSaver. Government contributions will stop when the participant turns 65 and employer contributions may stop depending on the contract of employment.

Those who joined before 1 July 2019 and were aged between 60-64 were locked-in to KiwiSaver for 5 years. These individuals now have the option to withdraw funds at 65 or withdraw funds after the full 5-year term. Those who opt out of the 5-year lock in period will stop getting employer and

[1669] Clause 12B, Schedule 1, KiwiSaver Act 2006.

[1670] KiwiSaver funds are included as part of relationship property even if it is in a single person's name. When there is a division of assets following a divorce KiwiSavers are included in that pool of assets.

[1671] Section 102 of KiwiSaver Act 2006.

[1672] Clause 4, Schedule 1, KiwiSaver Act 2006.

government contributions. If they choose to stay in for the 5 year term and are still working, they will continue to receive government and employer contributions for the balance of the term.

Currently, there is not a coordinated approach to decumulation. Decumulation can be an active or passive decision depending on the scheme. Individuals can have an active approach to decumulation by taking their money out in a lump sum. Alternatively, individuals can adopt a passive approach in which they keep their existing KiwiSaver and draw upon it when needed. There is no annuity market in New Zealand.

Performance of underlying investment vehicles

The annual returns up to March 2020 of the average KiwiSaver by fund type is shown below.

Table 23 Average performance of available fund types

Fund	2020	2019	2018	2017	2016
Average aggressive fund	-6.44%	10.28%	6.98%	11.16%	5.03%
Average growth fund	-3.64%	6.81%	7.79%	8.77%	2.98%
Average balanced fund	-1.48%	5.66%	5.28%	6.25%	3.30%
Average conservative fund	0.70%	4.47%	3.77%	3.92%	3.35%
Average defensive fund	1.60%	2.32%	2.03%	1.53%	2.58%

Source: Sorted[1673]

Note: The returns are net of fees and tax at 28%.

Solidarity clauses

None.

Interactions with other pension schemes

The evaluation of KiwiSaver published in 2015 by the Inland Revenue Department reported that an appreciable proportion (18% in 2010 and 15% in 2014) of KiwiSaver contributions would have been saved or invested for retirement in other ways had KiwiSaver not existed.[1674]

Future developments

The latest review of default fund providers is currently underway and, as part of the review, the investment strategy may be changed to a 'balanced' investment strategy (greater share of growth assets).

[1673] See: https://sorted.org.nz/

[1674] Inland Revenue Department (New Zealand) (2015), 'KiwiSaver evaluation: Final summary report'.

12.12. Poland (Employee Capital Plans (PPKs))

Basic characteristics

Type of scheme	**Mandatory access auto-enrolment**
Type of provider(s)	Private with legislative auto-enrolment
Status of the scheme	Active
Year scheme became active	2019 (with phased introduction)

Scope of the scheme

Employer size(s) covered	**All employer sizes are covered**
Employer sector(s) covered	All sectors (including public)
Type of employees covered	Auto-enrolment applies to employees aged 18 – 55. Employees aged 56-70 can opt in. Those aged 70 and over cannot participate. The scheme covers full-time and part-time employees who pay contributions to Social Insurance Institution.[1675]
Coverage for self-employed persons?	The self-employed are not included in this scheme.[1676]

Overview of the Polish pension system

The public pension in Poland consists of a pay-as-you-go system which is managed by the Social Security Institution. The public scheme is earnings-related, however, there is a guaranteed minimum old-age pension of PLN 1,100 (approximately €241.7).[1677] Contribution rates are 19.52% of gross salary. In 1999 a compulsory scheme was introduced where 2.92% of gross salary was redirected to a privately managed pension fund.[1678] However, between 2011 -2014 these funds were shifted back into the pay-as-you-go system, and in 2014 it became voluntary to redirect a portion of contributions to privately-administered open pension funds.[1679, 1680, 1681]

Employee Capital Plans (PPKs) are the subject of this fiche and are a mandatory access provision occupational auto-enrolment scheme. Voluntary occupational plans called PPEs and voluntary personal plans called IZEs also exist.

[1675] Goschorski (2019). *Employee Capital Plans (Polish acronym: PPK) – what is it all about?* RSM. Available at: https://www.rsmpoland.pl/en/blog/audit-accountancy/employee-capital-plans-polish-acronym-ppk-what-it-all-about

[1676] MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[1677] OECD (2019) 'Poland', *Pensions at a glance 2019: Country profiles - Poland.* Available at: https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Poland.pdf

[1678] OECD (2019), 'How does Poland compare?', *Pensions at a Glance 2019*. Available at https://www.oecd.org/poland/PAG2019-POL.pdf.; European Commission and the Social Protection Committee (2018), 'Pension Adequacy Report 2018', Vol.2.

[1679] Ibid.

[1680] Ibid. and Cohen, N. and Cienski, J. (2014), 'Poland pension reform reversal highlights public disillusion', *Financial Times*. Published 5th February 2014.

[1681] Ibid.

Transition mechanisms

The PPK[1682] scheme has been introduced in four stages following the passage of the associated law on 19th November 2018:[1683]

- The first phase covered the 4,000 largest employers, which had more than 250 employees. This phase finished on 12th November 2019.[1684]
- The second phase involved those companies employing between 50 and 249 workers.[1685] It was extended to November 2020 in response to the COVID-19 pandemic.[1686]
- The third phase covered companies employing between 20 and 49 workers.[1687] It concluded in November 2020.[1688]
- The fourth and final phase concerns the public sector and the remaining private employers (those employing fewer than 20 workers).[1689] It began in January 2021 and has a final deadline on 10th May 2021, except for employers in the 'public finance sector', for whom the deadline is 10th April 2021.[1690] The Sejm, the lower house of Poland's legislature, voted against a motion to delay the rollout of PPKs in the public sector by a year.[1691]

Coverage rates associated with the scheme

Prior to the scheme's introduction, participation amongst those eligible was expected to be 75%.[1692]

Contribution rates of the scheme

Most employees are required to contribute 2.0% of pay with option to contribute up to an additional 2.0%.[1693] Those earning up to 1.2 times the minimum wage are only required to contribute 0.5% of their pay.[1694]

Employers are required to contribute 1.5% and have the option to contribute up to an additional 2.5%.[1695] Employers are permitted to vary this additional contribution according to time served or in line with a collective labour agreement or the company's remuneration rules.[1696; 1697]

For each individual, the state makes a one-time 'welcome' contribution of PLN 250 and then annual contributions of PLN 240.[1698, 1699]

[1682] The Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*), available at: https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20180002215/U/D20182215Lj.pdf.

[1683] See https://www.mojeppk.pl/dla-pracownika.html.

[1684] Article 134(1) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1685] Article 134(2), The Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1686] See https://www.wiatr.wroc.pl/en/2020/10/20/the-deadline-is-approaching-for-the-implementation-of-the-employee-capital-plans-ppk-in-small-and-medium-sized-companies/.

[1687] Article 134(3) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1688] See https://www.mojeppk.pl/dla-pracownika.html.

[1689] Article 134(4) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1690] MojePPK (2021), https://www.mojeppk.pl/dla-pracownika.html.

[1691] MojePPK available at: https://www.mojeppk.pl/aktualnosci/PPK-w-sektorze-publicznym-ju--od-2021-r..html (in Polish).

[1692] Instytut Emerytalny and Wojewódka i Wspólnicy (2019), 'Levels of participation in Employee Capital Plans'. Available at http://www.instytutemerytalny.pl/wp-content/uploads/2017/08/Level-of-participation-in-PPK-_November-2019.pdf.

[1693] Article 27 of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1694] *Ibid*.

[1695] Article 26 of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1696] *Ibid*.

[1697] PwC Poland (2018), 'Employee's Capital Pension Scheme – the bill was published in the Journal of Laws'. Available at https://www.pwc.pl/en/articles/tax-news/2018/2018-12-05-ppk-published-in-journal-of-laws.html.

[1698] Articles 31 and 32 of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1699] MojePPK.pl, 'What's good to know about the Employee Capital Plans (PPK)'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

Providers

As of 14th May 2021, there were 19 licensed providers.[1700] Employers choose the provider for all of their employees in agreement with trade unions. Individual employees cannot use a provider different from the one selected by their employer. If an employer does not conclude an agreement with a provider in the required time, the Polish Development Fund (PFR) will contact the employer either to make an arrangement with the PFR's TFI or to obtain information that the employer is concluding an agreement with another provider.[1701]

Tax and financial incentives

A 'TEE' (taxed-exempt-exempt) regime applies.[1702] Pension income is exempted from taxation. Employees pay income tax calculated on the value of employer contributions.[1703] Participants are exempted from capital gains tax on investment returns if, and only if, they take at least 75% of their assets in at least 120 monthly withdrawals (and the rest as a lump-sum).[1704] For employers, contributions and other expenses associated with operating a PPK scheme are tax-deductible.[1705]

Employer and state contributions (see above) and the ability to make early withdrawals (see below) are non-tax financial incentives for participating in PPKs.

Opt-out conditions

An employee may opt out at any point but must provide a written declaration when doing so.[1706] Contributions to the scheme start immediately after enrolment.[1707] Employees are automatically re-enrolled every four years.[1708]

Employers must participate unless they had already set up an employee pension programme (PPE) for their employees that has at least 25% coverage in their workforce and an employer contribution rate of at least 3.5%.[1709; 1710]

Accumulation conditions

Target date funds are the default in the PPK system; providers must provide an 'appropriate number' of target date funds.[1711] Such funds pursue a life cycle investment strategy, whereby the riskiness of the assets held is reduced in the lead-up to retirement (since the closer the individual is to retirement, the less time there is for any losses to be 'recouped' by subsequent gains).[1712]

[1700] See https://www.mojeppk.pl/lista-instytucji-finansowych.html.

[1701] Art. 7-8 of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*) ; also: MojePPK.pl, 'What's good to know about the Employee Capital Plans (PPK)'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[1702] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[1703] P. 8-13 of the Employee Capital Plans in Practice. Taxes., 2020 (*Pracownicze Plany Kapitalowe w Praktyce. Podatki*), available at: https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PPK_w_praktyce-Podatki_v1.2_20032020.pdf.

[1704] MojePPK.pl, 'What's good to know about the Employee Capital Plans (PPK)'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[1705] PwC Poland (2018), 'Employee's Capital Pension Scheme – the bill was published in the Journal of Laws'. Available at https://www.pwc.pl/en/articles/tax-news/2018/2018-12-05-ppk-published-in-journal-of-laws.html.

[1706] Article 23(2) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1707] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[1708] Article 23(5) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1709] Article 133(1) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1710] MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[1711] MojePPK, 'Financial Institutions'. Available at https://www.mojeppk.pl/instytucje-finansowe.html.

[1712] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

The asset management fee that may be charged is capped at 0.5% of assets under management (AUM) per year,[1713] and only AUM up to 15% of total (i.e. system-wide) PPK assets can be included in this calculation.[1714; 1715] When the rate of return is positive and above a minimum level specified in secondary legislation, a further performance fee of up to 0.1% of AUM may be charged.[1716] In the first quarter of 2020, the average fee charged by providers was 0.36% of AUM.[1717]

Decumulation conditions

The retirement age for the scheme is 60.[1718] The default decumulation option is that at least 75% of savings from the scheme is withdrawn in at least 120 monthly payments and that the remainder (up to 25%) is withdrawn as a lump sum.[1719; 1720; 1721]

Early withdrawals of up to 25% of total accumulated assets are permitted in the case of severe illness of the employee, their spouse or their child.[1722] Early withdrawals of up to 100% of total accumulated assets are also permitted to facilitate the purchase of real estate, although in this case the withdrawal must be 'repaid' within 15 years.[1723; 1724] Before the age of 60, one can withdraw all of one's funds, but capital gains tax, funds from the state subsidies and funds from 30% of employer contributions will be deducted.[1725]

Performance of underlying investment vehicles

In 2020, PPK target date pension funds achieved a return of approximately 13.0%.[1726]

Solidarity clauses

None.

Interactions with other pension schemes

Contribution-neutral open pension funds (OFEs) are being dismantled. Trust in private pensions was undermined when in 2014 the government at the time transferred around half of the assets in OFEs to the PAYG public pension system.[1727] In an attempt to foster trust in the PPK system, social partners were involved in its design and communications make clear that the funds in the system are private.[1728]

As described above, employers are not obliged to enrol their employees into a PPK plan if they already have in operation an employee pension programme (PPE) for their employees that has at

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[1713] Article 50(3) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1714] Article 40(1) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1715] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[1716] Article 48(3) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1717] MojePPK, 'Kalkulator PPK (PPK calculator)', available at https://www.mojeppk.pl/kalkulator.html.

[1718] Article 22(3) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1719] Article 99(1)(2) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1720] Article 99(1)(1) of the Employee Capital Plans, 2018, (*Pracowniczych planach kapitałowych*).

[1721] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[1722] MojePPK, 'Employee Capital Plans', slideshow, available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/Employee-Capital-Plans---slideshow.pdf.

[1723] Article 98 of the Employee Capital Plan, 2018, (*Pracowniczych planach kapitałowych*).

[1724] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[1725] MojePPK, 'Employee Capital Plans', slideshow, available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/Employee-Capital-Plans---slideshow.pdf.

[1726] Instytut Emerytalny (2021), 'Summary of the PPK results at the end of 2020'. Available at http://www.instytutemerytalny.pl/wp-content/uploads/2021/01/Podsumowanie-wynik%C3%B3w-PPK-na-koniec-2020_-05012020.pdf.

[1727] OECD (2019), 'How does Poland compare?', Pensions at a Glance 2019. Available at https://www.oecd.org/poland/PAG2019-POL.pdf

[1728] See, for instance, MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

least 25% coverage in their workforce and an employer contribution rate of at least 3.5%.[1729] PPEs are a complementary, voluntary structure.

Future developments

At the time of writing, the roll-out of PPKs had finished only very recently. Some predict that participation is likely to grow as people observe the benefits of participation.[1730] OFEs are likely to be liquidated in 2021.[1731]

[1729] MojePPK, 'What's good to know about the Employee Capital Plans (PPK) – Information for employees'. Available at https://www.mojeppk.pl/pliki/repozytorium-plikow/materialy-do-pobrania/pdf/PFR-PPK-Poradnik-dla-pracownika-ENG.pdf.

[1730] Krzykowski, K. (2021), 'PPK – how many people have signed up? Is it worth it? What are the benefits? Summary of the Pension Institute', *Polish News*. Available at https://www.polishnews.co.uk/ppk-how-many-people-have-signed-up-is-it-worth-it-what-are-the-benefits-summary-of-the-pension-institute/.

[1731] Warsaw Business Journal (2020), 'OFEs with disastrous results for last three years'. Available at https://wbj.pl/ofes-with-disastrous-results-for-last-three-years/post/128733.

12.13. Romania (Mandatory private pillar)

Basic characteristics

Type of scheme	**Contribution-neutral compulsory (opting out allowed in 2019)**
Type of provider(s)	Private
Status of the scheme	Active
Year the scheme became active	2008 (the year in which contributions began)

Scope of the scheme

Employer size(s) covered	**All**
Employer sector(s) covered	All, although those in the construction sector will be exempted for a decade between 1st January 2019 and end-2028[1732]
Type of employees covered	All that pay social security contributions and are aged under 35. Those aged 35 to 45 may participate on a voluntary basis.[1733]
Coverage for self-employed persons?	Yes

Overview of Romanian pension system

Romania's pension system consists of the public pension, a contribution-neutral compulsory scheme that is the subject of this fiche (hereafter referred to as the 'mandatory private pillar') and voluntary occupational and personal pensions.

Public pensions in Romania are funded on a pay-as-you-go (PAYG) basis. Nearly 90% of funding for them comes from social security contributions by employers and employees.[1734] Contributions are administered by the CNPP, the same body that handles contributions to the contribution-neutral compulsory scheme. Entitlements can be drawn upon from the retirement age (currently 65 for men and 63 for women) if at least 15 years of contributions have been accrued; they depend *inter alia* on the individual's mean salary.[1735]

In 2008 the mandatory private pillar scheme was added to the Romanian pension system and became mandatory for all employees under the age of 35.[1736] Employees are required to contribute 25% of their gross salaries and employers 4% of payroll to the State's social security.[1737] Of that amount 3.75% redirected to the mandatory occupational scheme.

[1732] Article 30(3), Law no. 411/2004 on Privately Administered Pension Funds, 2007 (*Lege privind fondurile de pensii administrate privat*), available at: http://legislatie.just.ro/Public/DetaliiDocument/83682; Urse, D. (2019), European Social Policy Network Flash Report 2019/36 '*Tax breaks for the construction sector in Romania: higher net wages, but lower pension rights*', available at: https://ec.europa.eu/social/BlobServlet?docId=21477&langId=en.

[1733] Article 30, Law no. 411/2004 on Privately Administered Pension Funds, 2007 (*Lege privind fondurile de pensii administrate privat*), available at: http://legislatie.just.ro/Public/DetaliiDocument/83682.

[1734] Šebo,J. and Voicu, Ş. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1735] Article 41 of Law no. 19/2000 on the public pension system and other social security rights, 2000 (*Lege privind sistemul public de pensii şi alte drepturi de asigurări sociale*).

[1736] Ibid.

[1737] Ibid.

Contributions to the voluntary personal pillar of Romania's pension system began in 2007,[1738] shortly before the contribution-neutral compulsory scheme was introduced. Fund administrators may manage more than one voluntary fund.[1739] Similar, though slightly less strict, rules on investment strategies apply for funds in this pillar as for funds in the contribution-neutral compulsory scheme.[1740] An 'EET' tax regime also applies to this pillar. Participation in this pillar is much lower than in the public pension and the contribution-neutral compulsory scheme: at the end of 2019, there were approximately 535,000 participants in the voluntary personal pillar, and around €0.52 billion of AUM associated with voluntary personal pensions[1741] (the corresponding figures for the contribution-neutral compulsory pillar in 2019 were around 7.27 million and €10.2 billion).[1742]

Voluntary occupational pensions were introduced in Romania in 2020, following legislation that transposed the IORP II directive into Romanian law.[1743]

Transition mechanisms

The introduction of the contribution-neutral compulsory scheme in Romania involved three phases:[1744]

- Between January and July of 2007, pension fund administrators were authorised;
- Between 17th September 2007 and 17th January 2008, the first participants chose their pension funds; and,
- From the 20th May 2008, contributions began to be collected.[1745]

Furthermore, the percentage of gross income that was redirected from participants' social security contributions into their private pension account was gradually increased after the scheme's introduction (see below).

Coverage rates associated with the scheme

As of 2020, approximately 7.46 million people were participating in the scheme;[1746] this was equivalent to more than 80% of Romania's labour force in that year.[1747]

It became possible to opt out from the scheme in December 2018[1748] before the scheme was made compulsory again (for those under 35) in January 2020.[1749] The impact on participation was very

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[1738] Law no. 204/2006 on Voluntary Pensions, 2006, (*Lege privind pensiile facultative*), available at: https://asfromania.ro/files/ENGLEZA/legislation/pensions/law-204_f7n8.pdf.

[1739] Article 17(3) of Law no. 204/2006 on Voluntary Pensions, 2006, (*Lege privind pensiile facultative*).

[1740] Šebo,J. and Voicu, Ș. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1741] ASF Romania, 'Evolutie indicatori - Pilon III'. Available at https://asfromania.ro/ro/a/1905/linkuri-date-statistice.

[1742] Šebo,J. and Voicu, Ș. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1743] Mercer (2020), 'Romania introduces optional fourth pillar occupational pensions'. Available at https://www.mercer.com/content/dam/mercer/attachments/global/law-and-policy/gl-2020-romania-introduces-optional-fourth-pillar-occupational-pensions.pdf.

[1744] Šebo,J. and Voicu, Ș. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1745] Law no. 411/2004 on Privately Administered Pension Funds, 2007 (*Lege privind fondurile de pensii administrate privat*).

[1746] Better Finance (2020) 'Country case: Romania', *Pension Savings: The real return*. Available at: https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Romania.pdf.

[1747] World Bank, 'Labor force, total – Romania'. Available at https://data.worldbank.org/indicator/SL.TLF.TOTL.IN?locations=RO.

[1748] Kolostyak, S. (2019), 'EU commission says new Romanian pension law poses risk to sustainability', *European Pensions*. Published 14th June 2019. Available at https://www.europeanpensions.net/ep/EU-commission-says-new-Romanian-pension-law-poses-risk-top-sustainability.php.

[1749] European Commission (2020), 'Country Report Romania 2020', *Commission Staff Working Document SWD(2020) 522 final*. Available at https://ec.europa.eu/info/sites/default/files/2020-european_semester_country-report-romania_en.pdf.

small: only around 700 people of the more than 7 million participants opted out (ceased contributing) during this period.[1750]

Contribution rates of the scheme

This scheme involves a reallocation of the participating individual's contribution to the public pension scheme into a private individual pension account.[1751] Individuals in Romania contribute 25% of their gross salary in social security contributions;[1752] participation in the contribution-neutral compulsory scheme sees 3.75% of gross salary out of this be redirected into a private pension account.[1753] As such, the scheme does not involve additional contributions on top of statutory contributions to the public pension system. Participants cannot vary their contribution rate at their discretion.[1754]

When the scheme was introduced in 2008, just 2% of gross salary was reallocated from social insurance contributions to a private pension account.[1755] It was planned that this percentage would increase by 0.5 percentage points per year over eight years until reaching 6% in 2017.[1756] However, contributions would never reach 6% - they were set to a peak of 5.1% of gross salary in 2017 and were then cut to 3.75% in 2018.[1757]

ANAF, the National Agency for Fiscal Administration, is responsible for collecting contributions.[1758] The CNPP, the National House of Public Pensions, is responsible for directing contributions to the mandatory pension funds.[1759]

Providers

Funds in Romania's contribution-neutral compulsory scheme are managed by pension management companies (PMCs), each of which may only manage one fund within the scheme.[1760]

Funds in the mandatory private pillar require specific authorisation from the Financial Supervisory Authority (ASF),[1761] which is the body responsible for regulation and supervision of the pension market in Romania.[1762] It is required that the PMC is authorised as a pension fund admininstrator by the ASF or another competent authority in the EU or EEC.[1763] The ASF was established in 2013, taking over the responsibility of the National Securities Commission (CNVM), the Insurance

[1750] Table 14 of ASF Romania (2021), 'FONDURI DE PENSII ADMINISTRATE PRIVAT - DATE STATISTICE ((Mandatory Private Pension Funds - Statistical Data)'. March 2021. Available at https://asfromania.ro/csspp/uploads/files/en-date-stat-site-pii-mar-2021_2jsj.xlsx.

[1751] Euraxess Romania, 'Pensions and other social security rights'. Available at https://www.euraxess.gov.ro/romania/information-assistance/pensions-and-other-social-security-rights.

[1752] KPMG (2020), 'Romania - Other taxes and levies'. Available at https://home.kpmg/xx/en/home/insights/2011/12/romania-other-taxes-levies.html.

[1753] Article 43(3) of Law no. 411/2004 on Privately Administered Pension Funds, 2007 (*Lege privind fondurile de pensii administrate privat*).

[1754] Šebo,J. and Voicu, Ș. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1755] Nuță, A-C. (2018), 'Romania's pension system explained'. Available at https://emerging-europe.com/voices/romanias-pension-system-explained/.

[1756] Romanian Ministry of Finance, 'The Pension System in Romania'. Available at https://www.cef-see.org/pension_reform/Romania.pdf.

[1757] Šebo,J. and Voicu, Ș. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1758] World Bank (2008), 'Romania : Pensions Policy Note'. 11th November 2008. Available at http://documents.worldbank.org/curated/en/568821468095643425/730540WP0P11460C0disclosed050100120.doc.

[1759] Article 4.2 read in conjunction with Article 52 of Law no. 263/2010 on the Unitary Public Pension System (*Lege privind sistemul unitar de pensii publice*), available at: http://legislatie.just.ro/Public/DetaliiDocument/124530.

[1760] Šebo,J. and Voicu, Ș. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1761] Article 10 of Law no. 411/2004 on Privately Administered Pension Funds, 2007 (*Lege privind fondurile de pensii administrate privat*).

[1762] Law No. 113/2013 for the approval of Government Emergency Ordinance No. 93/2012 on the establishment, organization and operation of the Financial Supervisory Authority, 2013 (*Lege pentru aprobarea Ordonanţei de urgenţă a Guvernului nr. 93/2012 privind înfiinţarea, organizarea şi funcţionarea Autorităţii de Supraveghere Financiară*), available at: http://legislatie.just.ro/Public/DetaliiDocumentAfis/147241.

[1763] ASF Romania, 'Condiții de Autorizare'. Available at https://www.asfromania.ro/en/a/1659/condi%C8%9Bii-de-autorizare.

Supervisory Commission (CSA) and the Private Pensions System Supervisory Commission (CSSPP).[1764, 1765] The CSSPP had been established in 2005.[1766]

As of the end of 2018, there were seven active authorised PMCs; this is substantially lower than the 18 authorised PMCs that were present when the scheme was introduced.[1767] This reflects consolidation in the market; the funds of the two largest PMCs serve nearly half of participants and account for a majority of assets under management (AUM) in the scheme.[1768]

One of the conditions of authorisation by the ASF is that the PMC's fund must amass a membership of 50,000 during the first three years of its establishment,[1769] and retain it subsequently. If a fund's membership falls below this threshold, and remains low for a quarter, its PMC loses its authorisation (although these conditions are less relevant for incumbents now than in the initial period of the scheme).[1770]

Tax and financial incentives

Pensions in this scheme are subject to an 'EET' (exempt-exempt-taxed) regime.[1771] Contributions are tax-deductible and pension account capital gains are exempt from taxation.[1772] Income from pensions is taxed above a certain threshold, which stood at RON 2000 (approximately €400) in 2020; this tax is calculated only on the part of the pension income above that threshold.[1773]

Opt-out conditions

It was permitted for members who had been contributing to the scheme for at least five years to opt out from this scheme between December 2018[1774] and January 2020.[1775] Opting out meant stopping contributions to the mandatory private scheme,[1776] such that contributions all went to the public pension. For the rest of this scheme's operation, it has been mandatory for those in its scope.

Accumulation conditions

Each participant may only invest in one fund under this contribution-neutral compulsory scheme.[1777] Since 2010, if a new member does not make a choice of fund within four months of

[1764] Article 1(2) of Law No. 113/2013 for the approval of Government Emergency Ordinance No. 93/2012 on the establishment, organization and operation of the Financial Supervisory Authority, 2013 (*Lege pentru aprobarea Ordonanţei de urgenţă a Guvernului nr. 93/2012 privind înfiinţarea, organizarea şi funcţionarea Autorităţii de Supraveghere Financiară*).

[1765] IOPS, 'Romania - Pension System Overview'. Available at http://www.iopsweb.org/researchandworkingpapers/romania-pensionsystemoverview.htm.

[1766] Law no. 313/2005 for the approval of the Government Emergency Ordinance no. 50/2005 on the establishment, organization and functioning of the Commission for the Supervision of the Private Pension System, 2005 (*Lege pentru aprobarea Ordonanţei de urgenţă a Guvernului nr. 50/2005 privind înfiinţarea, organizarea şi funcţionarea Comisiei de Supraveghere a Sistemului de Pensii Private*), available at: http://legislatie.just.ro/Public/DetaliiDocumentAfis/65898.

[1767] Šebo,J. and Voicu, Ş. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1768] Ibid.

[1769] Article 5 of Law no. 411/2004 on Privately Administered Pension Funds, 2007 (*Lege privind fondurile de pensii administrate privat*).

[1770] Article 21 of Law no. 411/2004 on Privately Administered Pension Funds, 2007 (*Lege privind fondurile de pensii administrate privat*).

[1771] Šebo,J. and Voicu, Ş. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1772] Article 26 of Law no. 411/2004 on Privately Administered Pension Funds, 2007 (*Lege privind fondurile de pensii administrate privat*).

[1773] European Commission (2020), 'Your social security rights in Romania'. Available at https://ec.europa.eu/social/BlobServlet?docId=13772&langId=en.

[1774] Kolostyak, S. (2019), 'EU commission says new Romanian pension law poses risk to sustainability', *European Pensions*. Published 14th June 2019. Available at https://www.europeanpensions.net/ep/EU-commission-says-new-Romanian-pension-law-poses-risk-top-sustainability.php.

[1775] European Commission (2020), 'Country Report Romania 2020', *Commission Staff Working Document SWD(2020) 522 final*. Available at https://ec.europa.eu/info/sites/default/files/2020-european_semester_country-report-romania_en.pdf.

[1776] Kolostyak, S. (2019), 'EU commission says new Romanian pension law poses risk to sustainability', *European Pensions*. Published 14th June 2019. Available at https://www.europeanpensions.net/ep/EU-commission-says-new-Romanian-pension-law-poses-risk-top-sustainability.php.

[1777] Article 31 of Law no. 411/2004 on Privately Administered Pension Funds, 2007 (*Lege privind fondurile de pensii administrate privat*).

entering the scheme, they are randomly allocated to a fund.[1778] Prior to 2010, people who did not make a choice of fund were allocated according to a rule such that the probability of being allocated to a fund was equal to its market share (i.e. if a fund had 30% market share, 30% of non-choosers would be allocated to it).[1779]

Each fund is assigned a risk profile according to the proportion of its assets that are classed (in the regulations) as low risk. There are three risk profiles:[1780]

- Low risk funds have a risk degree below or equal to 10%;
- Medium risk funds have a risk degree above 10% and up to and including 25%;
- High risk funds have a risk degree above 25% and up to and including 50%.

The investment strategies of funds in this scheme are highly regulated. There exist limits on the percentages of each fund's portfolio in many different asset classes; below are the maximum percentages:

- 'up to 20% in money market instruments;
- up to 70% in State bonds of Romania, the EU or EEA;
- up to 30% in bonds and other transferable securities issued by the local public administrations in Romania, the EU or EEA, traded on a regulated market in RO, EU or EEA;
- up to 50% in securities traded on a regulated market in Romania, the EU or EEA;
- up to 15% in bonds issued by third-party states, traded on a regulated market in Romania, the EU or EEA;
- up to 10% in bonds and other transferable securities issued by the local public administration in third-party states, traded on a regulated market in Romania, the EU or EEA;
- up to 15% in bonds issued by the World Bank, the European Bank for Reconstruction and Development and the European Investment Bank, traded on a regulated market in Romania, the EU or EEA;
- up to 5% in bonds issued by Non-governmental Foreign Bodies, traded on a regulated market in Romania, the EU or EEA;
- up to 5% in units issued by Undertakings for Collective Investment in Transferable Securities – UCITS, including ETF in Romania, the EU or EEA;
- up to 3% in ETCs and equity securities issued by non UCITS set up as closed investment funds, traded on a regulated market in Romania, the EU or EEA;' [1781]
- up to 15% in shares and bonds issued by project companies, established on the basis of the Government Emergency Ordinance no. 39/2018 on public-private partnership, with subsequent amendments and completions, or in investment funds specialized in infrastructure;
- up to 3% in securities traded on regulated and supervised markets and issued by investment funds or companies that carry out activities of development and real estate promotion, purchase and sale of own real estate, rental and subletting of own real estate or real estate administration;
- up to 10% in private equity investments in the form of shares and bonds in companies in Romania, European Union countries or belonging to the European Economic Area or in the

[1778] Legea nr. 241/2010 pentru modificarea art. 33 alin. (2) din Legea nr. 411/2004 privind fondurile de pensii administrate privat. Available at https://www.asfromania.ro/uploads/articole/attachments/60801bde51e37461958341.pdf.

[1779] Legea nr. 411/2004 privind fondurile de pensii administrate privat. Available at https://www.asfromania.ro/uploads/articole/attachments/608019c896393592325779.pdf.

[1780] Šebo,J. and Voicu, Ş. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1781] Šebo,J. and Voicu, Ş. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

form of participations in private equity funds in Romania, from Member States of the European Union or of countries belonging to the European Economic Area.

Further, there are restrictions on the percentage of the securities issued by one issuer:

- 15% of the total number of shares issued by one issuer;
- 15% of the preferential shares issued by one issuer;
- 25% of the equity securities issued by an UCITS, ETF, non UCITS closed investment fund or ETC;
- 10% of the bonds of one issuer, with the exception of government bonds.[1782]

Funds associated with this scheme are not subject to restrictions on investing outside Romania.[1783]

Contribution fees are capped at 0.5% of the amount contributed; management fees are subject to a cap that depends on the real rate of a return, with the maximum cap being 0.07% of net assets per month if the fund achieves a rate of return four percentage points greater than the rate of inflation.[1784]

Decumulation conditions

The participant can take benefits either as a lump sum or through a five-year fixed-term withdrawal.[1785] To date, benefits have been paid out to approximately 48,000 people, and the vast majority of these people have taken their benefits as a lump sum.[1786] Legislation that will permit annuitisation is yet to be adopted.

Participants can withdraw from their private pension accounts under this scheme at the legal retirement age.[1787] Benefits can also be withdrawn if the participant is rendered unable to work by illness or disability.[1788] The benefits are also inheritable upon the participant's death.[1789]

Performance of underlying investment vehicles

Between 2008, the year in which contributions began, and the end of 2020, the average annual return achieved by mandatory pension funds was 8.17%.[1790] Average annual inflation in that time was 2.96%,[1791] implying an average annual return of 5.05% in real terms.

Solidarity clauses

None.

Interactions with other pension schemes

Contributions to the mandatory private pillar involve a redirection of social security contributions, the remainder of which fund the PAYG public pension.

[1782] Article 13(5) of Norm no. 11/2011 on investing and valuing the assets of private pension funds, 2012, (*Norma nr.11/2011 privind investirea și evaluarea activelor fondurilor de pensii private*),

[1783] Šebo,J. and Voicu, Ș. ed. (2019), *Country Case: Romania*, 'Pension Savings: The Real Return, 2019 Edition'. Available at https://betterfinance.eu/wp-content/uploads/Real-Returns-2019-Romanian-Country-Case.pdf.

[1784] Article 86(1) of Law no. 411/2004 on Privately Administered Pension Funds, 2007 (Lege privind fondurile de pensii administrate privat).

[1785] Boon, B., 'The Romanian Pension Reform'. Available at https://www.fiapinternacional.org/wp-content/uploads/2016/01/bram_boon.pdf.

[1786] Table 17 of ASF Romania (2021), 'Fonduri De Pensii Administrate Privat - Date Statistice ((Mandatory Private Pension Funds - Statistical Data)'. March 2021. Available at https://asfromania.ro/csspp/uploads/files/en-date-stat-site-pii-mar-2021_2jsj.xlsx.

[1787] Article 41 of Law no. 19/2000 on the public pension system and other social security rights, 2000 (*Lege privind sistemul public de pensii și alte drepturi de asigurări sociale*), available at: http://legislatie.just.ro/Public/DetaliiDocument/21690.

[1788] Boon, B., 'The Romanian Pension Reform'. Available at https://www.fiapinternacional.org/wp-content/uploads/2016/01/bram_boon.pdf.

[1789] *Ibid*.

[1790] Smith, S. (2021), 'Romania's pillar II pension system sees returns of 6.19% in 2020', *European Pensions*. Published 26th January 2021. Availale at https://www.europeanpensions.net/ep/Romanias-pillar-ii-system-achieves-returns-of-619-despite-pandemic.php.

[1791] *Ibid*.

Future developments

In 2019, Florin Citu (then the finance minister) stated that the contribution rate would rise to 5% in 2021, and then in 2022 to the 6% that the original legislation had envisaged.[1792]

[1792] Ilie, L. (2019), ‘Exclusive: Romania's pension system needs complete overhaul - Finance Minister’, *Reuters*. Published 17th December 2019. Available at https://www.reuters.com/article/us-romania-budget-exclusive-idUSKBN1YL28P.

12.14. Spain (Voluntary occupational schemes)

Basic characteristics

Type of scheme	**Voluntary opt-in scheme**
Type of provider(s)	Private
Status of the scheme	Active
Year scheme became active	1999[1793]

Scope of the scheme

Employer size(s) covered	**All employers**
Employer sector(s) covered	All sectors
Type of employees covered	Private sector employees
Coverage for self-employed persons?	No

Overview of Spanish pension system

The Spanish pension system consists of a public, pay-as-you go pension, voluntary defined benefit or defined contribution occupational pension plans and voluntary personal plans. The public scheme is earnings-related, however, there is a maximum amount that may be paid out per month which was EUR 2617 in 2018.[1794] The public scheme also includes a means-tested minimum pension of EUR 657 per month for single pensioners and EUR 811 per month for pensioners with a dependent spouse.[1795] On average, the replacement ratio of the public pension is 72.7%.[1796] As of 1st January 2021, the retirement age in order to receive a full pension benefit is 66 years (if the person has paid social security contributions for less than 37 years and 3 months) and 65 years (if the person has paid social security contributions for 37 years and 3 months or more). [1797] The public pension is funded by mandatory contributions of 4.7% for insured persons and 23.6% for employers. In order to qualify for any state pension benefit, the individual has to have at least 15 years of service. The means-tested non-contributory pension is for those who are 65 years (or older), resident in Spain[1798] and whose total annual income, calculated for the year 2021, is less than €5,639,20. The individual amount of the pension is established based on different factors (e.g., number of non-

[1793] Real Decreto 1588/1999, de 15 de octubre, por el que se aprueba el Reglamento sobre la instrumentación de los compromisos por pensiones de las empresas con los trabajadores y beneficiarios (Royal Decree 1588 / 1999 of 15 October, which approves the Regulation on the implementation of the commitments by pension companies with workers and beneficiaries), available at: https://www.boe.es/buscar/doc.php?id=BOE-A-1999-20936, last accessed on 08/02/2021.

[1794] OECD (2019) 'Spain', *Pensions at a glance 2019: Country profiles - Spain.* Available at: https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Spain.pdf

[1795] Ibid.

[1796] Better Finance (2020) 'Country case: Spain', *Pension Savings: The real return.* Available at : https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Spain.pdf

[1797] Artículo 4 de la Ley 27/2011, de 1 de agosto, sobre actualización, adecuación y modernización del sistema de Seguridad Social (Article 4 of Law 27/2011, of 1 August, which updates, adapts and modernises the Social Security System), available at: https://www.boe.es/buscar/act.php?id=BOE-A-2011-13242&p=20201231&tn=1#a4, last consulted on 10/02/2021.

[1798] The person shall reside in Spain when requesting the pension. Furthermore, the person must have resided in Spain for 10 years of which 2 must be consecutive and immediately prior to the date of the application.

contributory pension beneficiaries in the same economic unit of coexistence, personal income, etc.). However, the amount cannot be less than € 1,409.80 per year.[1799]

The voluntary, employer-sponsored pension plans have a replacement rate of almost 40% but less than 9% of the active population are covered by these schemes.[1800] Coverage rates are slightly higher for the voluntary personal plans with just under 25% of the working age population contributing to an individual plan.[1801]

Transition mechanisms

Employers are not obligated to provide an occupational pension scheme for their employees. Pension plans are voluntary and have a complementary nature, as they do not substitute the mandatory public pension system.[1802]

If an employer decides to establish a pension scheme it can be structured as a tax-qualified pension plan, group insurance contracts or, in exceptional circumstances, book reserves. Arrangements implemented through group insurance contracts and book reserves are not referred to as pension plans and are not subject to pension plan legislation[1803]. The majority of pension plans are defined contribution in nature, although about one-third of participants belong to a hybrid scheme which combines elements of defined benefit and defined contribution plans. A small number of participants have defined benefit plans.[1804]

Coverage rates associated with the scheme

Occupational pension plans cover private-sector employees. Plans must be non-discriminatory and open to all employees, without requiring more than two years of service.[1805] Nevertheless, differences in the contribution and benefits between different categories of employees can exist.[1806]

In 2019, occupational pension plans, group insurance contracts and book reserves represented 2.9%, 2.1% and 0.7% of GDP, respectively.[1807] Less than 11.9% of employees are covered by employer-sponsored pension plans[1808].

In 2017, occupational and personal pension schemes and unit-linked or mixed life insurance represented 16.3% of household financial assets and 3.28% of total household assets.[1809] Pension schemes and unit-linked or mixed life insurance were held by 26.8% of households in 2017. The number of households holding pension schemes and unit-linked or mixed life insurance increases with income and wealth. Only 6% of those in the lowest income percentile hold these assets, compared to 61% in the highest income percentile. Additionally, 43.3% of self-employed persons

[1799] Gobierno de España, Instituto de Mayores y Servicios Sociales. Available at: https://www.imserso.es/imserso_01/prestaciones_y_subvenciones/pnc_jubilacion/normativa_requisitos/index.htm, last consulted on 10/02/2021.

[1800] Better Finance (2020) 'Country case: Spain', *Pension Savings: The real return.* Available at : https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Spain.pdf

[1801] *Ibid.*

[1802] Artículo 1.2 del Real Decreto Legislativo 1/2002, de 29 de noviembre, por el que se aprueba el texto refundido de la Ley de Regulación de los Planes y Fondos de Pensiones (Article 1.2 of Royal Legislative Decree 1/2002 of 29 November approving the consolidated text of the Law on the Regulation of Pension Plans and Funds), available at: https://www.boe.es/buscar/act.php?id=BOE-A-2002-24252, last accessed on 08/02/2021.

[1803] OECD (2008). *Pension Country Profile: Spain*. OECD Private Pensions Outlook 2008, available at: https://www.oecd.org/finance/private-pensions/42565857.pdf

[1804] OECD (2008). *Pension Country Profile: Spain*. OECD Private Pensions Outlook 2008, available at: https://www.oecd.org/finance/private-pensions/42565857.pdf

[1805] Article 5.1.1 of the Royal Legislative Decree 1/2002.

[1806] Article 5.1.2 of the Royal Legislative Decree 1/2002.

[1807]OECD.Stat. 'Funded Pensions Indicators', available at: https://stats.oecd.org/Index.aspx?DatasetCode=PNNI_NEW#

[1808] Betterfinance.eu. 2020. *Long-Term and Pension Savings The Real Return*. [online] Available at: <https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Spain.pdf> [Accessed 14 May 2021].

[1809]Bank of Spain, Survey of Household Finances (EFF), available at: https://pas.bde.es/f/webbde/SES/estadis/eff/ficheros/en/EFF2017_DatosActualizados_en.pdf have pension schemes, unit-linked or mixed life insurance, compared to 37.3% of employed persons[1810].

Contribution rates of the scheme

Until 2020, the maximum annual contribution could not exceed €8.000. As of January 2021, the maximum personal contributions cannot exceed €2,000 and the maximum level of employer contributions cannot exceed €8.000[1811].

In 2016, the average balance of an occupational pension plan was almost double that of personal plans at €17,415.[1812] According to the IOPS, contributions to occupational pensions fell by 0.53% in 2016. According to the Annual Labour Cost Survey (ALCS), employers spent an average of €450.81 on voluntary insurance and pension contributions, supplementary social security benefits and social charges per employee in 2019.[1813]

Providers

There are several funding vehicles that can be used for occupational pensions in Spain:

- Planes de Pensiones de Empleo (Employer pension plans)
- Previsión Social Empresarial (Qualified group insurance)
- Seguros colectivos (Group insurance)
- Entidades de Previsión Social (EPS)
- Entidad de Previsión Social Vasca (only in the Basque Country)

Providers of occupational pension schemes are the same as those providers of personal pension schemes. Pension fund management vehicles must meet prudential requirements, comply with IORP directives[1814] and be authorised by the Directorate General for Insurance and Pension Funds.[1815] Additionally, providers must be established as limited companies with the sole business aim of managing a pension fund. [1816] The administrator must manage all the contributions and benefits.

Tax and financial incentives

The maximum contributions an individual can make to a pension plan is €2,000 or 30% of the individual's net income.

In the case occupational pensions, there must always be an employer contribution. The maximum an employer can contribute is €8,000, this is in addition to the employees' contributions.[1817] Contributions are tax-exempt but benefits are taxed[1818].

[1810] Bank of Spain, Survey of Household Finances (EFF), available at: https://pas.bde.es/f/webbde/SES/estadis/eff/ficheros/en/EFF2017_DatosActualizados_en.pdf

[1811] Article 5.3.a) of the Royal Legislative Decree 1/2002; see also: https://www.mercer.com/our-thinking/law-and-policy-group/spains-2021-budget-includes-pension-plan-changes.html

[1812] IOPS country profile: Spain, Pg. 4, available at: http://www.iopsweb.org/resources/44878367.pdf, last consulted on 10/02/2021.

[1813] Ine.es. 2020. *Annual Labour Cost Survey 2019 (ALCS)*. [online] Available at: <https://www.ine.es/en/prensa/eacl_2019_en.pdf> [Accessed 14 May 2021].

[1814] Article 20 of the Royal Legislative Decree 1/2002.

[1815] Article 11 of the Royal Legislative Decree 1/2002.

[1816] Article 20 of the Royal Legislative Decree 1/2002.

[1817] Artículo 52.1.a) de la Ley 35/2006, de 28 de noviembre, del Impuesto sobre la Renta de las Personas Físicas y de modificación parcial de las leyes de los Impuestos sobre Sociedades, sobre la Renta de no Residentes y sobre el Patrimonio (Article 52.1.a) of Law 35/2006, of 28 November, on Personal Income Tax and partial modification of the laws on Corporation Tax, on Non-Resident Income and on Patrimony), available at: https://www.boe.es/buscar/act.php?id=BOE-A-2006-20764, last accessed on 10/02/2021. See also: Spain- Income Tax, KPMG, available at: https://home.kpmg/xx/en/home/insights/2011/12/spain-income-tax.html, last accessed on 10/02/2021.

[1818] Betterfinance.eu. 2020. *Long-Term and Pension Savings The Real Return*. [online] Available at: <https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Spain.pdf> [Accessed 14 May 2021].

Opt-out conditions

It is a voluntary opt-in scheme.[1819]

Accumulation conditions

Time commitment

The minimum retirement age depends on the number of years that a person has paid social security contributions. As of 1st January 2021, the minimum retirement age for both public and occupational pensions is 66 years (if the person has paid social security contributions for less than 37 years and 3 months) and 65 years (if the person has paid social security contributions for 37 years and 3 months or more). The retirement age will increase gradually to 67 in 2027, when the retirement age will be 67 years (if the person has paid social security contributions for less than 38 years and 6 months) and 65 years (if the person has paid social security contributions for 38 years and 6 months or more). [1820]

Investment strategy

The investment policies of occupational Pension Plans are determined by a 'control committee'. The committee normally consists of equal representatives for employer and employees with the additional assistance of competent advisors.

Decumulation conditions

Decumulation can come in the form of an annuity, lump sum, or a combination.[1821] In 2016, 49.8% of benefits were paid out as a lump sum, down from 78% in 2006.[1822]

Performance of underlying investment vehicles

Table 24 Annual nominal investment rates of return of occupational pension plans[1823]

Year	Nominal	Real
2000	-3.62%	-7.62%
2001	0.64%	-1.87%
2002	-3.72%	-7.73%
2003	6.73%	4.04%
2004	5.52%	2.24%
2005	8.39%	4.67%
2006	5.36%	2.64%
2007	2.44%	-1.84%
2008	-10.50%	-11.95%
2009	9.28%	8.38%
2010	2.01%	-0.86%
2011	0.00%	-2.35%
2012	8.04%	5.03%
2013	7.70%	7.39%
2014	7.14%	8.27%
2015	2.88%	3.01%

[1819] Article 1 of the Royal Legislative Decree 1/2002.

[1820] Artículo 4 de la Ley 27/2011, de 1 de agosto, sobre actualización, adecuación y modernización del sistema de Seguridad Social (Article 4 of Law 27/2011, of 1 August, which updates, adapts and modernises the Social Security System), available at: https://www.boe.es/buscar/act.php?id=BOE-A-2011-13242&p=20201231&tn=1#a4, last consulted on 10/02/2021.

[1821] IOPS (2018). 'IOPS Country Profile: Spain', available at: http://www.iopsweb.org/resources/44878367.pdf

[1822] OECD (2008). 'The OECD Private Pensions Outlook 2008 – Pension Country Profile: Spain', available at: https://www.oecd.org/finance/private-pensions/42565857.pdf

[1823] Data refer to pension funds and book reserves only.

Year	Nominal	Real
2016	2.74%	1.33%
2017	3.19%	1.97%
2018	-3.19%	-4.42%
2019	8.74%	7.89%
Cumulative 2000-2019	75.72%	16.20%
Average 2000-2019	2.86%	0.75%

Source: INVERCO

Solidarity clauses

None.

Interactions with other pension schemes

As previously mentioned, occupational and personal pensions are voluntary and have a private and complementary nature, as they do not substitute the public pension system.[1824]

Future developments

The Spanish government is planning to introduce auto-enrolment into occupational pension plans as part of a package of measures aimed at increasing the coverage of occupational pensions.[1825]

[1824] Artículo 1.2 del Real Decreto Legislativo 1/2002, de 29 de noviembre, por el que se aprueba el texto refundido de la Ley de Regulación de los Planes y Fondos de Pensiones (Article 1.2 of Royal Legislative Decree 1/2002 of 29 November approving the consolidated text of the Law on the Regulation of Pension Plans and Funds), available at: https://www.boe.es/buscar/act.php?id=BOE-A-2002-24252, last accessed on 08/02/2021.

[1825] Cortés, R.P. (2020), 'Escrivá facilitará la adhesión automática del trabajador a los planes de empresa'. *Cinco Días (El País)*. Available at https://cincodias.elpais.com/cincodias/2020/11/11/economia/1605126369_205969.html.

12.15. Sweden (Premium pension)

Basic characteristics

Type of scheme	**Contribution-neutral compulsory**[1826]
Type of provider(s)	Mixed - a government agency, AP7, provides the default fund, and there are many private providers in the market.
Status of the scheme	Active
Year scheme became active	The reform introducing the contribution-neutral compulsory system began to be implemented from 1999. The first round of fund choices was made in 2000, although contributions began in 1995.[1827]

Scope of the scheme

Scope	**Universal amongst those born after 1938 with incomes over 20,135 SEK.**[1828]

Overview of Swedish pension system

The Swedish pension system consists of an earnings-related PAYG scheme, a basic, or guarantee, pension, a mandatory defined contribution pension that is provided by the state to those who have had a small pensionable income[1829] (the Premium Pension), occupational pension schemes and voluntary personal pension schemes.[1830] The basic pension is an income-tested top-up benefit, which is provided as a supplement to pensioners with low levels of benefits from the earnings-related scheme.[1831] The basic pension guarantees an income of approximately 21% of gross average earnings upon retirement. Occupational schemes cover over 90% of employees, mostly through one of four large sector-wide agreements established through collective bargaining.[1832] The Swedish pension system also features voluntary personal pensions. In January 2016, the tax deduction for personal pension savings was removed[1833] for all workers other than the self-employed,[1834] meaning there are now no tax-favoured private pension accounts for employees except for those who lack any pension rights in employment.

Transition mechanisms

Those born in the year 1938 were the first cohort of workers covered by the new public pension system introduced from 1999, which includes the premium pension.[1835] This cohort received 4/20 of their public pension from the new public pensions, including the premium pension, and 16/20

[1826] Sweden also has high occupational pension coverage through (quasi-)mandatory arrangements made through collective bargaining. This fiche focuses on the contribution-neutral compulsory premium pension system.

[1827] Kent Weaver, R., 'Design and Implementation Issues in Swedish Individual Pension Accounts', *Social Security Bulletin*, Vol. 65, No.4, 2003/2004. Available at https://www.ssa.gov/policy/docs/ssb/v65n4/v65n4p38.html.

[1828] Verksamt.se (2021), 'Your national retirement pension and occupational pension', last modified 8th February 2021. Available at https://www.verksamt.se/web/international/starting/your-national-retirement-pension-and-occupational-pension.

[1829] European Commission, 'Sweden – Old-age pension'. Available at https://ec.europa.eu/social/main.jsp?catId=1130&langId=en&intPageId=4814

[1830] OECD (2019) 'Sweden', *Pensions at a glance 2019: Country profiles – Sweden.* Available at: https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Sweden.pdf

[1831] Ibid.

[1832] Hagen, J. (2020) in Better Finance, 'Pension Savings: The Real Return'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Edition.pdf.

[1833] Ibid.

[1834] Regeringskansliet (2018), 'The Swedish pension system and pension projections until 2070'. Available at https://ec.europa.eu/info/sites/info/files/economy-finance/final_country_fiche_se.pdf.

[1835] Kent Weaver, R., 'Design and Implementation Issues in Swedish Individual Pension Accounts', *Social Security Bulletin*, Vol. 65, No.4, 2003/2004. Available at https://www.ssa.gov/policy/docs/ssb/v65n4/v65n4p38.html.

from the old public pension.[1836] Each cohort after that received 1/20 more of their public pension from the new public pension and 1/20 less from the old one. Those born in 1954 were the first cohort to be fully in the new system, including the premium pension.[1837]

Coverage rates associated with the scheme

The number of people with premium pension rights is 89.7% of the working age population.[1838]

Contribution rates of the scheme

All employees earning at least 20,135 SEK per annum pay a general pension contribution equal to 7% of their gross income[1839] up to a ceiling of around 550,000 SEK per annum.[1840] Employers contribute an additional 10.21% of each employee's gross income to the public pension through a payroll tax.[1841] Total contributions for the public pension (of which the premium pension is a part) are therefore 17.21% of gross income for employees. The self-employed contribute at the same rate.[1842] 17.21% of gross income equates to 18.5% of pensionable income, defined as gross income minus the general pension contribution. Out of the 18.5% of pensionable income contributed, 2.5% is allocated to the premium pension, while the remaining contributions are for the income pension.[1843]

Providers

There are more than 60 fund managers, providing nearly 500 different funds (as of 8th May 2021, there were 62 providers providing 468 different funds).[1844] These providers include the AP7, a public agency that manages the default fund (and others), and private firms. Amongst private firms, some of the larger fund managers are Swedbank, AMF, Didner & Gerge and Nordea Bank.

The entry conditions for fund managers were initially relatively lax, and this was reflected in the proliferation of funds and fund managers in the market. Initially, it was required that a fund met European Union directives on portfolio diversification – though there are exemptions that allow Swedish equity funds to enter despite typically being concentrated on a relatively small number of stocks – that it committed to give fee rebates to the Premium Pension Authority[1845], and that it committed to allow contributors to change funds without incurring fees for doing so.[1846] Each fund manager may provide up to 25 funds.[1847] In November 2018, additional entry restrictions for fund managers were introduced. These included requirements that fund providers manage at least 500 million SEK outside the premium pension market, that it have three years of business history and that it adheres to minimum requirements with respect to sustainability.[1848] Fund providers were also obliged to submit or re-submit an application to the Pensionsmyndigheten for permission to provide a premium pension fund.[1849] The number of funds available fell as a result; the number of

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[1836] Ibid.

[1837] Ibid.

[1838] Data from fred.stlouisfed.org and Pensionsmyndigheten (Swedish Pensions Authority).

[1839] Hagen, J. (2013), 'A History of the Swedish Pension System', Uppsala Center for Fiscal Studies Working Paper 2013:7. Available at https://www.diva-portal.org/smash/get/diva2:621560/FULLTEXT01.pdf.

[1840] European Commission, 'Sweden – Old-age pension'. Available at https://ec.europa.eu/social/main.jsp?catId=1130&langId=en&intPageId=4814

[1841] Hagen, J. (2013), 'A History of the Swedish Pension System', Uppsala Center for Fiscal Studies Working Paper 2013:7. Available at https://www.diva-portal.org/smash/get/diva2:621560/FULLTEXT01.pdf.

[1842] Ibid.

[1843] Ibid.

[1844] Pensionsmyndighten (Swedish Pensions Authority), at https://www.pensionsmyndigheten.se/mina-tjanster/fondtorg/sok.

[1845] There no longer exists a separate Premium Pension Authority; the Pensionsmyndigheten (Swedish Pensions Agency) is now the authority responsible for the premium pension.

[1846] Kent Weaver, R., 'Design and Implementation Issues in Swedish Individual Pension Accounts', *Social Security Bulletin*, Vol. 65, No.4, 2003/2004. Available at https://www.ssa.gov/policy/docs/ssb/v65n4/v65n4p38.html.

[1847] Ibid.

[1848] Pensionsmyndighten (Swedish Pensions Agency), at https://www.pensionsmyndigheten.se/nyheter-och-press/pressrum/nytt-avtal-klart-for-premiepensionens-fondtorg.

[1849] Hagen, J. (2020) in Better Finance, 'Pension Savings: The Real Return'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Edition.pdf.

funds was over 800 in late 2018 but stands below 500 now.[1850] Further changes are likely; see below.

Tax and financial incentives

The premium pension is taxed more favourably than occupational and personal pensions in Sweden. The employee does not pay tax on premium pension contributions or on occupational pension contributions; however, contributions to occupational plans – financed just by the employer – are subject to a payroll tax.[1851] Capital gains from occupational and personal pensions are taxed while capital gains from the premium pension are not.[1852] Returns from occupational and personal pensions are taxed at a flat rate of 15% based on a fictive return calculated using the government's borrowing rate.[1853] Income from all pensions is taxed.[1854]

Opt-out conditions

The premium pension is mandatory for those born after 1938 with incomes over 20,135 SEK.[1855]

Accumulation conditions

Contributions

Contributions are equal to 2.5% of pensionable income below a ceiling of 550,000 SEK.[1856] Those who have worked in Sweden since 1995 are entitled.[1857]

Investment strategy

The available funds comprise both actively managed funds and index funds and have different levels of risk. The AP7 Såfa fund (the default fund) employs a life-cycle investment strategy.[1858] It invests in AP7's equity and fixed income funds. Until the age of 55, all of the saver's capital is invested in the AP7 Equity Fund; from the age of 56 until the age of 75, the capital is reallocated annually towards the AP7 Fixed Income Fund.[1859] By 75, two-thirds of the capital is allocated to the AP7 Fixed Income Fund, with the remainder in the equity fund.[1860]

AP7 has a stated goal of the long-term return of the AP7 Såfa fund exceeding growth in the income pension by two to three percentage points.[1861]

Decumulation conditions

[1850] Ibid.

[1851] OECD (2020), 'Financial incentives for funded private pension plans in OECD countries', OECD project on Financial Incentives and Retirement Savings, 4th December 2020. Available at https://www.oecd.org/daf/fin/private-pensions/financial-incentives-retirement-savings.htm.

[1852] Ibid.

[1853] Ibid.

[1854] Ibid.

[1855] Verksamt.se (2021), 'Your national retirement pension and occupational pension', last modified 8th February 2021. Available at https://www.verksamt.se/web/international/starting/your-national-retirement-pension-and-occupational-pension.

[1856] Ibid.

[1857] European Commission, 'Sweden – Old-age pension'. Available at https://ec.europa.eu/social/main.jsp?catId=1130&langId=en&intPageId=4814.

[1858] AP7, 'AP7 Såfa'. Available at https://www.ap7.se/english/ap7-safa/.

[1859] Ibid.

[1860] Ibid.

[1861] AP7, Extract from the 2020 Annual Report. Available at https://www.ap7.se/app/uploads/2017/04/ap7_extract-from-annual-report-2020.pdf.

Individuals can begin receiving their premium pension from the age of 62.[1862] The minimum age for receiving one's premium pension had been 61 until 1st January 2020.[1863] This minimum age is planned to increase further, to 63 in 2023 and to 64 in 2026.[1864]

There are two ways in which savers can take benefits from the premium pension at the decumulation phase: a standard annuity or a unit-linked annuity, where the value of the annuity is linked to the performance of the fund in which the saver was investing during the accumulation phase.[1865]

Performance of underlying investment vehicles

As of 31st March 2021, the default AP7 Såfa fund had achieved average annual returns of 16.2% over the previous five years; it currently charges a management fee of between 0.075% and 0.05% depending on the saver's age.[1866] There are also administrative charges by the Pensionsmyndigheten, the authority that oversees the premium pension system, which stand at 0.04% of assets up to a maximum of 100 SEK per saver. Providers must offer a rebate on fees in the premium pension market, because the Swedish Pensions Agency administrates accounts in the system.[1867]

Solidarity clauses

While employer contributions for public pensions – including the premium pension – are required equal to 10.21% of *all* gross income, contributions on income above the income ceiling (see above) do not add to a worker's public pension entitlements.[1868] Employer contributions on income above the income ceiling are therefore essentially a tax.[1869]

Interactions with other pension schemes

The premium pension forms part of the public pension in Sweden.

Future developments

The 2019 report of an inquiry into the premium pension system recommended the replacement of the current fund market by the end of 2023 with one in which participating funds are procured by an agency that would also run the AP7 fund.[1870] As of 2021, the cross-parliamentary pension group has agreed that participating funds shall be procured by a new, dedicated agency.[1871] AP7 will continue in its current role. The number of funds is likely to be reduced from current levels to between 150 and 200 funds.[1872] The Finansinspektionen, the financial supervisory authority in Sweden, had published a recommendation to reduce the number of premium pension funds to 10-15.[1873] These reforms of the premium pension system aim to help protect consumers from making

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[1862] OECD (2019), *Country profile: Sweden*, 'Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Sweden.pdf.

[1863] Ibid.

[1864] Ibid.

[1865] Barr, N. (2013), 'The pension system in Sweden', *Report to the Expert Group on Public Economics 2013:7*. Available at https://www.lse.ac.uk/business-and-consultancy/consulting/assets/documents/the-pension-system-in-sweden.pdf.

[1866] AP7, https://www.ap7.se/.

[1867] Hagen, J. (2013), 'A History of the Swedish Pension System', Uppsala Center for Fiscal Studies Working Paper 2013:7. Available at https://www.diva-portal.org/smash/get/diva2:621560/FULLTEXT01.pdf.

[1868] Ibid.

[1869] Ibid.

[1870] Hagen, J. (2020) in Better Finance, 'Pension Savings: The Real Return'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Edition.pdf.

[1871] Pensionsmyndigheten (2021), 'Framtidens fondtorg för premiepensionen'. Published 18th February 2021. Available at https://www.pensionsmyndigheten.se/nyheter-och-press/nyheter/framtidens-fondtorg-for-premiepensionen.

[1872] Ibid.

[1873] Kirakosian, M. (2020), 'Regulator eyes cutting Sweden's premium pension list to 15 funds', *Citywire Selector*. Published 17th February 2020. Available at https://citywireselector.com/news/regulator-eyes-cutting-sweden-s-premium-pension-list-to-15-funds/a1324699.

costly choices[1874] and come after a number of scandals in which misselling[1875] and fraud[1876] by fund providers were alleged.

The default AP7 fund is reportedly not going to alter its investment plans over the next year in response to the Covid-19 pandemic.[1877]

[1874] Ibid. and Regerinskansliet (2021), 'Preciserad överenskommelse om det reformerade premiepensionssystemet'. Published 27th February 2021. Available at https://www.regeringen.se/pressmeddelanden/2021/02/preciserad-overenskommelse-om-det-reformerade-premiepensionssystemet/.

[1875] BEUC, 'The Price of Bad Advice'. Available at https://www.thepriceofbadadvice.eu/.

[1876] Hagen, J. (2020) in Better Finance, 'Pension Savings: The Real Return'. Available at https://betterfinance.eu/wp-content/uploads/The-Real-Return-Long-Term-Pension-Savings-Report-2020-Edition.pdf.

[1877] Lemonius, D. (2020), 'Exclusive: AP7's investment plans remain unchanged amid Covid-19', *Private Equity International*. Published 6th April 2020. Available at https://www.privateequityinternational.com/exclusive-ap7-investment-plans-remain-unchanged-amid-covid-19/.

12.16. United Kingdom (Auto-enrolment scheme)

Basic characteristics

Type of scheme	**Mandatory access auto-enrolment**
Type of provider(s)	Private
Status of the scheme	Active
Year scheme became active	2012[1878]

Scope of the scheme

Employer size(s) covered	**All employers, unless they are in a limited liability partnership (LLP)[1879]**
Employer sector(s) covered	All sectors
Type of employees covered	Employees over the age of 22, earning more than £10,000 per year[1880]
Coverage for self-employed persons?	Self-employed persons are not covered by automatic enrolment[1881] but can voluntarily opt in

Overview of the pension system in the United Kingdom

The United Kingdom (UK) pension system consists of a public pension, occupational pensions including but limited to the auto-enrolment scheme covered in this fiche, and voluntary opt-in personal pensions.

The public pension system in the UK consists of a basic State Pension for individuals who reached retirement age before 6th April 2016, and a new State Pension for individuals who reach state pension age from that day onwards.[1882] The basic State Pension consists of a flat-rate basic pension and an earnings-related additional pension, while the new State Pension is a flat rate scheme.[1883] In order to ensure that all pensioners receive an minimum level of income, the state provides a targeted pension credit to those living on low incomes.[1884] The public pension system is complemented by a large voluntary private pension sector.[1885] All individuals earning above GBP 10,000 per year are automatically enrolled into a qualifying workplace scheme by their employers.[1886]

[1878] Assets.publishing.service.gov.uk. 2014. *Department for Work & Pensions*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/666203/auto-key-facts-enrolment-booklet.pdf> [Accessed 14 May 2021].

[1879] GOV.UK. 2021. *Workplace pensions*. [online] Available at: <https://www.gov.uk/workplace-pensions/joining-a-workplace-pension> [Accessed 14 May 2021].

[1880] GOV.UK. 2021. *Workplace pensions*. [online] Available at: <https://www.gov.uk/workplace-pensions/joining-a-workplace-pension> [Accessed 14 May 2021].

[1881] GOV.UK. 2020. *Automatic Enrolment evaluation report 2019*. [online] Available at: <https://www.gov.uk/government/publications/automatic-enrolment-evaluation-report-2019/automatic-enrolment-evaluation-report-2019> [Accessed 14 May 2021].

[1882] OECD (2019) 'United Kingdom', *Pensions at a glance 2019: Country profiles – United Kingdom.* Available at: https://www.oecd.org/els/public-pensions/PAG2019-country-profile-United-Kingdom.pdf

[1883] *Ibid.*

[1884] *Ibid.*

[1885] *Ibid.*

[1886] *Ibid.*

In November 2018, the state pension age for men and women equalised to the age of 65 and gradually increased to 66 in October 2020[1887]. The new state pension for those aged 66 and over distributes average weekly amounts of £160.18 and £152.55 for men and women, respectively. This is a change from the old state pension that distributed an average of £163.78 and £135.56 to men and women. It is worth noting that entitlements are equal for men and women if they have made sufficient contributions. In 2019 there were 12.6 million people receiving the state pension, 200,000 less than a year earlier.

For both men and women, the net replacement rate has decreased from 29% in 2014 to 28.4% in 2018, below the OECD average of 62.9% and EU average of 70.6%. If voluntary pensions (mainly occupational pensions) are included, the UKs net replacement rate increases to 62.2%[1888].

The proportion of eligible staff now saving in a workplace pension has increased from 55% (2012) to 87% (2018)[1889].

Transition mechanisms

The transitional period for schemes with defined benefits allowed the employer to choose to delay automatic enrolment until 30 September 2017. This was only applicable to employers who provide schemes with defined benefits, including hybrid schemes where a defined benefit pension is offered. It could only be used in respect of eligible jobholders who meet certain conditions.[1890]

The introduction of auto-enrolment was staged by employer size at April 2012; the table below displays the staging dates for employers of different sizes.

Automatic enrolment employer staging dates

Employer size (by PAYE scheme size) or other description April 2012	Staging date
120,000 or more	1 October 2012
50,000–119,999	1 November 2012
30,000–49,999	1 January 2013
20,000–29,999	1 February 2013
10,000–19,999	1 March 2013
6,000–9,999	1 April 2013
4,100–5,999	1 May 2013
4,000–4,099	1 June 2013
3,000–3,999	1 July 2013
2,000–2,999	1 August 2013
1,250–1,999	1 September 2013
800–1,249	1 October 2013
500–799	1 November 2013
350–499	1 January 2014
250–349	1 February 2014
160–249	1 April 2014
90–159	1 May 2014
62–89	1 July 2014
61	1 August 2014
60	1 October 2014
59	1 November 2014
58	1 January 2015
54–57	1 March 2015
50–53	1 April 2015

[1887] Thurley, D. and McInnes, R., 2020. Increases in the State Pension age for women born in the 1950s. [online] House of Commons Library. Available at: <https://commonslibrary.parliament.uk/research-briefings/cbp-7405/> [Accessed 16 April 2021].

[1888] R. McInnes (2019). House of commons library - Pensions: international comparisons

[1889] The net replacement rate is the individual net pension entitlement divided by net pre-retirement earnings, taking into account personal income taxes and social security contributions paid by workers and pensioners. (source: https://data.oecd.org/pension/net-pension-replacement-rates.htm)

[1890] Pensions act 2008, Part 1, Chapter 1, Articles 29-20 'Transitional', available at: https://www.legislation.gov.uk/ukpga/2008/30/part/1/chapter/1/crossheading/transitional; More information may be found in The Pension Regulator's 'Detailed guidance for employers. Transitional period for schemes with defined benefits: Delaying automatic enrolment for eligible jobholders who meet certain conditions', available at: https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/detailed-guidance-3b.ashx.

Employer size (by PAYE scheme size) or other description April 2012	Staging date
40–49	1 August 2015
30–39	1 October 2015
Fewer than 30	1 June 2015 to 1 April 2017
New employers (no PAYE income payable by April 2012)	1 May 2017 to 1 February 2018

Source: Aviva Life Services UK Limited[1891]

Coverage rates associated with the scheme

Overall

In 2019, 5.2 million public sector employees were eligible for automatic enrolment out of a total of 5.4 million public sector workers. In 2019, the private sector employed 27.4 million employees with 17.2 million of these employees eligible for auto-enrolment[1892]. Since the introduction of auto-enrolment, there has been a 60% increase in the number of eligible employees participating in workplace pension schemes across the public and private sectors. In 2019, a total of 77% of UK employees were members of a workplace pension scheme, up from 47% in 2012. Young workers have been impacted by the reforms, workplace pension membership of those aged 22 to 29 years has increased from 31% in 2012 to 80% in 2019. In the private sector 77% of men and 69% of women have workplace pensions. In the public sector there is no longer a gender gap in pension participation[1893].

Eligible employees

Employees become eligible once they reach the age of 22, normally work in the UK under a contract of employment and are earning over £10,000 from a single place of employment per annum.

In the private sector, participation in workplace pensions has increased from 55% in 2012 to 86% in 2019 (14.4 million out of 17.2 million eligible employees). Public sector pension participation remains at 92% (4.8 million out of 5.2 million eligible public sector workers), an increase of 4 percentage points since 2012.

In 2019, workplace pension participation was highest in the Energy and Water industry with 94% of eligible employees participating. The lowest participation rate was in the Agriculture and Fishing industry with 78% participating. The Agriculture & Fishing industry saw the largest increase since 2012, increasing by 59 percentage points.

In the private sector, the largest increase in participation was seen among 22 to 29 year olds, with participation up from 24% in 2012 to 85% in 2019. In 2012 participation rates for eligible private sector male and female employees was 43% and 40% respectively, this has increased to 86% for both male and female workers in 2019[1894].

Contribution rates of the scheme

Statutory minimum rates for employees and employers:

- Before April 2018: 0.8% (employees), 1% (employers), 0.2% (tax relief)

[1891] See https://www.hencilla.co.uk/assets/Uploads/Staging-Date-view-document.pdf

[1892] Williams, M., 2019. *Public sector employment, UK - Office for National Statistics*. [online] Ons.gov.uk. Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/publicsectorpersonnel/bulletins/publicsectoremployment/march2019> [Accessed 14 May 2021].

[1893] Mainwaring, H., 2020. *Employee workplace pensions in the UK - Office for National Statistics*. [online] Ons.gov.uk. Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/workplacepensions/bulletins/annualsurveyofhoursandearningspensiontables/2019provisionaland2018finalresults> [Accessed 14 May 2021].

[1894] Assets.publishing.service.gov.uk. 2020. *Workplace Pension Participation and Savings Trends of Eligible Employees Official Statistics: 2009 to 2019*. [online] Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/892841/workplace-pension-participation-and-saving-trends-2009-2019.pdf> [Accessed 14 May 2021].

- After April 2018: 2.4%, 2%, 0.6%
- After April 2019: 4%, 3%, 1%

(Source: Nest[1895])

Contributions are calculated upon qualifying earnings. In 2021, the qualifying earnings band is £6,240 to £50,270 per annum. The earnings on which an employee's contributions will be based are their salary, up to a maximum of £50,270 less the lower level of qualifying earnings i.e. £6,240[1896].

Tax relief can be provided through two different mechanisms, relief at source or a net pay arrangement. Under a relief at source arrangement, tax is deducted from an employee's after-tax earnings. The pension provider claims back tax paid on those earnings at the basic rate of 20%, the refund is then paid into the pension account. Individuals paying tax at a higher rate (40%) or additional rate (45%) can claim the difference in the basic tax relief and the amount of tax they paid through their tax return. The additional refund is not paid to the pension account. Under a net pay arrangement, pension contributions are taken from an employee's gross salary before income tax is deducted. Employees receive tax relief via PAYE at their highest marginal rate meaning that higher earners don't have to claim additional tax relief from HMRC through a self-assessment tax return. A net pay arrangement also means that employees who don't pay income tax don't benefit from the same government contribution as taxpayers. Contributions will cost non-taxpayers more in a net pay scheme than in a relief at source scheme[1897].

Providers

Inter alia:

- The BlueSky Pension Scheme
- Creative Pension Trust
- The Lewis Workplace Pension Trust
- National Employment Savings Trust (Nest)
- NOW: Pensions
- The People's Pension
- Smart Pension Master Trust
- Standard Life Workplace Pension
- True Potential Investments
- Workers' Pension Trust

(Source: The Pensions Regulator[1898])

The Pensions Act 2008 establishes Auto-enrolment.[1899] The Pensions Regulator (established by the Pensions Act 2004) is the UK Regulator of work-based pension schemes. It regulates the requirements which apply to payment of contributions by employers, registers employers' compliance with automatic enrolment requirements and regulates compliance with the

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[1895] Nestinsight.org.uk. 2019. *The auto enrolment experience over time*. [online] Available at: <http://www.Nestinsight.org.uk/wp-content/uploads/2019/02/The-auto-enrolment-experience-over-time.pdf> [Accessed 14 May 2021].

[1896] Nestpensions.org.uk. 2021. Qualifying earnings calculation | NEST Employer Help Centre. [online] Available at: <https://www.Nestpensions.org.uk/schemeweb/helpcentre/contributions/calculating-contributions/calculate-contributions-using-qualifying-earnings.html> [Accessed 16 April 2021].

[1897] Aviva.co.uk. n.d. *Tax relief in auto enrolment*. [online] Available at: <https://www.aviva.co.uk/business/workplace-pensions/auto-enrolment/tax-relief-information/#:~:text=The%20contribution%20that%20is%20deducted,claim%20it%20back%20from%20HMRC> [Accessed 14 May 2021].

[1898] Thepensionsregulator.gov.uk. n.d. *Choose a pension scheme | The Pensions Regulator*. [online] Available at: <https://www.thepensionsregulator.gov.uk/en/employers/new-employers/im-an-employer-who-has-to-provide-a-pension/choose-a-pension-scheme> [Accessed 14 May 2021].

[1899] Pensions Act 2008, Article 3, available at : https://www.legislation.gov.uk/ukpga/2008/30/contents.

requirements.[1900] The Financial Conduct Authority (FCA) regulates the sale and marketing of all stakeholder pension schemes and all personal pension schemes, authorises firms that provide and operate schemes and also regulates firms that give advice to consumers about these schemes.

The Finance Act 2004 outlines the applicable rules for registered pension schemes. New employer-sponsored pension schemes must be registered with HM Revenue & Customs (HMRC) and the Pension Regulator's Register of Pension Schemes. [1901]

Tax and financial incentives

Tax and financial incentives for participation in automatic enrolment take the form of tax relief and employer contributions (mentioned above). Additionally, contributions up to the annual allowance and investment returns are exempt from taxation while 75% of benefits are treated as taxable income (i.e., the UK operates an 'exempt-exempt-taxed' (EET) regime for private pensions).[1902]

The annual allowance is the amount which can be contributed to your pension each year while still receiving tax relief. The annual allowance applies across all of the pension plans an individual holds, it is not a 'per plan' limit. Currently, the annual allowance is capped at £40,000 and unused allowance can be carried over for three years. The £40,000 annual allowance is reduced by £1 for every £2 that the adjusted income exceeds £150,000, to a minimum annual allowance of £10,000. The annual allowance may be capped at £4,000 if the pension is accessed early. All pension contributions and increases in DB pensions values count towards the allowance[1903]. If contributions exceed the annual allowance, no tax relief can be claimed on the contributions which exceed the limit and the beneficiary will be faced with an annual allowance charge. The annual allowance charge will be added to the beneficiaries' taxable income. Alternatively, if the annual allowance charge is more than £2,000, the charge can be paid from pension plan assets. Unused annual allowances from the previous three tax years may be brought forward to reduce the annual allowance charge or eliminate the annual allowance charge completely. Those with a Money Purchase Annual Allowance (MPAA) cannot bring forward allowances from previous tax years[1904].

The MPAA is a reduced allowance of £4,000 per annum which applies to contributions made from April 2017. The MPAA allowance will be triggered if the beneficiary wants to contribute to their defined contribution plan but also takes flexible benefits which include income, such as a flexi-access drawdown[1905] or an Uncrystallised Funds Pension Lump Sum (UFPLS)[1906].

The lifetime allowance is the amount of pension benefits which can be drawn from pension schemes through either lump sums or retirement income before additional tax is incurred. The lifetime allowance for the tax year 2021/22 is £1,073,100. The tax rates on pension savings above the lifetime allowance is:

- 55% for monies taken as a lump sum
- 25% for monies taken as pension payments or cash withdrawals

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[1900] Pensions Act 2004, Part 1 'The Pensions Regulator', available at: https://www.legislation.gov.uk/ukpga/2004/35/part/1.

[1901] Finance Act 2004, Part 4, Chapter 2 'Registration of pension schemes', available at: https://www.legislation.gov.uk/ukpga/2004/12/part/4/chapter/2.

[1902] GOV.UK. n.d. *Tax on your private pension contributions*. [online] Available at: <https://www.gov.uk/tax-on-your-private-pension/annual-allowance> [Accessed 14 May 2021].

[1903] GOV.UK. n.d. *Tax on your private pension contributions*. [online] Available at: <https://www.gov.uk/tax-on-your-private-pension/annual-allowance> [Accessed 14 May 2021].

[1904] Pensions Advisory Service. 2021. The Annual Allowance - The Pensions Advisory Service. [online] Available at: <https://www.pensionsadvisoryservice.org.uk/about-pensions/saving-into-a-pension/pensions-and-tax/the-annual-allowance> [Accessed 16 April 2021].

[1905] A flexi-access drawdown arrangement allows beneficiaries to withdraw 25% of their plan assets as a tax-free lump sum (possibly more if it is a protected lump sum) from the age of 55. If no tax-free cash sum is withdrawn at the outset, this opportunity will be lost at a later date. A tax-free cash sum now but no income can also be taken from the age of 55. When income is drawn, all of it will be subject to tax at the beneficiaries marginal rate of income tax (Source: https://www.pensionsadvisoryservice.org.uk/content/publications-files/uploads/Income_Drawdown_SPOT001_v1.5.pdf).

[1906] The UFPLS is applicable to those who do not take a 25% lump sum payment upon reaching the age of 55. Each time the beneficiary draws down a payment, 25% of it will be tax free, with the remaining 75% of each payment subject to income tax at their marginal rate (Source: https://www.pensionsadvisoryservice.org.uk/content/publications-files/uploads/Income_Drawdown_SPOT001_v1.5.pdf).

Opt-out conditions

Within one month following automatic enrolment when contributions will be refunded. Employees can opt-out thereafter following the rules of the particular pension scheme they are a member of. Jobholder's right to opt out is outlined in the Pensions Act 2008.[1907] Employers must re-enrol eligible employees who have opted-out every three years.[1908]

Accumulation conditions

Time commitment

Individuals cannot begin to draw benefits from occupational and personal pensions until at least they are 55 years old unless the normal retirement of the profession is earlier (e.g., professional athletes) or given specific individual conditions (e.g., poor health).[1909]

Investment strategy

Employees can either be automatically placed into a default fund or choose between funds offered by the chosen pension provider. Funds can be active or passive and include ethical and Sharia fund options.

Individuals are enrolled in a new plan each time they change employment i.e., the plan does not follow the participant. Member charges can erode small, deferred member pots over time and small pots can be uneconomic for providers to manage[1910].

Decumulation conditions

Most pension schemes set an age when participants can decumulate, usually between 60 and 65 or 55 at the earliest. Some companies offer to help participants withdraw money before the age of 55, however this is subject to tax implications and additional criteria[1911].

Decumulation can be an active or passive decision depending on the scheme. If a scheme does not offer a default decumulation pathway, pensioners will have to choose to keep their funds in the scheme and receive an annuity (if this is offered by the provider), take the monies out as a lump sum or purchase and annuity[1912].

Performance of underlying investment vehicles

Nest example

[1907] Pensions Act 2008, Chapter 1, Section 8, available at: https://www.legislation.gov.uk/ukpga/2008/30/section/8.

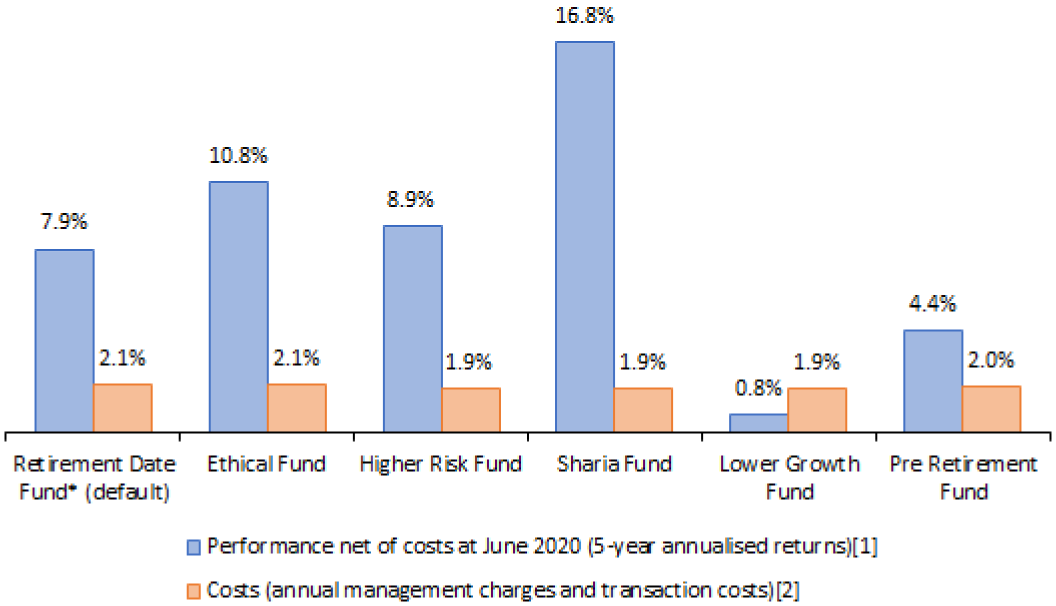
[1908] Thepensionsregulator.gov.uk. 2021. Re-enrolment for employers | The Pensions Regulator. [online] Available at: <https://www.thepensionsregulator.gov.uk/en/employers/re-enrolment> [Accessed 16 April 2021].

[1909] Pensions Advisory Service. n.d. *When can I take money from my pension?*. [online] Available at: <https://www.pensionsadvisoryservice.org.uk/about-pensions/retirement-choices/when-can-i-take-money-from-my-pension#:~:text=A%20great%20benefit%20of%20pension,can%20receive%20your%20State%20Pension.&text=Whether%20you%20have%20a%20defined,from%20the%20age%20of%2055> [Accessed 14 May 2021]..

[1910] Pensionspolicyinstitute.org.uk. 2021. Policy options for tackling the growing number of deferred members with small pots. [online] Available at: <https://www.pensionspolicyinstitute.org.uk/media/3546/20200723-deferred-members-executive-summary.pdf> [Accessed 16 April 2021].

[1911] GOV.UK. n.d. *Workplace pensions*. [online] Available at: <https://www.gov.uk/workplace-pensions/managing-your-pension> [Accessed 14 May 2021].

[1912] Publications.parliament.uk. 2018. *Pension freedoms - Work and Pensions Committee - House of Commons*. [online] Available at: <https://publications.parliament.uk/pa/cm201719/cmselect/cmworpen/917/91705.htm> [Accessed 14 May 2021].



*Note: *2040 fund*
Source: [1] https://www.Nestpensions.org.uk/schemeweb/dam/Nestlibrary/Nest-quarterly-investment-report.pdf. [2] https://www.Nestpensions.org.uk/schemeweb/dam/Nestlibrary/the-effect-of-our-costs-and-charges.pdf

Solidarity clauses

None.

Interactions with other pension schemes

The UK's new state pension, which will be received by those retiring on or after 6th April 2016, is a flat rate pension[1913] and so entitlements to it are not affected by auto-enrolment pension income. The cohorts who receive the new state pension will also not be eligible for Pension Credit, an income-tested benefit for retirees, and therefore auto-enrolment pension income will not affect those cohorts' entitlement to that benefit.[1914]

Future developments

A number of changes to the UK's auto-enrolment scheme are being trialled or consulted on. See section 5.6.6

[1913] OECD (2019) 'United Kingdom', *Pensions at a glance 2019: Country profiles – United Kingdom.* Available at: https://www.oecd.org/els/public-pensions/PAG2019-country-profile-United-Kingdom.pdf

[1914] Ibid.

12.17. United States (401(k)s, 403(b)s, governmental 457(b)s, SARSEPs, and SIMPLE IRAs)

Basic characteristics

Type of scheme	**Voluntary access auto-enrolment**
Type of provider(s)	Private
Status of the scheme	Active
Year scheme became active	1998[1915]

Scope of the scheme

Employer size(s) covered	**All employers**
Employer sector(s) covered	All sectors
Type of employees covered	For 401(k)s, employers cannot impose minimum age requirements above 21 years or a minimum tenure requirement of more than one year of service
Coverage for self-employed persons?	Self-employed persons are not covered by automatic enrolment

Overview of pension system in the United States

The pension system in the United States consists of an earnings-related, publicly provided pension scheme, known as social security, a means-tested top-up payment for low-income pensioners and systems of occupational and personal pensions. Many of the occupational pension plan types allow for the employer to auto-enrol employees, but access provision is not mandatory.[1916] In recent years, 14 states have passed legislation for state auto-IRA schemes mandating employers (often only those with at least a certain minimum number of employees) to auto-enrol eligible employees in a state-administered personal scheme.[1917] In three states – California, Oregon and Illinois – these programmes have begun operating.[1918]

The replacement rate of the earnings-related pension in the US decreases as income increases, making this part of the US system progressive.[1919] There is a replacement rate of 90% for the first 20% of national average wage earned, and a 32% replacement rate for salaries up to 118% of national average wage.[1920] For income above 118% of the average wage, the replacement rate is 15%. Currently, the age at which individuals can receive an old-age public pension in the United States is 66. The pension age is increasing to 67 by 2027. Pension benefits may be deferred until the age of 70 or a reduced pension can be paid from the age of 62.[1921] Pension benefits are based upon an individual's 35 highest years of earnings indexed for past wage inflation.[1922] There is no

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[1915] In 1998, the Internal Revenue Service and Treasury issued a ruling clarifying that employer were permitted to auto-enrol newly hired employees into 401(k) plans. A small number of companies had implemented auto-enrolment before this ruling, before this legal clarification was given. See US Treasury (2000), 'Fact Sheet on Automatic Enrollment in 401(k) Plans'. Available at https://www.treasury.gov/press-center/press-releases/documents/autoenroll.doc.

[1916] Ibid.

[1917] O'Brien, S. (2021), 'State-run 'auto IRAs' are gaining steam as a savings solution for workers lacking a retirement plan', *CNBC*. 29th June 2021. Available at https://www.cnbc.com/2021/06/29/state-run-auto-iras-gaining-steam-as-a-retirement-savings-solution.html.

[1918] Ibid.

[1919] Ibid.

[1920] Ibid.

[1921] Social Security Administration, 'Retirement Benefits 2021', available at : https://www.ssa.gov/pubs/EN-05-10035.pdf.

[1922] Social Security Administration, 'Learn about Retirement Benefits', available at: https://www.ssa.gov/benefits/retirement/learn.html#h3 minimum pension and the maximum monthly pension is $3,895 for those who take their pension at 70, $3,113 for those who take their pension at 66 and $2,324 for those who take their pension at 62.[1923] Generally, to be eligible an individual should have worked for at least 10 years.[1924]

Transition mechanisms

In 1998, it was clarified that employers were permitted to automatically enrol newly hired employees into a 401(k).[1925] In 2000, a ruling was issued according to which auto-enrolment was permitted for current employees.[1926] The Pension Protection Act, which was adopted in 2006, gave employers more certainty of the regulatory treatment of automatic enrolment and simplified employer requirements.[1927]

Automatic enrolment mechanisms can be applied to the following plan types:

- 401(k);[1928]
- 403(b);[1929]
- Governmental 457(b);[1930]
- SARSEPs;[1931]
- SIMPLE IRA.[1932]

There are three different types of automatic enrolment:

- **Automatic Contribution Arrangement (ACA)**
    - Employees are automatically enrolled into the plan unless they elect otherwise.
    - The plan document specifies the percentage of compensation that will be automatically contributed.
    - Employees can choose to opt out or to contribute a different percentage of pay.[1933]
- **Eligible automatic contribution arrangement (EACA)**
    - The employer uniformly applies a default contribution percentage to all employees after giving the required notice.
    - Employees may be allowed to withdraw automatic contributions, including earnings, within 30-90 days after the first automatic contribution.
    - Employees can choose to opt out or to contribute a different percentage of pay.

[1923] Social Security Administration, 'Workers with Maximum-Taxable Earnings', available at : https://www.ssa.gov/OACT/COLA/examplemax.html, last consulted on 05/02/2021.

[1924] This social security benefit is based on credits. When a person accumulates 40 credits they can receive the benefit; this equates to about 10 years of work. See: Social Security Administration, 'Retirement Benefits: Social Security Credits', available at: https://www.ssa.gov/benefits/retirement/planner/credits.html., last consulted on 05/02/2021.

[1925] Rev. Rul. 98-30, 26 CFR 1.401(k)-1 : Certain cash or deferred arrangements, Section 401 – Pension, Profit-Sharing, Stock Bonus Plans, etc. available at : https://www.irs.gov/pub/irs-drop/rr-98-30.pdf, last consulted on 05/02/2021.

[1926] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[1927] Ibid.

[1928] Internal Revenue Code of 1986, 26 U.S. Code §401(k), available at : https://www.law.cornell.edu/uscode/text/26/401, last consulted on 05/02/2021.

[1929] Ibid. §403(b).

[1930] Ibid. §457(b).

[1931] SARSEPs can no longer be established. For more information about SARSEPs, see: Internal Revenue Service, 'Publication 560, Retirement Plans for Small Business (SEP, SIMPLE, and Qualified Plans), available at : https://www.irs.gov/publications/p560, last consulted on 05/02/2021.

[1932] For more information about SIMPLE IRA, see: ibid.

[1933] Pension Protection Act of 2006 (Pub.L. 109-2080), Section 902; See also : Inland Revenue Service, 'Retirement Topics – Automatic Enrolment', available at : https://www.irs.gov/retirement-plans/plan-participant-employee/retirement-topics-automatic-enrollment.

    - Employees are 100% vested in their automatic enrolment contributions.[1934]
- **Qualified automatic contribution arrangement (QACA)**
    - The employer uniformly applies a default contribution percentage to all employees after giving the required notice.
    - The default percentage starts at 3% and gradually increases to 6% with each year that an employee participates. The default percentage cannot exceed 10%.
    - The employer must contribute either
        - A matching contribution of 100% of the 1st 1% of compensation and 50% of the next 6% of compensation; or
        - A 3% non-elective contribution for all participants including those who choose not to contribute.
    - Employees must be 100% vested in the employer's contribution after no more than 2 years of service.
    - Employees can choose not to contribute (opt out) or to contribute a different percentage of pay.[1935]

Retirement plans have to undergo non-discrimination testing to deduce whether the company's plan discriminates in favour of highly compensated employees. In general, highly compensated employees are those who received compensation of $130,000 or more from their employer in the previous year.[1936] The QACA is exempt from annual non-discrimination tests due to the uniform application of default contribution escalation for employees.[1937]

Coverage rates associated with the scheme

Overall

The provision of a pension plan by employers is not mandatory in the United States, moreover, plans which are provided do not have to include an automatic enrolment mechanism. However, an increasing number of DC pension plans are including an automatic enrolment mechanism in which new participants are enrolled into a plan until they opt out. . According to Vanguard, approximately half of retirement plans involve auto-enrolment.[1938] Meanwhile, in 2019 participation in schemes with automatic enrolment mechanisms stood at 92% versus 61% in plans which do not automatically enrol employees.[1939]

According to the House Ways and Means Committee, automatic enrolment has increased employee participation, particularly for Black, Latinx, and lower-wage employees. An early study found that plans with an auto-enrolment mechanism increased participation for short-tenure Latinx employees from 19% to 75%[1940]. Additionally, a study by Ariel and Aon-Hewitt found that '[t]he most dramatic increases in enrolment rates are among younger, lower-paid employees, and the racial gap in participation rates is nearly eliminated among employees subject to auto-enrolment.'[1941]

[1934] Ibid.

[1935] Ibid.

[1936] Internal Revenue Service. '401(k) Plan Qualification Requirements', available at: https://www.irs.gov/retirement-plans/plan-sponsor/401k-plan-qualification-requirements

[1937] Internal Revenue Service, 'FAQs – Auto Enrolment – Are there different types of automatic contribution arrangements for retirement plans?' (18 June 2020), available at: https://www.irs.gov/retirement-plans/faqs-auto-enrollment-are-there-different-types-of-automatic-contribution-arrangements-for-retirement-plans, last consulted on 05/02/2021.

[1938] Scott, J. (2018), 'Automatic Enrollment For Retirement Savings: An Increasingly Available Option With A Large Impact', *Forbes*. Available at https://www.forbes.com/sites/johnscott/2018/09/04/automatic-enrollment-for-retirement-savings-an-increasingly-available-option-with-a-large-impact/.

[1939] Vanguard (2020). 'How America Saves', available at:https://institutional.vanguard.com/ngiam/assets/pdf/has/how-america-saves-report-2020.pdf.

[1940] House Committee on Ways and Means (2020). 'The Securing a Strong Retirement Act of 2020', available at: https://waysandmeans.house.gov/sites/democrats.waysandmeans.house.gov/files/documents/2.0Sectionbysection_final.pdf

[1941] Ariel and Aon Hewitt (2012), '401(k) Plans in Living Color: A Study of 401(k) Savings Disparities Across Racial and Ethnic Groups'. Available at https://www.arielinvestments.com/images/stories/PDF/ariel-aonhewitt-2012.pdf.

Eligible employees

For 401(k)s, employers cannot impose minimum age requirements above 21 years or a minimum tenure requirement of more than one year of service.[1942] In contrast to QACA plans, ACA and EACA plans do not require employers to contribute until the employee has completed 2 years of service.[1943] QACA and ACA plans may require a number of years of service before employees are fully vested in the plan. For example, a plan may require that vested interest increases over time starting at 20% after 2 years of service. Matching contributions must vest at least as rapidly as a 6-year graded vesting schedule.[1944]

Employers are permitted to do an automatic enrolment sweep which enrols all eligible employees into the 401(k) plans at the default contribution rate, even if they are not new hires or have opted out before. A sweep can occur annually or can be a one-time event.[1945] Employers are not allowed to deduct automatic enrolment contributions until either 30 days after giving the employee notice or the pay date for the second pay period, whichever is earlier.[1946]

Contribution rates of the scheme

The default contribution rate is plan-specific. Under ACA and EACA plans, employers do not have to contribute. A QACA plan requires employers to make a minimum contribution of either 3% of compensation to all plan participants, even for those employees who choose not to contribute to the plan, or a matching contribution of 100% of the employee's contribution for up to 1% of compensation and a 50% matching contribution for the employee's contributions of between 1% and 6% of compensation.[1947]

The maximum annual employee contribution for 401(k), 403(b), and most 457 plans was $19,000 in 2019 and $19,500 in 2020 and 2021. The combined maximum contribution for employees and employers was the lesser of 100% of compensation or $56,000 in 2019. This limit increased to $57,000 in 2020 and $58,000 in 2021.[1948] Participants aged 50 or over are eligible for an additional catch-up contribution of $6,000 in 2019 and $6,500 in 2020 and 2021.

Vanguard's 2020 How America Saves report found that the average total employee and employer contribution rates were 10.3% for plans with automatic enrolment mechanisms, compared to 6.6% for voluntary enrolment plans.[1949]

Employers can add an automatic escalation mechanism to their 401(k) plans. Automatic escalation increases employee contributions automatically, for example, an employer may increase employee contributions by 1% per year until their contribution rate reaches 10%. Nearly a third of automatic enrolment plans now automatically increase contribution rates over time.[1950]

Providers

There are thousands of plan providers in the United States, which are often mutual funds. The Employee Retirement Income Security Act (ERISA) of 1974 established minimum standards in many

[1942] Droblyen, E. (2016), '401(k) Eligibility: When to Let Employees Join Your 401(k) Plan'. Available at https://www.employeefiduciary.com/blog/401k-eligibility-when-to-let-employees-join-your-401k-plan.

[1943] Internal Revenue Service, 'Publication 560 (2019), Retirement Plans for Small Business (SEP, SIMPLE, and Qualified Plans)'.

[1944] Pension Protection Act of 2006 (Pub L. 109-2080), Section 904.; see also : Internal Revenue Service, 'Issues Snapshot – Vesting Schedules for Matching Contributions' (18 June 2020), available at : https://www.irs.gov/retirement-plans/issue-snapshot-vesting-schedules-for-matching-contributions, last consulted on 05/02/2021.

[1945] Principal, 'How to increase 401(k) participation with an automatic enrolment sweep', available: https://www.principal.com/businesses/trends-insights/how-increase-401k-participation-automatic-enrollment-sweep, last consulted on 05/02/2021.

[1946] Internal Revenue Service, 'FAQS – Auto Enrolment – When can I deduct automatic enrolment contributions from my employee's wages ?'.

[1947] Pension Protection Act of 2006 (Pub.L. 109-2080), Section 902.

[1948] See 2019 : Internal Revenue Service, '401(k) contribution limit increases to $19,000 for 2019 ; IRA limit increases to $6,000' (November 1 2018), available at : https://www.irs.gov/newsroom/401k-contribution-limit-increases-to-19000-for-2019-ira-limit-increases-to-6000; See 2020/2021 : Internal Revenue Service, 'Retirement Topics – 401(k) and Profit-Sharing Plan Contribution Limits'.

[1949] Vanguard, 'How America Saves 2020 : Insights to Action' (2020), available at: https://institutional.vanguard.com/ngiam/assets/pdf/has/insights-to-action-2020.pdf, last consulted on 05/02/2021.

[1950] *ibid*.

areas for defined contribution pension plans in relation to *inter alia* vesting, funding and fiduciary responsibilities.[1951]

Tax and financial incentives

In general, contributions are tax-free for both the employer and employee. Benefits withdrawn from the fund including contributions and investment returns are treated as taxable income. Depending on the plan, an employee may be able to specify that their contributions go into a Roth account. Contributions to Roth accounts are taken from after tax income but withdrawals are tax free after the age of 59½ and if the account is at least 5 years old.[1952]

Lower income earners contributing to a retirement savings plan are eligible for a tax credit. The maximum earnings thresholds are as follows:

- $65,000 as a married joint filer in 2020; $66,000 in 2021;
- $48,750 as a head of household filer in 2020; $49,500 in 2021;
- $32,500 as any other filing status in 2020; $33,000 in 2021.[1953]
- The value of the tax credit will be 10%, 20% or 50% of annual retirement plan contributions of up to $1,000 per person, and thus up to $2,000 if married and filing joint tax returns.[1954]

Opt-out conditions

Employees can opt-out of the retirement plan by following the procedures specified by the employer in the automatic enrolment arrangement. Opt-out procedures are plan specific, for example a plan may state that employee's choice not to participate expires either annually or after a specific event. Participation in auto-enrolment plans is around 92%.[1955]

Accumulation conditions

Time commitment

In general, 401(k) funds may not be accessed until the saver reaches age 55.[1956] Those who withdraw money before this age will pay a 10% early withdrawal penalty, except in certain circumstances such as financial hardship in relation to medical and educational expenses.[1957] Those who leave their employer at the age of 55 can take a lump sum out of the plan administered by their previous employer, they do not have to pay an early withdrawal penalty on their lump sum but are still subject to income tax.[1958]

Plans which contain an EACA mechanism may allow employees to withdraw automatic enrolment contributions. The employee must elect to withdrawal automatic enrolment contributions within the time specified in the plan which is 30 - 90 days from the employee's first contribution. Employees who withdraw automatic enrolment contributions forfeit any matching employer contributions. Withdrawals are subject to income tax but not the additional 10% tax that normally applies to early withdrawals from retirement plans. Forfeited employer contributions are not refunded to the employer, the terms of the plan will specify how these amounts are treated. The employee can

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[1951] Cornell Law School Legal Information Institute, 'Pension law: An overview'. Available at https://www.law.cornell.edu/wex/pension.

[1952] Taxpayer Relief Act of 1997 (Pub. L. 105-34), Section 408A, available at: https://www.govinfo.gov/content/pkg/PLAW-105publ34/pdf/PLAW-105publ34.pdf, last consulted on 05/02/2021.

[1953] Internal Revenue Service, 'Retirement Savings Contributions Credit (Saver's Credit)' (30 November 2020), available at: https://www.irs.gov/retirement-plans/plan-participant-employee/retirement-savings-contributions-savers-credit, last consulted on 05/02/2021.

[1954] Ibid.

[1955] Scott, J. (2018), 'Automatic Enrollment For Retirement Savings: An Increasingly Available Option With A Large Impact', *Forbes*. Available at https://www.forbes.com/sites/johnscott/2018/09/04/automatic-enrollment-for-retirement-savings-an-increasingly-available-option-with-a-large-impact/.

[1956]

[1957] OECD (2019), 'Financial Markets, Insurance and Pensions: Inclusiveness and Finance'. Available at http://www.oecd.org/finance/Financial-markets-insurance-pensions-inclusiveness-and-finance.pdf.

[1958] See: Internal Revenue Service, 'Retirement Topics – Exceptions to Tax on Early Distributions'.

choose to make contributions to the plan in the future by submitting a new election form to the employer.[1959]

A 401(k) plan may allow employees to withdraw from their account in the case of financial hardship. Withdrawals can be made on employer and employee contributions as well as investment income. Financial hardship is defined as an immediate and heavy financial need of the employee whereby the withdrawal is necessary to satisfy that financial need such as:

- Expenses for medical care previously incurred by the employee, the employee's spouse, or any dependents of the employee or necessary for these persons to obtain medical care;
- Costs directly related to the purchase of a principal residence for the employee (excluding mortgage payments);
- Payment of tuition, related educational fees, and room and board expenses, for the next 12 months of postsecondary education for the employee, or the employee's spouse, children, or dependents;
- Payments necessary to prevent the eviction of the employee from the employee's principal residence or foreclosure on the mortgage on that residence;
- Funeral expenses; or
- Certain expenses relating to the repair of damage to the employee's principal residence that would qualify for the casualty deduction under IRC Section 165.[1960]
- Some 401(k) plans allow participants to borrow from the plan. In general, if loans are permitted by the plan a participant may borrow up to 50% of their vested account balance up to a maximum of $50,000. This maximum amount is reduced by outstanding loans from the plan or any other plan for their employer or related employer during the 1-year period ending the day before the loan. The amount of the reduction is the participant's highest outstanding loan balance during that period minus the outstanding balance on the date of the new loan.[1961]
- The loan must be repaid within 5 years, unless it is used to buy the participant's main home. The loan repayments must be made in substantially level payments, at least quarterly, over the life of the loan. Certain participant loans may be treated as taxable distributions if they are not paid back or if the participant leaves their job.[1962]

Investment strategy

The default investment fund is plan-specific. Employees can choose between funds offered by the chosen pension provider. Funds can be active or passive and include ethical and Sharia fund options. Vanguard found that 99% of plans with automatic enrolment had a balanced investment strategy as the default fund.[1963]

Decumulation conditions

There are five different decumulation options for 401(k) accounts: lump sum distributions; continuing the plan; transferring the money into an IRA or another retirement plan if that plan permits it; periodic distributions or purchasing an annuity.[1964] Distributions options are plan-specific and if funds are left in a 401(k), additional contribution into a plan run by a previous employer will not be accepted.

[1959] Internal Revenue Service, 'FAQs – Auto Enrolment – Can an employee withdraw any automatic enrolment contributions from the retirement plan?'.

[1960] Internal Revenue Service, 'Retirement Plan FAQs regarding Hardship Distributions'.

[1961] See: Internal Revenue Service, 'Issue Snapshot – Borrowing Limits for Participants with Multiple Plan Loans'.

[1962] Internal Revenue Service, 'Resource Guide – Plan Participants – General Distribution Rules' (2 February 2021), available at: https://www.irs.gov/retirement-plans/plan-participant-employee/401k-resource-guide-plan-participants-general-distribution-rules, last consulted on 05/02/2021.

[1963] Vanguard, 'How America Saves 2019 : Vanguard 2018 Defined Contribution Plan Data'.

[1964] Moneywise (2020). 'What's the Right Way to Cash Out a 401(k) When You Retire?, available at: https://moneywise.com/a/cash-out-a-401k-when-you-retire.

Unless the participant chooses otherwise, benefit payments must begin within 60 days after the close of the *latest* of the following periods:

- The participant reaches the earlier of age 65 or the normal retirement age specified in the plan;
- The 10th anniversary of the year in which the participant began participating in the plan;
- When the participant terminates service with the employer.[1965]
- In general, if the value of the funds in the account exceeds $5,000, the participants consent is required before any distribution. In certain cases, the plan also requires the consent of the participant's spouse. For distributions over $1,000, participants (or designated beneficiary) must elect to either receive the distribution or to roll over the amount to an eligible retirement plan. If the participant fails to make an election, the plan administrator must transfer the distribution to an individual retirement plan of a designated trustee or issuer and must notify the participant (or beneficiary) in writing that the distribution may be transferred to another individual retirement plan.[1966]

There are minimum distribution requirements whereby the plan administrator must determine the minimum amount that must be distributed to the beneficiary each year. Minimum distributions begin either when the participant reaches 72 (70½ if the participant reaches 70½ before January 1st 2020) or the year in which the participant retires, whichever is later. Some plans may require the participant to start receiving minimum contributions when the participant reaches 72 (70½ if the participant reaches 70½ before January 1st 2020) even if they are not retired.[1967] Approximately 10% of 401(k) plans offer annuities at the decumulation phase.[1968]

As a result of the SECURE Act 2019, there is now no age limit to contributing to an IRA, although only earnings can be contributed to IRAs (so contributions after retirement age are possibly only for those who continue working).[1969]

Performance of underlying investment vehicles

The performance of a 401(k) plan is dependent on the specific portfolio. This can either be a fund elected by the employee or a default fund chosen by the employer. According to the U.S. Department of Labour, there were 560,241 401(k) plans[1970] in 2018.

Table 25 Annual nominal investment rates of return of pension funds

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
12.5%	7.1%	-1.2%	7.0%	12.0%	4.0%	-1.4%	4.7%	9.7%	-4.4%	12.6%

Source: OECD, Pension Markets in Focus 2020 Statistical Annex
Note: Data refer to pension funds only.

Solidarity clauses

None.

Interactions with other pension schemes

[1965] Internal Revenue Service, 'Publication 560 (2019), Retirement Plans for Small Business (SEP, SIMPLE, and Qualified Plans)'.

[1966] Internal Revenue Service, '401(k) Plan Qualification Requirements'.

[1967] Internal Revenue Service . '401(k) Resource Guide – Plan Sponsors – General Distribution Rules', available at: https://www.irs.gov/retirement-plans/plan-sponsor/401k-resource-guide-plan-sponsors-general-distribution-rules.

[1968] Iacurci, G. (2020), 'More people may soon have annuities in their 401(k) plans', *CNBC*. Available at https://www.cnbc.com/2020/01/03/more-people-may-soon-have-annuities-in-their-401k-plans.html.

[1969] Congress.gov (2020). 'H.R.1994 - Setting Every Community Up for Retirement Enhancement Act of 2019', available at: https://www.congress.gov/bill/116th-congress/house-bill/1994/text.

[1970] US Department of Labor (2018). 'Private Pension Plan Bulletin', available at: https://www.dol.gov/sites/dolgov/files/ebsa/researchers/statistics/retirement-bulletins/private-pension-plan-bulletins-abstract-2016.pdf.

Occupation and personal pension income can affect public pension benefits. Those who file an individual federal tax return with a combined income of between $25,000 and $34,000 may have to pay tax on up to 50% of their Social Security benefits.[1971] Those earning more than $34,000 may have to pay tax on up to 85% of the Social Security income. For those filing a joint tax return, earnings between $32,000 to $44,000 may result in up to 50% of Social Security benefits being subject to tax. Earnings over $44,000 may result in up to 85% of Social Security benefits being subject to tax.[1972]

Future developments

Current President Joe Biden set out a plan in which 'almost all workers without a pension or 401(k)-type plan will have access to an automatic 401(k).[1973]

In October 2020, the House and Means Committee introduced the Securing a Strong Retirement Act[1974]. This act sets out a number of suggestions for changes in legislation and is expected to be a basis for bipartisan retirement discussions during the 2021–2022 legislative term. The bill identifies the following legislative priorities with regards to retirement savings, plan sponsorship, plan investments, lifetime income and preservation of income, plan administration and compliance[1975]:

- Mandatory automatic enrolment for newly established 401(k), 403(b) and SIMPLE plans. Contributions would be set at 3% and increase by 1% each year until the contribution rate reaches 10%. Employees would be able to opt out or elect a different contribution percentage. Employers with 10 or fewer employees, businesses that have been in business for less than 3 years, church plans or governmental plans would be exempt.
- The catch up contribution limit is currently $6,500 ($3,000 for SIMPLE plans) for those who are aged 50 and older at the end of a plan year. The catch up contribution would be increased to $10,000 ($5,000 for SIMPLE plans) for participants aged 60 or older at the end of the plan year under this bill. Both the age-50 and age-60 limits would be adjusted for inflation annually. Additionally, the $1,000 IRA catch-up contribution limit would be indexed for inflation.
- Employees would be allowed to treat qualified student loan payments as contributions for which employers would have to provide matching contributions.
- Additional employees would fall under the scope of the scheme. Employees who complete at least 500 hours for at least two consecutive years would be permitted to contribute to a DC plan sponsored by the employer. Currently the working requirement is set at 1,000 hours for at least 1 year.
- A lost and found database for retirement savings would be established.
- The saver's tax credit and income limits would increase, providing a 50% credit on savings up to $3,000 and to adjust the $3,000 amount annually for inflation.
- Small employers would be eligible for a tax credit if they allow spouses of those in the military to become eligible for participation in a defined contribution plan within two months of hire, make matching or non-elective contributions and provide 100% immediate vesting of the employer contributions.
- Employers could be able to offer small, immediate financial incentives, such as gift cards, to encourage plan participation. Currently, only matching contributions can be used as an incentive to make elective contributions.
- Currently, 403(b) plan investments are generally limited to annuity contracts and mutual funds. The legislation would allow 403(b) plans to invest in collective investment trusts.
- Annuities could invest in insurance-dedicated ETFs.

[1971] Combined income is adjusted gross income, plus non-taxable interest and half of any Social Security benefits. See Social Security Administration, 'Retirement Benefits 2021', available at : https://www.ssa.gov/pubs/EN-05-10035.pdf, last consulted on 05/02/2021.

[1972] *ibid*.

[1973] Joebiden.com (2020), 'The Biden Plan For Older Americas', available at: https://joebiden.com/older-americans/

[1974] Congress.gov (2020). 'H.R.8696 – Securing a Strong Retirement Act of 2020', available at: https://www.congress.gov/bill/116th-congress/house-bill/8696/text?r=1&s=1

[1975] Willis Towers Watson (2020). 'New bipartisan retirement bill builds on SECURE Act', available at:https://www.willistowerswatson.com/en-US/Insights/2020/12/new-bipartisan-retirement-bill-builds-on-secure-act

- Investments that use a mix of assets could be benchmarked against a blend of broad-based securities market indices.
- The age for required minimum distributions would increase to age 75 (from age 72).
- Participants with a DC retirement plan balance of $100,000 or less at the end of the calendar year before reaching 75 would not be required to comply with required minimum distribution requirements.
- The excise tax for failure to take required minimum distributions would be reduced from 50% to 25%. Additionally, the 25% tax would be reduced to 10% if a failure to take a required minimum distribution from an IRA is corrected in a timely manner.
- The legislation would update certain rules to reduce barriers to making life annuities available in DC plans and IRAs.
- Premiums on qualifying longevity annuity contracts (QLACs) would be increased from $135,000 to $200,000.
- Limitations would be set on the recovery of retirement plan overpayments mistakenly paid to retirees.
- Treasury, Department of Labour, and the Pension Benefit Guaranty Corporation would be directed to review current reporting and disclosure requirements and submit recommendations to Congress on how to consolidate, simplify, standardize and improve the requirements.
- Unenrolled participants would have to be reminded annually of their eligibility to the plan and applicable election deadlines. The plan would also have to provide any other required document requested by the unenrolled participant.
- A grace period to correct some errors in administering automatic enrolment and automatic escalation features within 9.5 months after the end of the plan year would be provided.
- Participants in 457(b) plans must elect to defer compensation into the plan. Currently, participants must elect to defer compensation on the first day of the month. This could be changed to a system whereby elective changes could be made any time before the date of contribution.
- The annual charitable distribution limit on IRAs would increase from $100,000 to $130,000
- Professional firefighters and emergency medical personnel would be permitted to join the government's pension plan.

Table 26 Comparison of pension plans in the US

Field	401(k)	403(b)	Governmental 457(b)	SARSEPS[1976]	SIMPLE[1977] IRA
Employer eligibility	Any non-government employer. Governments are eligible only if plan was established prior to May 1986.	Public education employer's corporation, trust, unincorporated association, public school systems organized by Indian tribal governments, or other type of organization exempt from federal income tax.	State, local government and tax-exempt employers.	The employer cannot be a state or local government, any of its political subdivisions, agencies, or instrumentalities or a tax-exempt organization. Employers must also: i) Have 25 or fewer eligible employees participating in the plan in the previous year[1978]; ii) At least 50% of the eligible employees choose to make salary reduction contributions the current year[1979] .	Any employer with 100 or fewer employees that does not currently maintain a retirement plan.
Employee eligibility	Generally, must be offered to all employees who are at least 21 years old who and worked at least 1,000 hours in the previous year.	If an employer permits one employee to join a 403(b) scheme, they must extend this offer to all employees (universal availability) Ministers (chaplains) who function as ministers in their day-to-day professional responsibilities with their employers or are self-employed.	Employees or independent contractors who perform services for the employer may participate. The plan may exclude employees based on length of service, hours worked, minimum age, job class or title and other factors such as labour agreements.	Employees who are at least 21 years old who have worked for the employer in at least 3 of the last 5 years. The employee must have received at least $600 in compensation from the employer for the year (subject to the annual cost of living adjustments.	Must be offered to all employees who have compensation of at least $5,000 in any prior 2 years, and are reasonably expected to earn at least $5,000 in the current year.

[1976] SARSEPS may not be established after 1996 but employees hired after 1996 must be allowed to participate in an existing SARSEPS.

[1977] SIMPLE stands for Savings Incentive Match Plan for Employees

[1978] As the year is a lookback rule, it may be the case that the plan has 23 employees eligible in 2018, but 27 eligible employees in 2019, salary reduction contributions may be made to the SEP-IRAs of the 27 employees for 2019. However, in 2020 no salary reduction contributions may be made for the employees.

[1979] If less than 50% of the eligible employees choose to make elective deferrals to the SARSEP for a year, all elective deferral contributions made by other eligible employees for that year are disallowed and must be withdrawn from the employees' SEP-IRAs.

Field	401(k)	403(b)	Governmental 457(b)	SARSEPS[1976]	SIMPLE[1977] IRA
Employer contributions	Not required	Not required	Not required	Not required	Employer must make matching contributions or contribute 2% of each employee's compensation.
Maximum annual contribution rates	Employee: $19,000 in 2019 and $19,500 in 2020 and 2021. Employer/Employee Combined: $56,000 for 2019 and $57,000 for 2020 and $58,000 for 2021.	Employee: $19,000 in 2019 and $19,500 in 2020 and 2021. Employer/Employee Combined: $56,000 for 2019 and $57,000 for 2020 and $58,000 for 2021.	Employer/Employee Combined: $19,000 in 2019 and $19,500 in 2020 and 2021.	Employee: $19,000 in 2019 and $19,500 in 2020 and 2021. Employer/Employee Combined: $56,000 for 2019 and $57,000 for 2020 and $58,000 for 2021.	Employee: $13,000 in 2019 and $13,500 in 2020 and 2021. Employer: Either match employee contributions 100% of first 3% of compensation (can be reduced to as low as 1% in any 2 out of 5 yrs.); or contribute 2% of each eligible employee's compensation.
Tax implications	Contributions are typically on a pre-tax basis. The fund grows tax free, but withdrawals are taxed. Plans may also allow for after-tax Roth contributions. Roth contributions can be withdrawn tax free but are contributed on an after tax basis.	Contributions are typically on a pre-tax basis. The fund grows tax free, but withdrawals are taxed. Plans may also allow for after-tax Roth contributions. Roth contributions can be withdrawn tax free but are contributed on an after tax basis.	Contributions are typically on a pre-tax basis. The fund grows tax free, but withdrawals are taxed. Plans may also allow for after-tax Roth contributions. Roth contributions can be withdrawn tax free but are contributed on an after tax basis. With a 457(b) plan, employees may also be allowed to contribute to an employer sponsored retirement plan of a different employer. Contribution to an additional plan can increase	Contributions are typically on a pre-tax basis. The fund grows tax free, but withdrawals are taxed. Roth contributions are not allowed.	Contributions are typically on a pre-tax basis. The fund grows tax free, but withdrawals are taxed. Roth contributions are not allowed.

Field	401(k)	403(b)	Governmental 457(b)	SARSEPS[1976]	SIMPLE[1977] IRA
			the employees' tax-deferred retirement savings and reduce their taxable income.		
Withdrawals, loans, and payments	Withdrawals are permitted after a specified event occurs (retirement, plan termination, etc.) but subject to federal income taxes. Plan may also permit hardship withdrawals. Early withdrawals are subject to an additional 10% tax. Participants must start receiving distributions by April 1 following the later of year of retirement or attainment of age 70½. Rollovers permitted to an eligible retirement plan or IRA. Some plans may allow participant loans	Withdrawals are permitted after a specified event occurs (retirement, plan termination, etc.) but subject to federal income taxes. Plan may also permit hardship withdrawals. Early withdrawals are subject to an additional 10% tax. Participants must start receiving distributions by April 1 following the later of year of retirement or attainment of age 70½. Rollovers permitted to an eligible retirement plan. Some plans may allow participant loans	Withdrawals permitted after severance from employment. Participants must start receiving distributions by April 1 following the later of year of retirement or attainment of age 70½. Plan may also permit hardship withdrawals. Early withdrawals are not subject to an additional 10% tax. Some plans may allow participant loans	Withdrawals are permitted anytime but subject to federal income taxes. Withdrawals are subject to an additional 10% tax if they are made before the participant is aged 59½. Loans are not permitted. Rollovers permitted to an IRA or eligible retirement plan.	Withdrawals are permitted anytime but subject to a 10% additional tax if taken before the age of 59½. If the participant has been in the plan for less than 2 years, the tax for early withdrawals is 25%. Participants must start receiving distributions by April 1 of the year after they turn 70½, Participants can't take loans. Rollovers permitted from one SIMPLE IRA to another SIMPLE IRA any time, A rollover from a SIMPLE IRA to a non-SIMPLE IRA or to an eligible retirement plan can be made tax-free only after a 2-year participation in the SIMPLE IRA plan
Vesting	Employee contributions are immediately 100% vested. Employer contributions may vest over time according to plan terms.	Employee contributions are immediately 100% vested. Employer contributions may vest over time according to plan terms.	Employee contributions are immediately 100% vested. Employer contributions may vest over time according to plan terms	All contributions are immediately 100% vested.	All contributions are immediately 100% vested.

Field	401(k)	403(b)	Governmental 457(b)	SARSEPS[1976]	SIMPLE[1977] IRA
Catch-up contributions allowed[1980]?	Annual catch-up contributions are allowed for employees who have reached age 50. Catch-up contributions are limited to $6,500 in 2021 and in 2020 ($6,000 in 2019), subject to cost-of-living adjustments).	Annual catch-up contributions are allowed for employees who have reached age 50. Catch-up contributions are limited to $6,500 in 2021 and in 2020 ($6,000 in 2019), subject to cost-of-living adjustments).	Annual catch-up contributions are allowed for employees who have reached age 50. Catch-up contributions are limited to $6,500 in 2021 and in 2020 ($6,000 in 2019), subject to cost-of-living adjustments). The plan may also permit additional contributions for the 3 years prior to reaching the normal retirement age[1981].	Annual catch-up contributions are allowed for employees who have reached age 50. Catch-up contributions are limited to $6,500 in 2021 and in 2020 ($6,000 in 2019), subject to cost-of-living adjustments).	Annual catch-up contributions are allowed for employees who have reached age 50. Catch-up contributions are limited to $3,000 in 2021.
Annual non-discrimination testing?	Required	Not required	Not required	Required	Not required

Source: https://www.irs.gov/

[1980] Catch-up contributions are additional contributions on top of the maximum contributions limit

[1981] Fisher401k.com. n.d. *457b Governmental Plans | Fisher 410k*. [online] Available at: <https://www.fisher401k.com/blog/457b-governmental-plans#:~:text=457(b)%20vs%20401(,a%20401(k)%20plan.&text=Employee%20contributions%20vest%20immediately%2C%20while,those%20contributions%20grow%20tax%20deferred.> [Accessed 14 May 2021].

13. ANNEX 4 - STAKEHOLDER CONSULTATIONS

13.1. List of completed consultations

The table below lists the consultations that were conducted as part of this study. We identify the individuals that we spoke to and, where relevant, their organisations. The individuals in the list include academics and individuals from National Competent Authorities (NCAs), business and employers' associations, consumer associations and trade unions, and pension fund management companies and other asset management companies (and associations thereof).

Organisation	Individual	Stakeholder type	Country
PensionsEurope	Matti Leppala and Simone Miotto	Association of national pension fund associations	Pan-European
Boğaziçi University	Seda Peksevim	Academic	General (Turkey)
-	Emma Suzanne van Aggelen	Legal expert	General (Belgium and the Netherlands)
Canadian Federation of Independent Business	Corinne Pohlmann	Business association	Canada
Department of Finance, Government of Canada	Kathleen Wrye and Neil Mackinnon	Government department	Canada
Association of Pension Fund Management Companies and Pension Insurance Companies (UMFO)	Dijana Markoja and Petar Vlaić	Pension fund association	Croatia
Union of Autonomous Trade Unions of Croatia (UATUC)	Darko Šeperić	Trade union confederation	Croatia
Confederation of Danish Employers (Dansk Arbejdsgiverforening, DA)	Erik E. Simonsen	Employers' association	Denmark
Danish Trade Union Confederation (Fagbevægelsens Hovedorganisation, FH)	Ingerlise Buck	Trade union confederation	Denmark
Finance Finland	Mikko Kuusela	Financial sector association	Finland
Finnish Financial Supervisory Authority	Teija Korpiaho	NCA	Finland
TELA (the Finnish Pension Alliance)	Risto Vaittinen	Pension provider asssociation	Finland
Kela (Social Insurance Institution of Finland)	Signe Jauhiainen	Government agency	Finland
Association Française de la Gestion Financière	Laure Delahousse, Arnaud Jacoulet and Alois Thiant	Asset management association	France
French Ministry of Economy,	Guillaume Flury	Government department	France

Organisation	Individual	Stakeholder type	Country
Finance and Recovery (Direction Générale du Trésor)			
aba	Verena Menne and Cornelia Schmid	Occupational pensions association	Germany
German Investment Funds Association (BVI)	Holger Sedlmaier	Association of investment and asset management funds	Germany
DIW Berlin (German Institute for Economic Research)	Dr Johannes Geyer	Academic	Germany
Association of Hungarian Insurers	Erika Schaub	Association of insurers	Hungary
Retired	Tamás Keleti	Trade union	Hungary
-	Tamás Kolosi	Employer	Hungary
Oriensim Fund Management Company	Péter Holtzer	Pension fund management firm	Hungary
Hungarian National Bank (MNB)	Richard Bense	NCA	Hungary
Ministry of Finance	Aliz Zsolnai	Government department	Hungary
Association of Trade Unions of Hungarian Artists and Hungarian Musicians' and Dancers' Trade Union	László Gyimesi	Trade union/trade union association	Hungary
MEFOP	Antonello Motroni	Pension fund association	Italy
COVIP	Ambrogio Rinaldi, Alessandra Caretta, Elisabetta Giacomel	NCA	Italy
Assogestioni	Arianna Immacolato, Francesco Lupi, Alessia Di Capua	Investment management association	Italy
Altroconsumo	Vincenzo Somma	Consumer organisation	Italy
Unione Italiana del Lavoro	Dr Domenico Proietti	Trade union	Italy
Ministry of Social Security and Labour	Vitalija Borunova	Government department	Lithuania
Bank of Lithuania	Audrius Silgalis and Viktorija Dicpinigaitiene	NCA	Lithuania
VNO-NCW	Jurre de Haan	Employers' organisation	Netherlands
APG Asset Management	Ronald Wuijster	Asset management firm	Netherlands
Federation of Dutch Pension Funds	Matthies Verstegen and Theo Langejan	Pension fund association	Netherlands

Organisation	Individual	Stakeholder type	Country
Dutch Authority for the Financial Markets (AFM)	Jan van Ewijk	NCA	Netherlands
MCA NZ	Michael Chamberlain	Actuaries and consultants	New Zealand
Retired	Michael Littlewood	Former pension consultant; honorary academic at Retirement Policy and Research Centre, University of Auckland	New Zealand
Financial Markets Authority	Paul Gregory	NCA	New Zealand
Financial Services Council	Richard Klipin	Financial services association	New Zealand
BusinessNZ	Kirk Hope	Business association	New Zealand
Polish Chamber of Funds and Asset Management	Małgorzata Rusewicz	Association of fund and asset managers	Poland
Instytut Emerytalny	Dr. Antoni Kolek	Think tank	Poland
All-Poland Alliance of Trade Unions	Katarzyna Duda	Trade union umbrella organisation	Poland
Polish Craft Association	Prof. Jan Klimek	Employers' organisation	Poland
PFR Portal	Robert Zapotoczny	Government-established auto-enrolment scheme information portal	Poland
AEGON Poland	Ludmila Falak-Cyniak	Asset management firm	Poland
Romanian Pension Funds' Association - APAPR	Mihai Bobocea	Pension fund association	Romania
ASF Romania	Mădălina Mușetescu	NCA	Romania
Inverco Asociación De Instituciones De Inversión Colectiva Y Fondos De Pensión (INVERCO)	Ángel Martínez-Aldama	Association of pension fund management companies	Spain
OCOPEN	Mariano Jiménez Lasheras	Association of pension consultants	Spain
UNESPA	Pilar Gonzalez de Frutos, Luis Miguel Ávalos and Carlos Esquivias	Insurer association	Spain
The Confederation of Swedish Enterprise	Lena Widman and Ingvar Backle	Business association	Sweden
Stockholm University / AP7 fund	Karolina Ekholm	Academic / Default fund	Sweden
AP7 fund	Richard Gröttheim	Default fund	Sweden
Swedish Pensions Agency	Ole Settergren	NCA	Sweden
Swedish Trade Union Confederation	Ola Pettersson	Trade union confederation	Sweden

Organisation	Individual	Stakeholder type	Country
The Swedish Consumers' Association	Jakob König	Consumer organisation	Sweden
Pensions and Lifetime Savings Association	Simon Sarkar and Nicky Day	Pension fund association	United Kingdom
Trade Union Congress (TUC)	Jack Jones	Trade union	United Kingdom
Smart Pension	Darren Philp	Master trust and platform	United Kingdom
University of Bath	Dr Thomais Massala	Academic	United Kingdom
Association of British Insurers	Charlotte Clark	Insurer assocation	United Kingdom
Nest Insight	Will Sandbrook	Research unit	United Kingdom
Georgetown Center for Retirement Initiatives	Prof. Angela M. Antonelli	Academic	United States
American Retirement Association	Andrew Remo	Professional association providing consulting and administrative services	United States
Pension Rights Center	Karen Ferguson, Jane Smith and Prof. Norman Stein	Consumer organisation	United States
The Brookings Institution	J. Mark Iwry	Think tank	United States

13.2. Main conclusions from interviews

The interviews that were conducted were also used to validate the country fiches as well as to inform the discussion contained in the body of the report. Unless specified otherwise, the views expressed in the report do not necessarily reflect those of any given interviewee or the organisation(s) to which they belong.

Several interviewees, though, emphasised that it is important to consider individual pension schemes within the context of the wider pension system in the country, rather than in isolation. The incentive to save in one scheme and the replacement rate that scheme needs to achieve depends on the coverage and adequacy secured by other schemes within the pension system.

The remainder of this section describes key findings from the interviews in relation to each of the four stages of an individual pension saver's 'journey' discussed in chapter 4.

13.2.1. Participation decision

- In many countries, the self-employed are excluded from pension schemes that are open to employees. While they could save by other means, such as in a voluntary personal pension plan, many do not. Pension provision for the self-employed is therefore lower than that for employees in many countries.
- Views on earnings triggers were mixed. Some stakeholders pointed out that low earners received higher replacement rates from public pensions than higher earners do, so their need to save in supplementary schemes is less than that of higher earners. However, other stakeholders argued that low earners were likely to benefit from participating in an auto-enrolment scheme.
    - Multiple stakeholders highlighted the gendered impact of assessing earnings on a by-job basis rather than in aggregate when implementing an earnings trigger.
- Several stakeholders were in favour of mandatory access provision by employers.

13.2.2. Accumulation phase: fund choice

- Several stakeholders highlighted the lack of pension awareness and financial literacy amongst many pension savers and suggested individuals would have difficulty in choosing between funds.

13.2.3. Accumulation phase: growing entitlements within funds

- Several stakeholders described that to some extent the gender pension gap reflects wider inequalities in society and in labour markets. These inequalities are a broader societal issue that are unlikely to be resolved by the pension system alone. However, pension schemes and systems can be designed so as to mitigate these inequalities in retirement. For instance, providing for the accrual of pension rights to continue during maternity leave could help to reduce pension inequalities between genders.
- Multiple stakeholders flagged the issue of small pots and described some of the policy solutions that have been suggested. The stakeholders noted that each of these solutions involves trade-offs.

13.2.4. Decumulation phase

- A number of stakeholders supported flexibility at the decumulation phase on the grounds that the saver had the right to use the assets they had accumulated as they wished. However, stakeholders also noted that many savers lacked financial literacy and that advice was therefore important to aid their decision-making.

13.3. Country questionnaires

The interviews firstly focused on the country fiches, gathering any feedback that stakeholders may have and asking follow-up questions. The stakeholders were then asked about informational gaps in the pension scheme assessment. Stakeholders were asked specific questions which served to deepen knowledge of the specific pension schemes in that country; these specific questions that were asked to each country's stakeholders are presented below. We asked stakeholders in all countries about, where relevant, earnings triggers, the level of employer contributions, the gender pension gap, and current problems with the pension system in their country that needed to be addressed.

Table 27 Summary of questions for Croatia

Questions
What is the cause of the concentration in the mandatory private scheme fund provider market? Is it a cause for concern?
Are the restrictions on investments suitable?
Why is participation in voluntary private pensions low?

Table 28 Summary of questions for Denmark

Questions
How has the role of the ATP and its interaction with other pension schemes in Denmark change over time?
How will the ATP and its role in Denmark's pension system change in the future?
Why is the ATP voluntary for the self-employed (but mandatory for employees and those on transfer incomes)?
Why are contributions to the ATP specified as fixed amounts that depend on hours worked, rather than as a percentage of income?

Table 29 Summary of questions for France

Questions
Do you think that the introduction of the new system of PERs (with PERIs, PERECOs, and PEROs succeeding PERPs, PERCOs, article 83 plans, etc.) has been a positive reform? Why, or why not?
We understand that automatic enrolment in PERCOs and PERECOs is possible. By this, we mean that it is possible for employees to be made members of PERCOs and PERECOs as the default, with the option for the employee to opt out. How common is this?
Do you think it would be positive if automatic enrolment became more prevalent in France? Why, or why not?
How has what we have been discussing today affected men and women differently?

Table 30 Summary of questions for Hungary

Questions
In 2018, there was talk of a retirement bond being issued by the Finance Ministry as a new retirement savings option; what happened to this bond? What was the reasoning behind the issuance of this bond?
Was people's trust in private pensions eroded due to the reforms made to the second pillar?
Did the pension system reforms change the role of the public pension and reduce the need for personal pension savings?
What are the arrangements for pension scheme governance in Hungary?
Are there any problems that you observe due to governance arrangements, such as high costs, hidden charges or poor investment decisions?
How could scheme governance be improved in Hungary?

Table 31 Summary of questions for Italy

Questions
How successful do you think the Trattamento di Fine Rapporto (TFR) auto-enrolment mechanism was in improving private pension provision in Italy? Follow-up: what factors do you think led to this positive/negative experience?
Was it the case that young people were more likely to opt out from the TFR auto-enrolment mechanism? If so: To what do you attribute this – affordability, pension awareness, or something else?
How successful have the auto-enrolment mechanisms made through collective agreements, like in the case of Prevedi, been? Why have these mechanisms had different impacts from the TFR auto-enrolment mechanism?
How has what we have been discussing today affected men and women differently?
What lessons do you think Italy's experience of auto-enrolment gives to other countries?

Table 32 Summary of questions for the Netherlands

Questions
What is the rationale for the exclusion of the self-employed from the occupational pension schemes?
Do the self-employed save for retirement in other ways? How is pension provision for the self-employed in the Netherlands relative to pension provision for employees?
How has the reform that was agreed to take effect from 2026 that will shift schemes to a collective DC set-up been received? What is your opinion of it?

Table 33 Summary of questions for New Zealand

Questions
Do the lack of decumulation conditions hinder the KiwiSaver's effectiveness in providing a sustainable standard of living for retirees?
Is there is a high burden (both in terms of administration and cost) associated with the KiwiSaver?
Would a re-enrolment mechanism improve plan participation?
Would an automatic escalation mechanism improve outcomes for pensioners?

Table 34 Summary of questions for Poland

Questions
How successful do you think the PPKs have been in improving private pension provision in Poland? Follow-up: what factors do you think led to this positive/negative experience? If negative, follow-up: what policies could have been implemented to improve these problems?
Are the self-employed 'left out' because they are not in the scope of PPKs, or is there adequate alternative provision for them?
How has what we have been discussing today affected men and women differently?
What lessons do you think Poland's experience of auto-enrolment gives to other countries?

Table 35 Summary of questions for Romania

Questions
How are the contribution rates set in the contribution-neutral mandatory scheme?
What is the cause of the increase in concentration amongst mandatory fund providers?
Why did so few people opt out from the contribution-neutral mandatory scheme when opting out was made possible?
Why has legislation permitting annuitisation not yet been adopted?

Table 36 Summary of questions for Spain

Questions
How necessary is it for persons to have access to an occupational pension in Spain?
Currently pension assets can be withdrawn as a lump sum, would pensioners outcomes improve if this was restricted to another mechanism such as an annuity?
How much autonomy do individuals have over their pension fund choices? How engaged are they with their investments?
What are the arrangements for pension scheme governance in Spain?
Are there any problems that you observe due to governance arrangements, such as high costs, hidden charges or poor investment decisions?
How could scheme governance be improved in Spain?

Table 37 Summary of question for Sweden

Questions
Current and planned reforms have reduced the number of funds and providers. Has this been seen as a successful/positive measure?
How has the rate of people making an active fund choice changed over time? Did it increase in the wake of the reforms that reduced the number of funds and providers?

Questions
What stance is now taken about active choice? We understand that initially it was encouraged, but that active choosers tended to be outperformed by the AP7 and the government stopped its advertising campaign aimed at encouraging.
What rules are there on advertising by PPM funds, and how was this changed over time?

Table 38 Summary of questions for United Kingdom

Questions
Should pension scheme rules such as opt-out conditions, minimum contribution etc. be decided at the statutory level or the plan level?
The government currently contributes in the form of tax relief, should the government contributions be structured in a different manner e.g. percentage of national average pay? If so, please explain why?
Is there is a high burden (both in terms of administration and cost) associated with AE in the UK?
Should contributions be based on all earnings instead of earnings bands? If so, please explain why?
Those in non-traditional work and the self-employed are generally not covered by the AE scheme, would including these groups cause much of an administrative burden? Why should those groups be included/excluded?

Table 39 Summary of questions for United States

Questions
Should enrolment into an occupational pension be mandatory? If so, please explain why?
Is there is a high burden (both in terms of administration and cost) associated with AE mechanisms?
Should employer contributions be mandatory? If so, please explain why?
The United States occupational pension system is categorise by many different scheme types and individual plan rules, does this system deter individuals from entering a pension plan, especially those who are less financially literate?

14. Annex 5 - Technical annex

14.1. K-means clustering analysis

This section examines whether consistent differences and similarities across selected OECD member countries can be observed with respect to a number of indicators relating to pension systems. This exercise draws on cluster analysis, which groups countries based on the value taken by various pension system indicators (listed in Table 40). Specifically, the k-means clustering algorithm was used to obtain groups of countries based on the latest available value of each indicator.

The analysis is based on 11 indicators and 13 of the countries within the scope of this study.[1982] The indicators were chosen based on their relevance to the study of pension systems as well as their availability across countries.[1983]

The cluster analysis identified seven groups of countries.

- Cluster 1: ES, HU, IT;
- Cluster 2: NL;
- Cluster 3: DK, FI;
- Cluster 4: NZ;
- Cluster 5: LT, PL, UK;
- Cluster 6: TR;
- Cluster 7: CA, US.

The average value of each indicator is presented, by cluster, in Table 40. These clusters are visualised graphically and interpreted in 14.1.2.

Table 40 Average indicator value within each cluster

Cluster	1	2	3	4	5	6	7
Assets							
Autonomous pension funds'[1984] assets as a % of GDP	7	194	50	31	41	3	88
Contributions							
Employees' contributions as a % of GDP (autonomous pension funds)	0	1	0	1	0	1	2
Employers' contributions as a % of GDP (autonomous pension funds)	0	3	1	1	1	0	2
Benefits							
Net pension wealth, Female, 1.00 of AW[1985] (ratio)	15	15	12	10	6	20	10
Net pension wealth, Male, 1.00 of AW (ratio)	14	14	10	9	6	18	9
Net pension replacement rate, Female, 1.00 of AW (%)	85	80	68	43	29	90	50
Net pension replacement rate, Male, 1.00 of AW (%)	87	80	68	43	32	94	50
Benefits paid as a % of GDP (autonomous pension funds)	0	4	1	2	1	0	5
Coverage							

[1982] Two of the chosen indicators are missing in FR and DE, three are missing in RO and SE, and four are missing in HR. These countries are therefore not included in the analysis.

[1983] Before running the cluster analysis, the indicators were standardised to have a mean of zero and standard deviation of one, as each indicator had a different level of variation across countries.

[1984] Autonomous pension funds are defined as « separate funds (i.e., separate institutional units) established for purposes of providing incomes on retirement for specific groups of employees which are organised, and directed, by private or public employers or jointly by the employers and their employees. These funds engage in financial transactions on their own account on financial markets and make investments by acquiring financial and non- financial assets. They do not include social security schemes organised for large sections of the community which are imposed, controlled or financed by general government. » OECD (n.d.) Glossary of Statistical Terms : Autonomous Pension Funds. [Online] Available at : https://stats.oecd.org/glossary/detail.asp?ID=143 [Accessed 9 August 2021]. For a number of the indicators that are broken down by contract type (i.e. autonomous pension funds, pension insurance contracts, book reserve (non-autonomous), other), the total across all contract types is not available for several countries, but the value for autonomous pension funds is available. Therefore, for consistency, all indicators which are broken down by contract type refer to autonomous pension funds.

[1985] AW denotes average worker earnings.

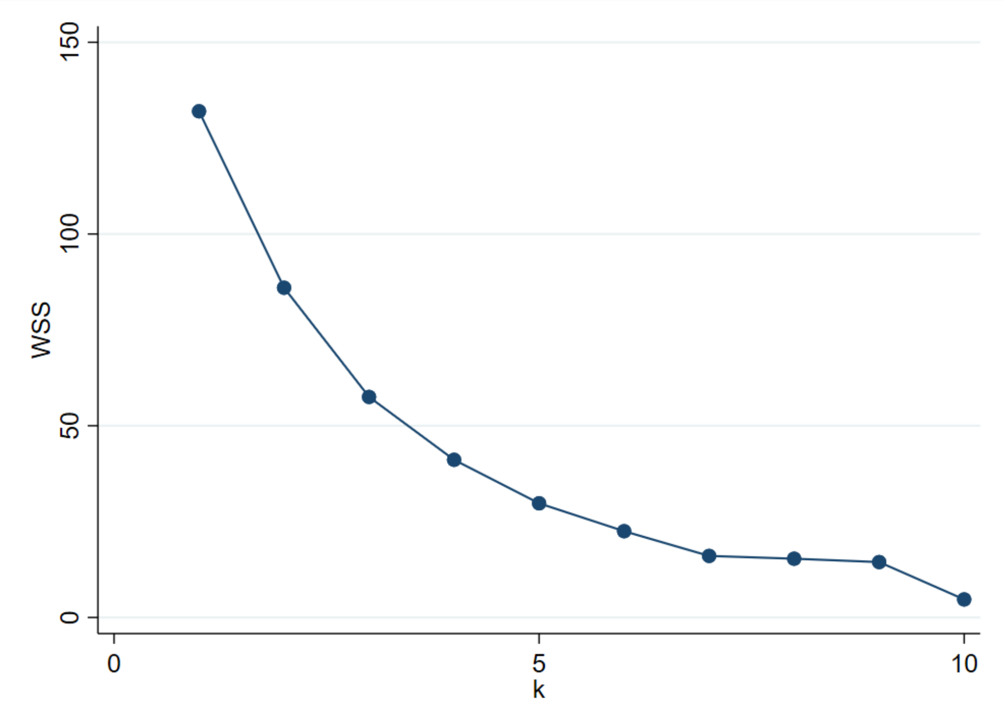
Cluster	1	2	3	4	5	6	7
Coverage rate (% of working-age population)[1986]	19	88	90	79	63	13	37
Labour market exit							
Effective labour market exit age, women	61	63	63	66	62	65	65
Effective labour market exit age, men	63	65	65	70	64	66	67

Source: LE Europe analysis of OECD data

14.1.1. Methodology

The K-means clustering algorithm has been used to determine clusters of countries based on a number of pension indicators reported by the OECD. This algorithm chooses clusters to minimise the variation within k clusters.[1987] In this case the Euclidean distance metric was used, and the algorithm was run with 10,000,000 iterations. The initial cluster assignment with which to start the algorithm was selected randomly. The choice of the number of clusters to use was informed by the within sum of squares (WSS) metric, which measures the variation within each cluster. The graph below (Figure 4) shows the WSS for k=1, …, 10. When running the k-means clustering algorithm, the WSS decreases with the number of clusters used, so one cannot select the k clusters based solely on the minimum WSS, as doing so would result in the same number of clusters as observations. Instead a rule of thumb is to look for a 'kink' in the WSS curve.[1988] There are kinks for k=3 and k=7, so these are potential candidates for the number of clusters.

Figure 4 Within sum of squares for different numbers of clusters in cluster analysis of pension systems in selected OECD member countries



Source: LE Europe analysis of OECD data

[1986] OECD coverage data gives coverage by 'Mandatory / Quasi-mandatory', 'Auto-enrolment', 'Voluntary occupational', 'Voluntary personal' and 'Voluntary (occ and pers)' schemes separately. One cannot obtain an overall coverage figure by summing these data, since there is overlap in who saves in each type of scheme but the data do not give insight as to what the extent of that overlap is. Hence, the indicator refers to coverage for the largest class of scheme in each country.

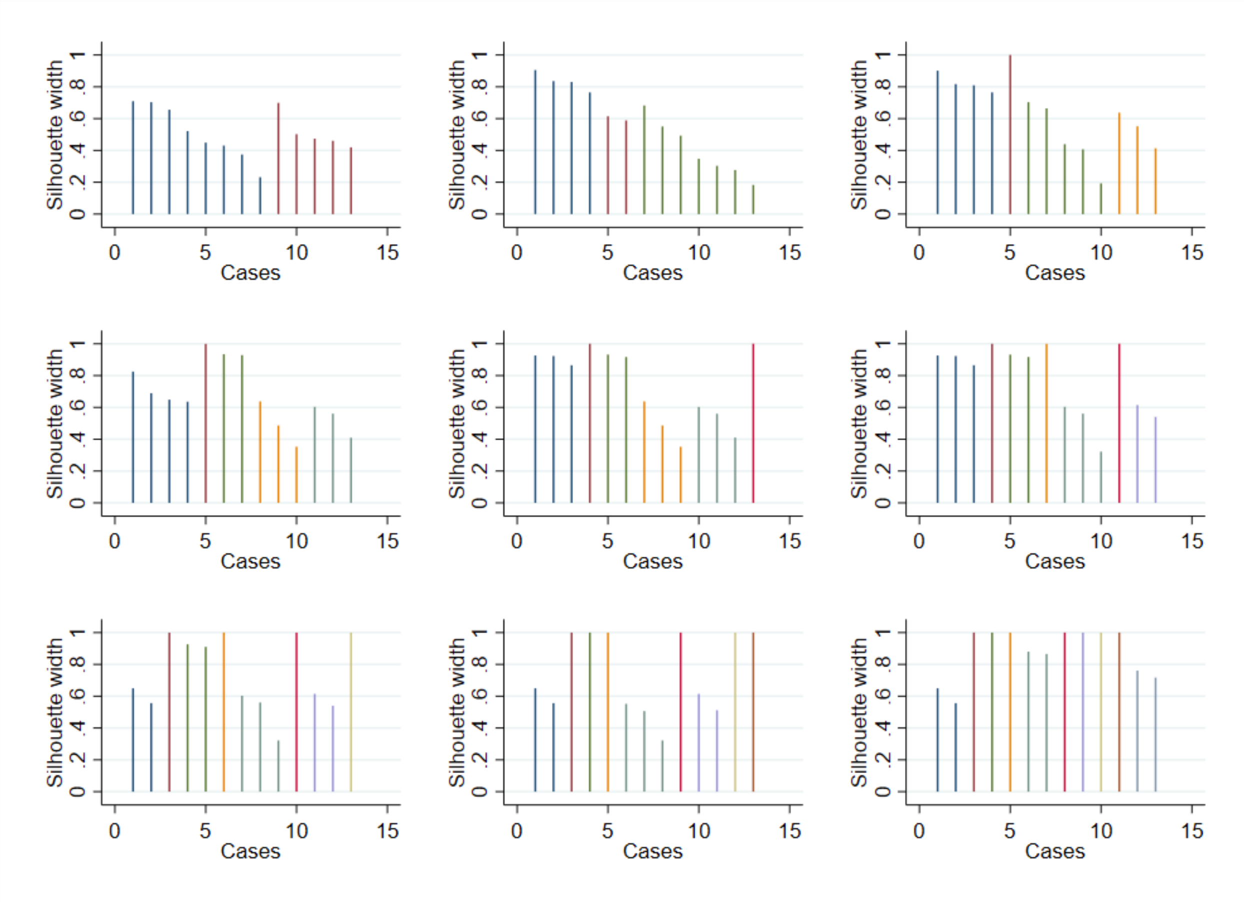
[1987] James, G., Witten, D., Hastie, T., and R. Tibshirani (2013). *An Introduction to Statistical Learning: With Applications in R*, Springer New York.

[1988] Makles, A. (2012). Stata tip 110: How to get the optimal k-means cluster solution, *The Stata Journal*, 12 (2), pp. 347 – 351.

A further way to choose the number of clusters to use is by considering the silhouette width.[1989] The silhouette width indicates how close an observation is to its own cluster compared to other clusters, and ranges between -1 and 1. A larger width suggests better clustering, while a negative width suggests that an observation is closer to another cluster than the cluster that it has been assigned to. A silhouette plot has been generated for k = 2, …, 10 to assess the clustering, using the Silhouette Stata module.[1990]

In the silhouette plot (Figure 5), the highest average silhouette width occurs for k=10. Other than when k=10, the mean and median silhouette width are both maximised and silhouette width is always positive when k=7. Given that only 13 countries are included in the analysis, the choice of a smaller number of clusters was deemed more meaningful. Therefore, countries are divided into 7 rather than 10 clusters.

Figure 5 Silhouette plot for cluster analysis of pension systems in selected OECD member countries.



Source: LE Europe analysis of OECD data

14.1.2. Results

The results of the cluster analysis can be visualised using principal component analysis. This technique reduces the dimensionality of the data while keeping as much of the variation as possible, which allows for the visualisation of many indicators using a smaller number of variables.[1991] Figure 6 shows the first two principal components, which capture over 75% of the

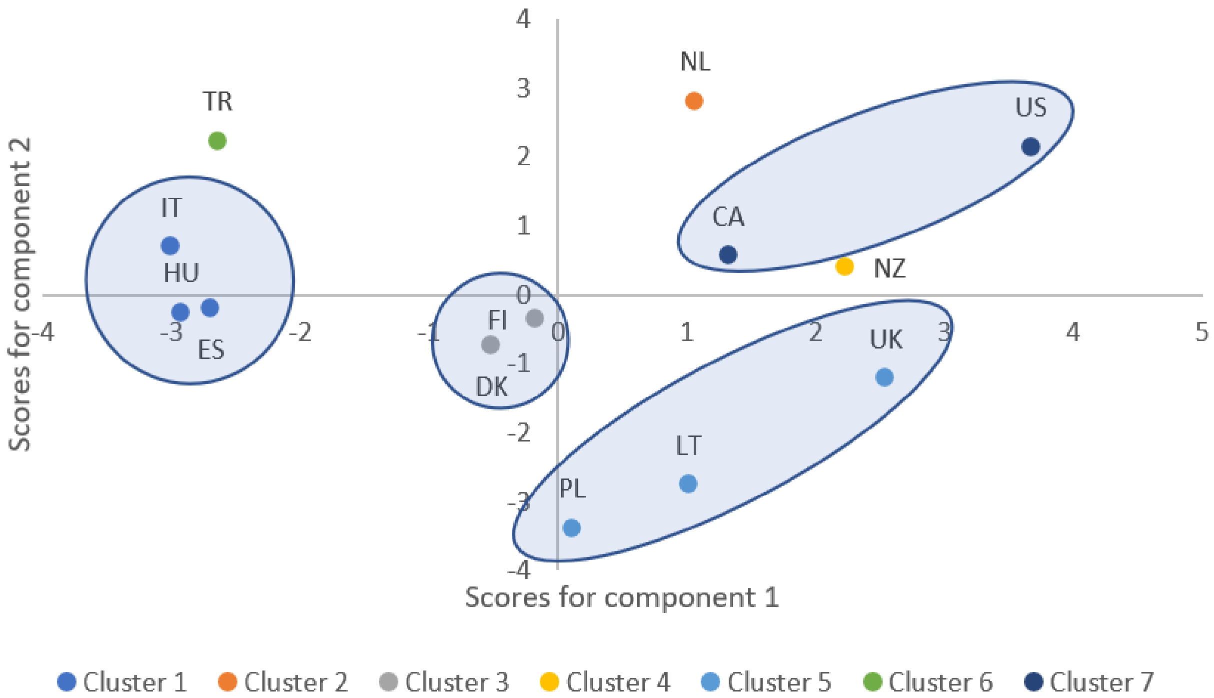
[1989] Rousseeuw, P. (1987). Silhouettes: A graphical aid to the interpretation and validation of cluster analysis. *Journal Of Computational And Applied Mathematics*, 20, pp. 53-65.

[1990] Halpin, B. (2016). SILHOUETTE: Stata module to calculate and graph silhouette width for cluster analysis, Statistical Software Components S458165, Boston College Department of Economics.

[1991] A PCA generates several sets (or components) of weights. Specifically, it produces the number of components equal to the number of underlying indicators. The first component explains the largest proportion of the variation of the underlying indicators, the second component explains the second largest proportion of the variation of the underlying indicators, and so on. Together, all components explain all of the variation of the underlying indicators.

variation in the indicators. As illustrated by the chart, most clusters are distinct from the others based on either the first or the second component. For instance, cluster 1 is similar to cluster 6 (which comprises only TR) with respect to the first component but distinct with respect to the second, and fairly similar to cluster 3 with respect to the second component, but distinct based on the first.

Figure 6 First two principal components from pension systems indicators in selected OECD member countries



Source: LE Europe analysis of OECD data

Figure 7 characterises the clusters with respect to contributions and coverage rates. Cluster 1 is the most homogeneous of all clusters with respect to these two indicators, with all countries comprising it (ES, HU, IT) displaying low coverage rates and contributions to autonomous pension funds. Cluster 1 is comprised of countries with both voluntary opt-in schemes and automatic enrolment. The voluntary nature and low participation rate of schemes in cluster 1 are reflected by the low average coverage rate of 19%. Interestingly, the average replacement rates are high which may be reflective of the relatively generous state pensions within these countries.

Turkey also has both low contributions and a low coverage rate. Turkey has automatic enrolment for all employees under the age of 45. However, opt out rates are high (about 54%[1992]). The high opt-out rates result in the system adopting the same characteristic as voluntary schemes under this analysis.

Countries in Cluster 5 (LT, PL, UK) display moderate-to-high coverage rates and mostly low contributions (except for the UK). All of these countries have automatic enrolment, although this was introduced only recently in PL and LT (2019 in both cases) and the high coverage rates in these two countries are therefore unlikely to be attributable to their auto-enrolment schemes.[1993]

Cluster 3 is characterised by a very high coverage rate and low contributions to autonomous pension funds.[1994] Both countries comprising this cluster have mandatory schemes. Finland's

[1992] Peksevim, S. and V. Akgiray (2019), *Reforming the Pension System in Turkey: Comparison of Mandatory and Auto-Enrolment Pension Systems in Selected OECD Countries*, www.oecd.org/pensions/Reforming-the-Pension-System-in-Turkey-2019.pdf.

[1993] For instance, the relatively high coverage rate in Poland is probably a result of the formerly mandatory open pension funds.

[1994] It should be noted that in Denmark, most occupational pensions are through pension insurance contracts rather than autonomous pension funds.

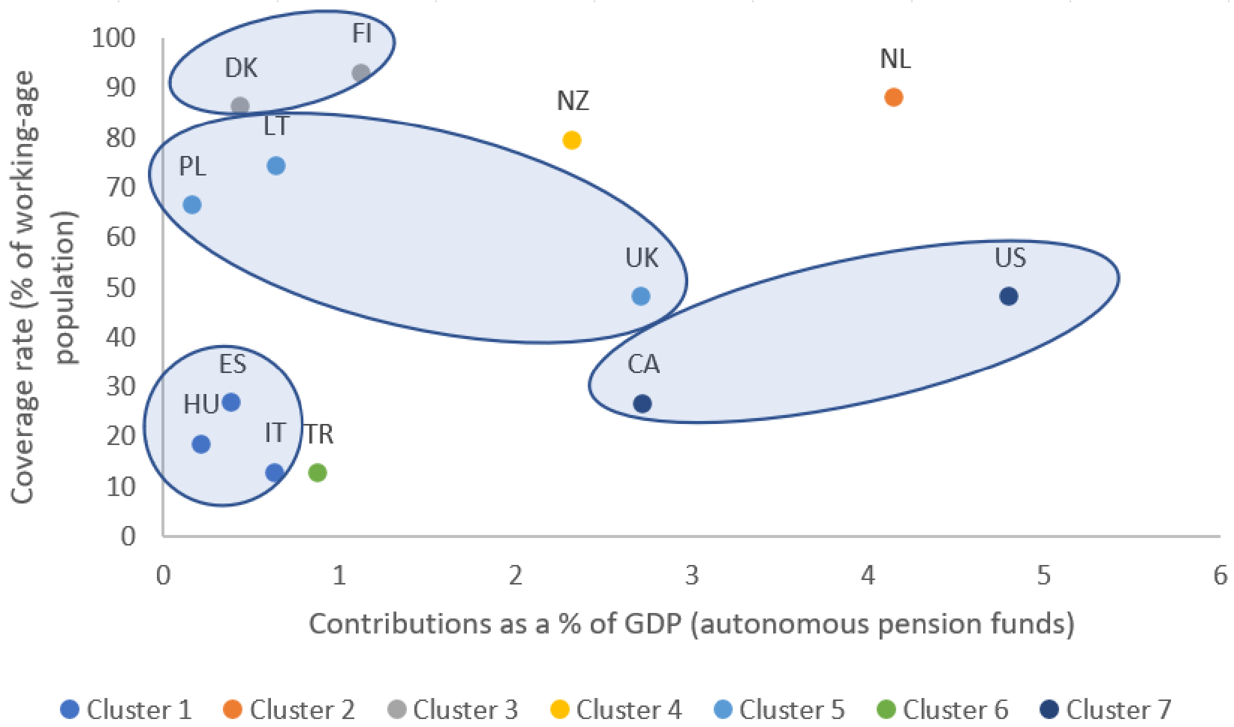
pension system respectively features a mandatory earnings-related pension, and a statutory contributory pension called the ATP Lifelong Pension covers almost all of Denmark's working-age population. In addition, quasi-mandatory occupational pension schemes established through collective bargaining agreements cover about 65% of Denmark's working-age population[1995] and about 85% of those in employment.[1996]

New Zealand, which has an automatic enrolment mechanism, is characterised by a high coverage rate and relatively high contributions. This analysis reflects the success of KiwiSaver in automatically enrolling and retaining individuals, resulting in it achieving a high coverage rate.

The Netherlands, which has quasi-mandatory occupational schemes established under industry-wide collective bargaining agreements, is characterised by both a high coverage rate and high contributions.

Cluster 7, which is made up of CA and US, is characterised by moderate coverage and relatively high contributions. In these two countries, employers have the option, not the obligation to offer an occupational pension plan. Both pension systems include voluntary-access auto-enrolment mechanisms (automatic-enrolment features can be applied to existing schemes in the US), but the use of automatic enrolment is not widespread. The voluntary nature of these plans is reflected in the low coverage rate in comparison to clusters 2, 3 and 4.

Figure 7 Contributions and coverage rate in selected OECD member countries



Note: Contributions are the sum of employee and employer contributions
Source: LE Europe analysis of OECD data

14.2. Individual-level analysis

Table 41 presents the results for the individual-level analysis for Italy including the coefficients and associated p-values for year dummies.

The models presented in Table 41 are as follows:

[1995] OECD (2020), 'Pension Markets in Focus 2020'.

[1996] OECD (2019), *Country profile: Denmark*, 'OECD Pensions at a Glance 2019'. Available at https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Denmark.pdf.

- Model (1) includes the auto-enrolment dummy as the only predictor in the fixed-effects model.
- Model (2) adds age, the square of age and the log of gross cash or near cash income to (1).
- Model (3) adds time dummies to model (2).
- Model (4) adds an interaction term between age and the log of gross cash or near cash income to (3).
- Model (5) estimates model (3) on only women.
- Model (6) estimates model (3) on only men.
- Model (7) adds dummies for each occupation in the occupation variable that exists in 2011 and before to model (3).
- Model (8) adds dummies for each occupation in the occupation variable that exists in 2011 and after to model (3).
- Model (9) adds temporary worker status as an additional predictor to (3).
- Model (10) estimates (3) on the sample of model (9).
- Lastly, model (11) estimates model (3) but uses a different classification of jobs as private sector in the construction of the auto-enrolment variable.

Table 41 Fixed effects results - Dependent variable = Gross contributions to a personal pension plan as a percentage of gross cash or near-cash income

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
Automatic enrolment	0.0245 (0.755)	0.0281 (0.753)	-0.125 (0.535)	-0.126 (0.533)	-0.0907 (0.750)	-0.254 (0.357)	-0.0978 (0.500)	-0.0342 (0.951)	-0.128 (0.525)	-0.122 (0.545)	-0.0494 (0.714)
Age		0.340** (0.0379)	0.353* (0.0750)	0.331 (0.105)	0.307 (0.223)	0.388 (0.190)	0.267 (0.212)	0.631* (0.0624)	0.349* (0.0770)	0.364* (0.0663)	0.351* (0.0761)
Age^2		-0.0039** (0.0362)	-0.0034* (0.0639)	-0.0035* (0.0650)	-0.00288 (0.277)	-0.00394 (0.127)	-0.00044 (0.820)	-0.0073** (0.0311)	-0.00338* (0.0671)	-0.00355* (0.0547)	-0.00342* (0.0645)
Log(gross cash or near cash income)		-0.630*** (0.00003)	-0.617*** (0.00004)	-0.720* (0.0861)	-0.479*** (0.00133)	-0.721*** (0.00237)	-0.567*** (0.00046)	-0.676** (0.0200)	-0.500*** (0.00038)	-0.499*** (0.00038)	-0.618*** (0.00004)
age # log(gross cash or near cash income)				0.00257 (0.779)							
Temporary worker status									-0.401** (0.0315)		
Year = 2006			0.382 (0.783)	0.377 (0.786)	0.150 (0.929)	0.456 (0.828)	0.719 (0.387)		0.603 (0.666)	0.536 (0.700)	0.447 (0.746)
Year = 2007			0.498 (0.690)	0.495 (0.692)	0.155 (0.919)	0.756 (0.690)	0.644 (0.327)		0.667 (0.596)	0.609 (0.627)	0.489 (0.696)
Year = 2008			0.498 (0.660)	0.495 (0.662)	0.0928 (0.947)	0.810 (0.636)	0.482 (0.329)		0.616 (0.590)	0.560 (0.623)	0.490 (0.666)
Year = 2009			0.400 (0.695)	0.398 (0.696)	0.102 (0.936)	0.640 (0.676)	0.224 (0.507)		0.479 (0.641)	0.429 (0.676)	0.394 (0.700)
Year = 2010			0.399 (0.677)	0.397 (0.679)	0.0175 (0.988)	0.706 (0.623)	0.118 (0.649)		0.461 (0.633)	0.421 (0.663)	0.393 (0.682)
Year = 2011			0.532 (0.511)	0.531 (0.512)	0.235 (0.811)	0.780 (0.526)			0.588 (0.471)	0.551 (0.499)	0.535 (0.509)
Year = 2012			0.542 (0.430)	0.541 (0.431)	0.101 (0.904)	0.907 (0.383)		0.0690 (0.781)	0.591 (0.393)	0.561 (0.417)	0.545 (0.427)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
Year = 2013			0.637	0.636	0.291	0.919		0.227	0.674	0.653	0.640
			(0.268)	(0.269)	(0.682)	(0.291)		(0.562)	(0.245)	(0.260)	(0.265)
Year = 2014			0.693	0.693	0.456	0.887		0.322	0.725	0.711	0.695
			(0.132)	(0.132)	(0.445)	(0.193)		(0.542)	(0.119)	(0.126)	(0.131)
Year = 2015			0.203	0.203	0.168	0.226		-0.0612	0.217	0.211	0.203
			(0.476)	(0.476)	(0.626)	(0.604)		(0.935)	(0.449)	(0.461)	(0.475)
Year = 2016			-0.305*	-0.305*	-0.367*	-0.253		-0.513	-0.301*	-0.305*	-0.304*
			(0.0746)	(0.0736)	(0.0582)	(0.349)		(0.559)	(0.0802)	(0.0759)	(0.0750)
Year = 2017								-0.143			
								(0.887)			
Occupation	No	No	No	No	No	No	Prior to 2012	From 2011	No	No	No
Constant	0.628***	-0.0787	-1.932	-0.968	-2.239	-6.645	-3.681	-9.233	-5.230	-5.426	-3.866
	(0)	(0.983)	(0.775)	(0.897)	(0.775)	(0.405)	(0.579)	(0.262)	(0.337)	(0.320)	(0.479)
Time dummies	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	60,297	60,297	60,297	60,297	27,340	32,957	32,928	30,780	58,864	58,864	60,143
Number of individuals	40,855	40,855	40,855	40,855	18,610	22,251	22,432	21,835	39,769	39,769	40,769
R-squared	0.736	0.736	0.737	0.737	0.758	0.717	0.837	0.715	0.725	0.724	0.742

14.3. Multi-criteria analysis

To derive a score for each best practice, LE Europe's team assessed each practice against four key criteria (namely, the relative importance of each best practice in the functioning of an auto-enrolment pension scheme and the impact of the practice on participation, savings and returns), which was informed by the desk research and consulations with stakeholders undertaken as a part of this study.

In addition, scores were also collected using an online survey where all workshop participants, as well as experts who had been unable to attend the live workshop, were invited to participate. In order to undertake the MCA, each criteria question was designed to record a numerical score as follows:

1) Please rate the importance of *[Insert best practice]* on a scale of 1-10, where: 1 = Not important at all and 10 = Extremely important. In cases where the respondent did not consider the feature as a best practice, they were given the option to select "0 = Not considered a best practice".
2) In your view, if *[Insert best practice]* was implemented, how negative/positive would the impact be on participation? Please rate on a scale of 1 -5, where 1 = Extremely negative, 3 = neither negative nor positive, and 5 = Extremely positive.
3) In your view, if *[Insert best practice]* was implemented, how negative/positive would the impact be on pension savings? Please rate on a scale of 1 -5, where 1 = Extremely negative, 3 = neither negative nor positive, and 5 = Extremely positive.
4) In your view, if *[Insert best practice]* was implemented, how negative/positive would the impact be on returns? Please rate on a scale of 1 -5, where 1 = Extremely negative, 3 = neither negative nor positive, and 5 = Extremely positive.

In cases where the respondent had no opinion on any of the above questions, they were also able to select the option "No opinion". A total of 13 survey responses were collected.

Table 42 below presents LE Europe's score based on the desk research and stakeholder consultations undertaken as a part of this study. Criteria weights for each stage are also presented.[1997]

Table 42 Scores based on LE Europe's assessment, by best practice and survey question

	Criteria			
Best practices	Importance (0 to 10)	Impact on participation (1 to 5)	Impact on pension savings (1 to 5)	Impact on returns (1 to 5)
Implementation of auto-enrolment pension schemes				
Criteria weights	50%	16.67%	16.67%	16.67%
Establish consensus	10.00	5.00	3.00	3.00
Define policy goals	10.00	5.00	3.00	3.00
Risk-based supervision	10.00	3.00	3.00	5.00
Phased introduction	10.00	5.00	3.00	3.00
Information campaigns	8.00	5.00	3.00	3.00
Participation decision				
Criteria weights	50%	30%	10%	10%
Mandatory access provision	10.00	5.00	3.00	3.00
Minimum eligible age of at most 18 years old	7.00	4.00	4.00	4.00

[1997] The rationale for the choice of criteria weights is presented in section 9.4.2 of Annex 1.

Best practices	Criteria			
	Importance (0 to 10)	Impact on participation (1 to 5)	Impact on pension savings (1 to 5)	Impact on returns (1 to 5)
Inclusion of self-employed workers	6.00	4.00	3.00	3.00
Earnings triggers	8.00	3.00	3.00	3.00
No waiting period (minimum tenure requirement)	10.00	4.00	3.00	3.00
Voluntary opt-in	6.00	4.00	3.00	3.00
Automatic re-enrolment	8.00	4.00	3.00	3.00
Employer contributions	10.00	5.00	4.00	3.00
Fixed government contributions	8.00	4.00	4.00	3.00
Mandatory access provision	10.00	5.00	3.00	3.00
Accumulation phase: Fund choice				
Criteria weights	50%	10%	15%	25%
Establishment by the state of a low-cost provider	10.00	4.00	3.00	5.00
Competent Authority authorisation of providers	9.00	3.00	3.00	5.00
Constraint on the number of investment strategies (also known as 'funds') offered per provider	8.00	3.00	3.00	4.00
The presence of a default investment strategy (or 'default fund')	10.00	4.00	3.00	5.00
Default fund features - capped cost, use of life-cycle investment strategies, no joining fee	10.00	3.00	3.00	5.00
Accumulation phase: Growing entitlements within funds				
Criteria weights	50%	10%	20%	20%
Measures to avoid the proliferation of small pots	8.00	4.00	4.00	4.00
Default contribution rates	10.00	5.00	4.00	3.00
Contribution holidays	8.00	3.00	2.00	3.00
Centralised administration	8.00	3.00	3.00	4.00
Ease of access to costs and charges information	9.00	3.00	3.00	4.00
Transparent presentation of costs and charges	9.00	3.00	3.00	4.00
Governance in the best interests of pension scheme members	9.00	3.00	3.00	4.00
Design and implementation of solidarity clauses	8.00	3.00	3.00	3.00
Decumulation phase				
Criteria weights	50%	10%	10%	30%
The transition from accumulation to decumulation	9.00	3.00	3.00	3.00
Default option	10.00	3.00	3.00	3.00
Signposting service for accessing advice	7.00	3.00	3.00	3.00
Review of advice sector by Competent Authorities	6.00	3.00	3.00	3.00
Early access	8.00	3.00	3.00	3.00

Table 43 below presents the average score for each best practice and criterion based on the survey responses received from the online survey. Criteria weights for each stage are also presented.

Table 43 Average score based on survey responses, by best practice and survey question

	Criteria			
Best practices	Importance (0 to 10)	Impact on participation (1 to 5)	Impact on pension savings (1 to 5)	Impact on returns (1 to 5)
Implementation of auto-enrolment pension schemes				
Criteria weights	50%	16.67%	16.67%	16.67%
Establish consensus	8.75	4.64	4.40	3.50
Define policy goals	8.62	4.25	4.08	3.60
Risk-based supervision	6.83	3.27	3.60	3.70
Phased introduction	6.75	3.73	3.40	3.25
Information campaigns	8.31	4.23	4.08	3.20
Participation decision				
Criteria weights	50%	30%	10%	10%
Mandatory access provision	7.27	4.42	4.25	3.78
Minimum eligible age of at most 18 years old	6.38	3.77	4.09	3.75
Inclusion of self-employed workers	6.75	4.09	4.00	3.13
Earnings triggers	5.17	2.70	3.11	3.00
No waiting period (minimum tenure requirement)	7.77	4.33	4.27	3.44
Voluntary opt-in	7.33	4.27	3.90	3.25
Automatic re-enrolment	6.38	4.00	3.75	3.40
Employer contributions	6.36	4.17	4.33	3.70
Fixed government contributions	6.31	4.00	3.92	3.09
Mandatory access provision	7.27	4.42	4.25	3.78
Accumulation phase: Fund choice				
Criteria weights	50%	10%	15%	25%
Establishment by the state of a low-cost provider	4.42	3.44	3.63	3.67
Competent Authority authorisation of providers	7.75	3.91	3.78	3.82
Constraint on the number of investment strategies (also known as 'funds') offered per provider	6.92	3.67	3.73	3.36
The presence of a default investment strategy (or 'default fund')	8.46	4.15	4.17	3.92
Default fund features - capped cost, use of life-cycle investment strategies, no joining fee	7.31	3.75	3.82	3.73
Accumulation phase: Growing entitlements within funds				
Criteria weights	50%	10%	20%	20%
Measures to avoid the proliferation of small pots	7.58	3.64	4.00	3.78
Default contribution rates	7.23	4.08	3.92	2.91
Contribution holidays	5.92	3.73	2.80	2.56
Centralised administration	7.33	3.64	3.60	3.78

Best practices	Criteria			
	Importance (0 to 10)	Impact on participation (1 to 5)	Impact on pension savings (1 to 5)	Impact on returns (1 to 5)
Ease of access to costs and charges information	8.25	4.00	3.91	3.70
Transparent presentation of costs and charges	8.82	4.00	4.18	3.60
Governance in the best interests of pension scheme members	8.62	3.77	3.83	3.82
Design and implementation of solidarity clauses	3.45	3.00	2.70	2.75
Decumulation phase				
Criteria weights	50%	10%	10%	30%
The transition from accumulation to decumulation	7.38	3.58	3.92	3.67
Default option	6.77	3.25	3.55	3.40
Signposting service for accessing advice	5.83	3.64	3.55	3.33
Review of advice sector by Competent Authorities	6.58	3.27	3.20	3.40
Early access	7.62	4.15	3.36	2.67

Table 44 Best practices scoreboard – Sensitivity analysis

	Overall assessment score[1]			
	Baseline	Sensitivity check 1	Sensitivity check 2	Sensitivity check 3
Scoring weights	LE Europe scoring = 50% Survey scores = 50%	LE Europe scoring = 75% Survey scores = 25%	LE Europe scoring = 25% Survey scores = 75%	LE Europe scoring = 50% Survey scores = 50%
Criteria weights	Different across each group	Different across each group	Different across each group	Equal across groups and criterion
Implementation of auto-enrolment pension schemes				
Establish consensus	High	High	High	Medium
Define policy goals	High	High	High	Medium
Risk-based supervision	Medium	High	Medium	Medium
Information campaigns	Medium	Medium	High	Medium
Phased introduction	Low	Low	Low	Low
Participation decision				
Mandatory access provision	High	High	High	High
No waiting period (minimum tenure requirement)	High	High	High	Medium
Employer contributions	High	High	Medium	High
Automatic re-enrolment	Low	Low	Low	Low
Fixed government contributions	Low	Low	Low	Medium
Voluntary opt-in	Low	Low	Medium	Low
Minimum eligible age of at most 18 years old	Low	Low	Low	Medium

	Overall assessment score[1]			
	Baseline	Sensitivity check 1	Sensitivity check 2	Sensitivity check 3
Scoring weights	LE Europe scoring = 50% Survey scores = 50%	LE Europe scoring = 75% Survey scores = 25%	LE Europe scoring = 25% Survey scores = 75%	LE Europe scoring = 50% Survey scores = 50%
Criteria weights	Different across each group	Different across each group	Different across each group	Equal across groups and criterion
Inclusion of self-employed workers	Low	Low	Low	Low
Earnings triggers	Low	Low	Low	Low
Accumulation phase: Fund choice				
The presence of a default investment strategy (or 'default fund')	High	High	High	High
Default fund features - capped cost, use of life-cycle investment strategies, no joining fee	High	High	High	Medium
Competent Authority authorisation of providers	Medium	Medium	High	Medium
Establishment by the state of a low-cost provider	Low	Medium	Low	Low
Constraint on the number of investment strategies (also known as 'funds') offered per provider	Low	Low	Low	Low
Accumulation phase: Growing entitlements within funds				
Transparent presentation of costs and charges	High	High	High	Medium
Governance in the best interests of pension scheme members	High	Medium	High	Medium
Ease of access to costs and charges information	High	Medium	High	Medium
Default contribution rates	High	High	High	High
Measures to avoid the proliferation of small pots	High	Medium	High	High
Centralised administration	Medium	Medium	Medium	Medium
Contribution holidays	Low	Low	Low	Low
Design and implementation of solidarity clauses	Low	Low	Low	Low
Decumulation phase				
The transition from accumulation to decumulation	High	High	High	High
Default option	High	High	High	Medium
Early access	Medium	Medium	Medium	Medium
Signposting service for accessing advice	Low	Low	Low	Low
Review of advice sector by Competent Authorities	Low	Low	Low	Low

Note: [1] The overall assessment score is separated into three groups which were informed by the performance score for each best practice that were calculated using the MCA TOPSIS method. High = High importance and/or impact, Medium = Medium importance and/or impact and Low = Low importance and/or impact. Scores are relative so a “Low” score should be considered relative to a “High” score. See section 10.4.2 for further details on the methodology.

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