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An Analysis of International Pension Reforms and Supportive Factors

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Executive Summary

Two broad classifications of publicly funded pension systems first emerged across Europe in the 19th century – Bismarckian and Beveridgean. In the initial post-WWII period up to the early 1980's, both these systems expanded coverage as well as the level of benefits to be paid.

From the 1990's onwards, the increasing cost of publicly funded pension benefit payments emerged as a significant challenge for many countries' overall financial sustainability.

Based on an analysis of the EU 15 countries in 2000, the EU Commission estimated that, if the prevailing pension benefits were maintained at 2000 levels, contributions to publicly funded pensions systems would need to increase from an average of 16% of gross pay levels to 27% by 2050.

The vast majority of EU and OECD countries have implemented expenditure-reducing pension reforms in the period since. The most common type of expenditure reducing pension reforms implemented across Europe since 2000 have been directed at increasing effective retirement ages.

Other public pension reforms introduced since 2000 include: lowering pension accrual rates, lowering the reference salary on which pensions are based, tightening eligibility requirements before pensions become payable and moving towards a policy of increasing pensions in payment in line with prices instead of wages. Many countries have also implemented reforms intended to transfer the risk of higher future pension costs away from public funds (as well as younger generations).

While some countries have implemented reforms within the existing pension structures, ("parametric changes"), other countries have adopted a hybrid multi-pillared structure, which is emerging as an international point of convergence. This multi-pillared pensions structure was first recommended by the World Bank in the mid-1990s and comprises three main elements;

1. A universal basic level of retirement income (intended to avoid old-age poverty),
2. A mandatory earnings related occupational pension pillar (intended to induce consumption smoothing), and
3. A "defined contribution" individual retirement savings facility (intended to allow individuals to increase retirement saving based on personal preference and ability).

The main factors that have been identified as leading to the implementation of pension reforms are;

1. Ageing demographics,
2. High levels of publicly-funded pension obligations,
3. The implementation of pension reforms in "peer" countries, and
4. Unfavourable current economic and fiscal conditions.

Key Findings

- Empirical evidence reveals that the total incidence of pension reforms introduced in OECD countries between 1994 and 2017 was 70% higher than the preceding 23-year period. The composition of pension reforms also changed, with most pension reforms since 1993 focused on delivering cost savings.

- Academic research has identified that pension reforms that contain both cost-saving measures and cost-increasing measures tend to produce larger "net" savings relative to pension reforms that only contain cost-saving measures.

- Ireland currently has favourable demographics relative to European averages, with low proportions of our population aged over 65. However, Ireland's old-age to working-age ratio is projected to more than double by 2060 and will be proportionately closer to the OECD average.

- Based on 2018-European averages, Ireland had a lower level of accrued publicly funded pension obligations relative to the size of the economy (amounting to 256% of modified GNI) than European peer countries. However, these estimates are based on normal retirement ages of 67 from 2021, and 68 from 2028. The intended increases to the normal retirement age have subsequently been repealed.

- Social Insurance Fund (SIF) annual expenditure on pensions is projected to increase by a multiple of 4.6 between 2015 and 2055 (an increase of €26.1 billion expressed in 2017 prices). If such levels of expenditure on state pensions materialise, and PRSI contribution rates are not increased, then higher levels of funding from general taxation will be required. As a consequence, there will be less fiscal space available for investment in other social policies (e.g. reducing child poverty) or improving public services (e.g. health and education).

- In the context of COVID-19, Ireland's current and near term fiscal budget position is challenging (similar to other European countries) with an estimated deficit of 10.6% of modified GNI in 2020. Ireland's Government debt level as a proportion of economy in 2019 was significantly higher than the EU average (95.6% of modified GNI, 18% higher than the comparable EU level of 77.6%).

- Ireland has progress to make in achieving the multi-pillared approach recommended by the World Bank. The most apparent element for improvement being to increase coverage for occupational pension schemes for those employed in the private sector. However, despite the gaps in delivering this multi-pillared model, Ireland's system is currently very effective in achieving the goal of avoiding old-age poverty.

- The main advantages of fully achieving the World Bank model are – more sustainable public finances, improved actuarial and intergenerational fairness, and reduced exposure of retirement incomes to political risks.

- The need for reforming the Irish pension system has been flagged since before 2007. While a number of reforms have been implemented already, a number of other previously identified reforms remain outstanding. In this context, the increased implementation of sustainability-improving pension reforms across Ireland's peer countries combined with Ireland's rapidly dis-improving demographic trends, relatively high level of public debt, as well as current and near term economic and fiscal difficulties could serve as a supportive environment for implementing the outstanding required pension reforms.

1. Introduction

This paper analyses the increasing incidence of cost-saving pension reforms in EU and OECD countries, the main factors that caused such reforms to be implemented and how these currently compare for Ireland.

The paper is informed by a number of international pension policy / academic papers published mainly over the last 20 years. Where possible, data from Eurostat, the CSO, the OECD and the European Commission are utilised to present further context.

Most of the policy papers analysed do not distinguish between social security-type publicly funded pension schemes and public service occupational pension schemes. For this reason, where available and deemed relevant, this paper presents information for both Ireland's social security pension arrangements and Irish public service occupational pension schemes.

Section 2 provides a description of the data used in the paper and its limitations.

Section 3 commences with a summary of how European publicly funded pension systems developed historically with two differing broad structures emerging (Beveridgean and Bismarckian). This section then summarises European pension reforms since 2000.

Section 4 summarises an empirical analysis of the increasing incidence of pension reforms in OECD countries since 1993, as well as the increasing proportion of cost-saving reforms implemented. This section also discusses two important considerations not captured by this empirical analysis, namely the difficulty in reflecting the relative cost-saving or cost-increasing impact of each legislated pension reform, as well as the shortening time lag between when pension reforms are legislated and when the intended savings begin to be delivered.

Section 5 describes the multi-pillared pension structure first recommended by the World Bank in the mid-1990's. As many countries move away from the historical Bismarckian and Beveridgean pension structures towards this multi-pillared approach, this system is emerging as a point of international convergence. This section then provides an overview of Ireland's progress in implementing this multi-pillared model.

Section 6 describes pension reforms Ireland has recently implemented or commenced developing.

Section 7 presents Ireland's current standing in relation to the four main drivers of pension reforms; ageing populations, the level of accrued public pension obligations, peer implementation and current economic and fiscal conditions.

Section 8 provides a summary and the main findings of this paper.

2. Data

This paper utilises a number of economic and pension-related datasets provided by the CSO, Eurostat, the European Commission and the OECD.

Ireland's projected budgetary deficits are sourced from the Department of Finance and are highly sensitive to assumptions used around the near-term impacts of COVID-19 and Brexit.

The paper also incorporates data from academic papers. The classification of heterogeneous international pension reforms is subjective and, as a consequence, will reflect the judgement of the authors of those academic papers. This paper provides no guarantee as to the accuracy or completeness of this data, and accepts no responsibility for any errors or misrepresentations in the data presented from these academic papers.

3. The Evolution of European Publicly-Funded Pension Systems

Public pension systems first emerged across Europe in the 19th century and have continuously evolved since. There were initially two broad classifications of pension systems, with the UK and Scandinavian countries adopting flat-rate pension systems that were originally means-tested, but later became universal (the Beveridgean family). The countries that adopted Beveridgean type systems also tended to provide separate publicly funded occupational systems for public servants.

In contrast, German and southern European systems developed earnings-related publicly funded pension schemes (the Bismarckian family), that generally provided higher benefits at retirement but also required higher contributions over an individual's career. The Bismarckian model was later replicated in many Eastern European countries.

Both types of public pension systems were initially designed on a PAYG (Pay-As-You-Go) basis, where pension contributions from current employees and employers were used to fund the payment of benefits to current retirees.

The post-WWII period up to the 1990's saw the expansion of publically funded pension schemes in European and OECD countries. Over this period, measures were introduced to broaden public pension coverage to almost universal levels and to lower the age of eligibility to receive public pension payments. In summary, between the late 1940's and the early 1980's, pension systems emerged across Europe and OECD countries that led to most individuals having a reasonable expectation that public funds would provide a substantial level of income in the latter stages of life (after 60 years in most countries).

However, as life expectancy and the proportion of people eligible for retirement benefits increased, the snowballing level of public expenditure on pensions emerged as a serious risk to the sustainability of overall public finances for many European countries.

The initial response (i.e. during the 1980's) to the increased expenditure of the PAYG schemes was to increase the rates of contributions. As an example, the combined employer and employee mandatory pension scheme contributions in Germany increased from 16% of earnings in 1960 to 18% by 1980, and indeed increased further to 20.3% by 1998. Between 1986 and 1991, France also imposed higher pension contributions, with the rate employees paid increasing from 4.7% to 6.55%. The alternative approach, which was initially adopted by Italy (Bonoli and Palier, 2007), was to increase the contribution from general public expenditure (i.e. funded by general taxation).

These approaches may have been the most convenient at that time, but there were practical limits to both approaches. The EU Commission's analysis of pension benefits in the EU 15 member states in 2000 estimated that contributions would need to increase from the prevailing average level of 16% of total earnings to 27% of total earnings by 2050[1]. Such levels of contribution would clearly have distortionary impacts on labour markets[2].

Regarding the approach initially adopted by Italy, Boeri, T. and Tabellini, G. (2012) estimated that pension expenditure alone imposed a 45% taxation of labour in Italy, with relatively little resources to provide for other social measures such as unemployment insurance.

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[1] EU Commission (2001) *Reforms of Pension Systems in the EU – An Analysis of the Policy Options.*
[2] One element of the German reforms introduced in 2001 (the "Riester reforms") was to stabilise the rate of pension contributions payable in respect of current and future workers. A <u>maximum limit</u> for pension contributions of 22% until 2030 was established (Borsch-Supan *et al* (2015)).

The EU Commission also reported that, if the level of pension benefits were maintained at 2000 levels, public expenditure on pension benefits would reach 17.6% of GDP for the EU 15 countries by 2050. Such levels were deemed unsustainable. In addition to this projected unsustainability, the issue of intergenerational fairness also emerged as a major political consideration.

Prior to the EU Commission's 2001 analysis, Germany (1989), Italy (1992) and France (1993) introduced reforms designed to reduce the level of publically funded pension benefits. These initial expenditure-reducing reforms, while pioneering in their direction, did not have the required sustainability-improving impact, primarily because of the time lag before they would become fully effective (e.g. 40 years in the case of Italy), but also because the intended reductions that would eventually be delivered were of a modest nature (Bonoli and Palier 2007).

Consequently, in concluding the 2001 analysis of publicly funded pension systems, the EU Commission strongly recommended that additional reforms were required. The vast majority of EU (and OECD) countries have introduced public expenditure-reducing pension reforms since then.

3.1. Post-2000 Pension Reforms

The most common direction of the European and OECD pension reforms implemented has been to increase the <u>effective retirement age</u>[3]. The EU Commission 2001 analysis, based on the 15 EU member states at that time, estimated that if the effective retirement age could be increased to 65, GDP would be 13% higher by 2050. Additionally if such a reform could be implemented, the future consumption of the working-age population was projected to be 11% higher, and the projected consumption of pensioners was 16% higher. Increasing effective retirement ages is also an intuitive and easily understood response to compensate for the higher costs of providing pension benefits caused by longer life-expectancies. Given such clear benefits and clear rationale, it is not surprising that the vast majority[4] of countries have implemented this policy.

Measures introduced to achieve a higher effective retirement age include the following:

- Increasing the normal retirement age,
- Removing options or making it more costly for individuals to retire before the normal retirement age, or
- Introducing (or increasing) incentives for working beyond the normal retirement age.

Other pension reforms introduced since 2000 include: lowering pension accrual rates, lowering the reference salary on which pension benefits are based, increasing eligibility requirements before pensions become payable and moving towards a policy of increasing pensions in payment in line with prices instead of wages.

Carone *et al* (2016) analyse the types of pension reforms introduced in EU countries since 2000. The authors categorised pension reforms into five groups:

1. Eligibility measures (e.g. pension ages, required contributory period)
2. Pension formula (e.g. accrual rates, valorisation, definition of pensionable earnings)

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[3] The OECD calculate the effective retirement age as the average age at which workers withdraw from the labour force. In most countries, the effective retirement age is below the normal age for receiving full retirement benefits.

[4] As of 2016, Luxembourg was the only exception in the EU.

3. Indexation (for pensions in payment)
4. Contributions / taxes
5. Schemes (merger or closure of pension schemes).

Figure 1: Categorisation of EU Pension Reforms since 2000[5]
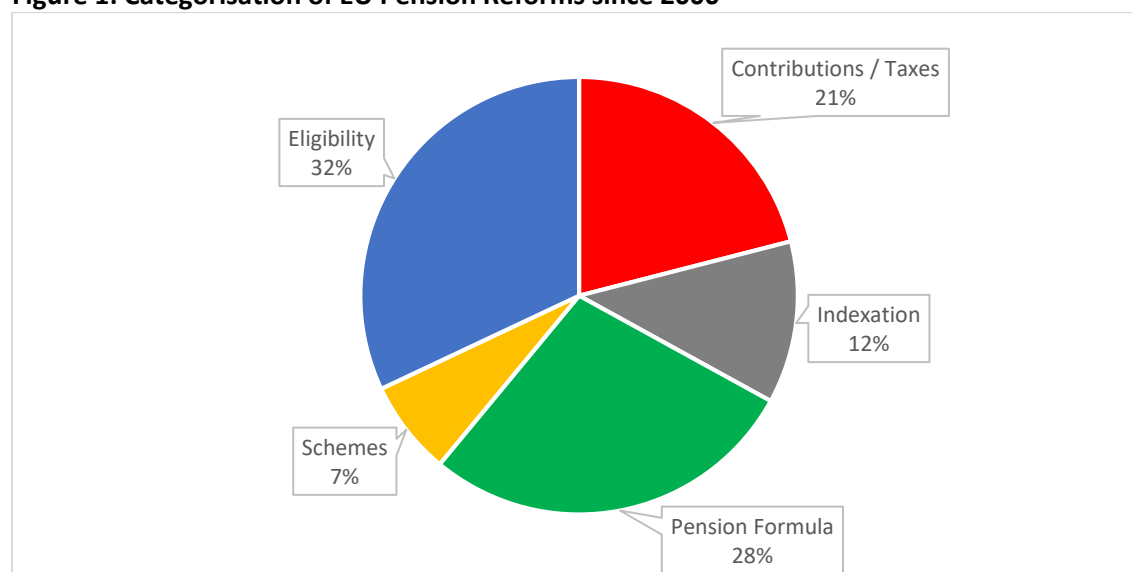
Source: Carone *et al* (2016)

It should also be noted that, despite the clear policy rationale for implementing expenditure-reducing pension reforms, many countries have recently suspended or reversed the implementation of such measures. The EU Commission (2001) identified one element of political risk inherent in publicly funded PAYG pension systems is an excessive responsiveness of promised long-term pension benefits based on short-term improvements in Governments' fiscal positions. Consistent with this, the OECD Pensions at a Glance 2019 reported that the recovery from the 2008 financial crisis has resulted in desires in some countries to backtrack on pension reforms. To illustrate, since 2017, minimum pension levels were increased in Austria, France, Italy and Slovenia. Additionally, Italy, the Netherlands and Slovakia expanded early-retirement options or limited previously announced increases in the retirement age, while Spain suspended / delayed the implementation of some reforms measures[6].

The OECD cautioned that, although financial pressures on pension systems were amplified by the financial crisis, they reflected structural weaknesses within the pension systems. The OECD further stated that:

> "*Backtracking on reforms that address long-term needs may leave pension systems less resilient to economic shocks in the future and unprepared to face population ageing*"[7].

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[5] In contrast to most data in this paper, the analysis by Carone *et al* includes some measures that applied to private pension systems. For this reason readers are encouraged to focus on the relative proportions rather than the absolute values.

[6] OECD Pensions at a Glance 2019.

[7] *Ibid.*

4. Empirical Analysis of the Increasing Incidence and the Changing Nature of International Pension Reforms

Beetsma *et al* (2019) developed a comprehensive dataset of pension reforms introduced across 23 of the initial OECD countries between 1970 and 2017. The authors analysed all legislated pension reforms that were expected to impact the intertemporal government budget. Reforms that contain only measures that will increase public expenditure were categorised as "expanding only". Reforms that contain only measures that will reduce public expenditure were categorised as "contracting only". Reforms that contain both measures that will increase public expenditure as well as measures that will reduce public expenditure were categorised as "expanding and contracting".

Figure 2 illustrates the increasing incidence of pension reforms from 1994 onwards, as well as the changing nature of the reforms implemented.

Figure 2: Changing Composition of Pension Reforms in OECD Countries 1970 - 2017
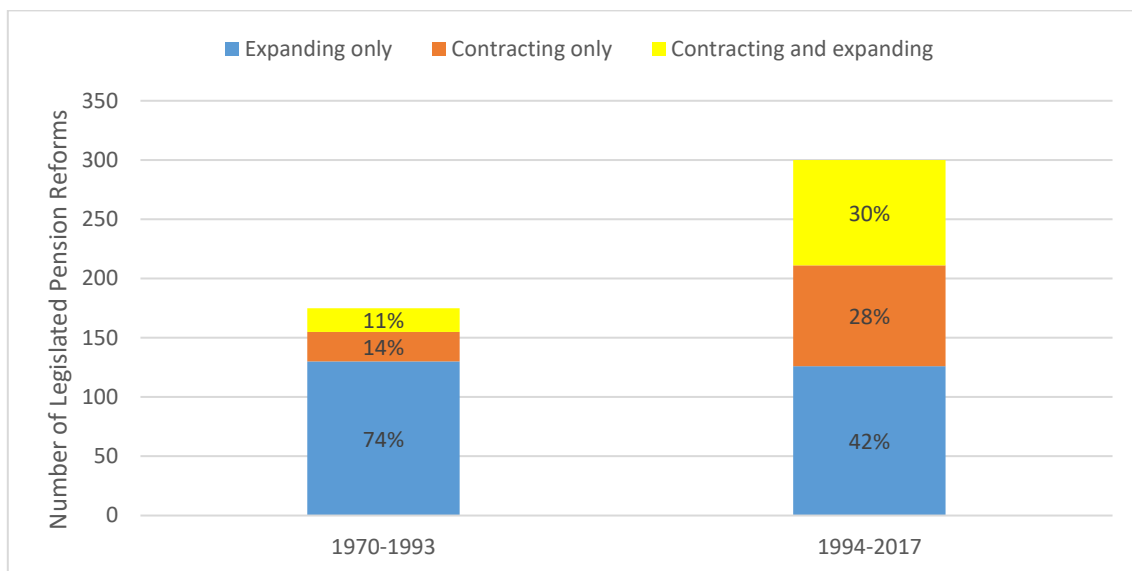
The total incidence of pension reforms introduced between 1994 and 2017 was 70% higher (125 more reforms) than the preceding 23-year period. While "expanding only" pension reforms as a proportion of total pension reforms was 42% between 1994 and 2017, compared to 74% between 1970 and 1993. Additionally, the number of "contracting and expanding" reforms increased more than four-fold in the 1994-2017 period.

Importantly, in their analysis of "contracting and expanding reforms", the authors determined that, on a net basis, the "envisaged degree of contraction regularly exceed that of 'contracting only' measures". This supports the concept that the inclusion of some compensatory elements in pension reforms can minimise or appease resistance to implementing more substantial cost-saving measures.

4.1. Further Considerations to Empirical Results

Although the above analysis usefully illustrates the increasing incidence and changing nature of pension reforms, there are two important elements that require deeper consideration. Firstly,

Beetsma *et al*'s analysis does not distinguish between the significance of the reforms implemented, with minor reforms represented with the same weight as substantial reforms. Incorporating the degree of relative costs and savings of pension reforms on a consistent and robust basis for such an extensive and detailed data set is not practicable. However, an understanding of the dominating trend towards lower pension expenditure can be gained from Figure 3, which compares 2040 pension expenditure as a proportion of GDP for the EU 15 countries as projected by the EU Commission in 2001 and in 2018. Due to the level of assumptions necessarily incorporated in such projections, readers are encouraged to focus on the overall trend rather than the absolute figures.

Figure 3: Declining EC 2001 & 2018 Projections for Pension Expenditure in 2040
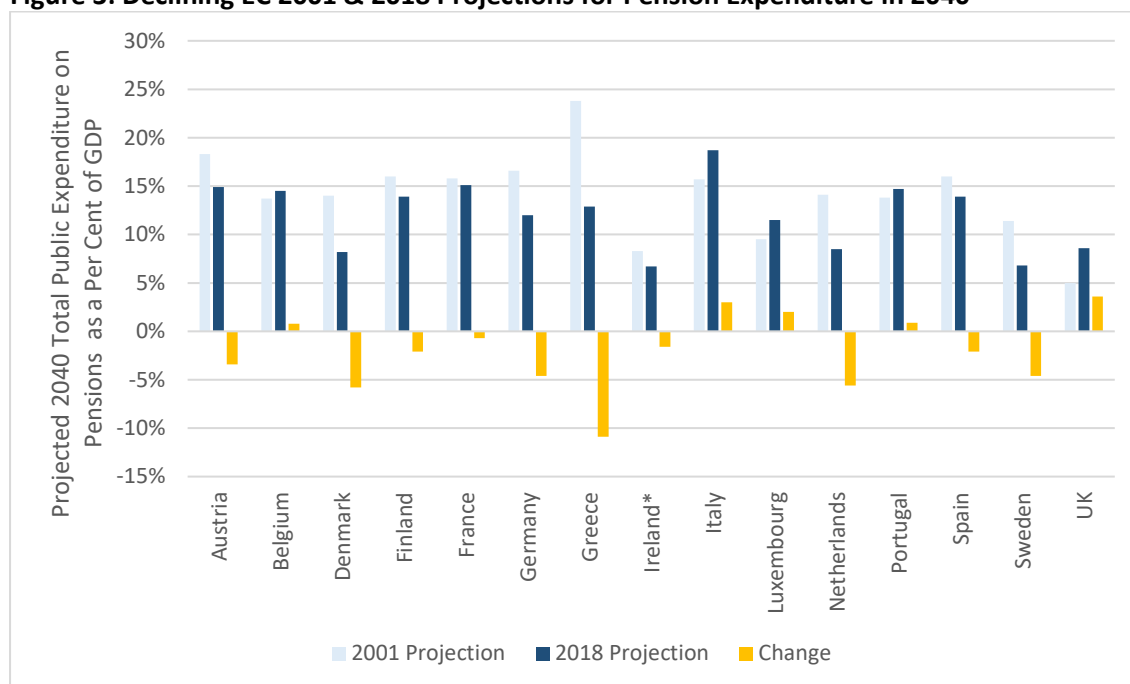
Source: EU Commission (2001 and 2018)

* Per Cent reported for Ireland is based on GNP in 2001 and GDP in 2018

For the 15 EU countries that 2040 projections of public pension expenditure were published in 2001, the comparable 2018-published projections were lower by an average of 2.1% of GDP. Of this sample, 10 countries had lower projections, with Greece having the largest decline at -10.9% of GDP. Of the five countries that had higher projected expenditure in the 2018 projections, the UK had the largest increase at +3.6% of GDP.

A second consideration of Beetsma *et al*'s analysis is the lag between when pension reforms are legislated and when the reforms will become effective is not captured. An alternative approach would require various assumptions to determine the degree of implementation over time with inherent inconsistency, so there are clear advantages to basing such a comprehensive analysis solely on when reforms are legislated. However, an understanding of this lag and how it has shortened may be gained from analysing some of the more significant structural pension reforms. As an example, the Italian reforms introduced in 1992 and 1995 had lags of 40 years before full implementation. In contrast, the 2011 Italian reforms (the "Fornero reforms") were intended to achieve significant savings over the following 10 years. The Fornero reforms also fast-tracked the implementation of the 1992 and 1995 reforms that were first introduced with lags of 40 years, instead becoming effective from 2012. Further details on the time lag of recent pension reforms are provided in Appendix 1.

Perhaps the clearest illustration of the policy intention to shorten the time lag before sustainability improving pension reforms become effective, as well as sharing the burden of pension reforms across generations, is the adoption of automatic stabilisers within pension structures by over half of all EU countries (as of 2015). Such stabilisation measures can be categorised into three broad groups;

- linking the normal retirement age to increased life expectancy,
- reducing the pension value to reflect longer life expectancy, and
- automatic balancing mechanisms that link changes to pension in payment values to factors such as economic growth, the change in pension contributions paid by employees relative to benefit pay-outs, and the number of employees relative to the number of pension recipients.

These stabilisation mechanisms were intended to create a default option that publicly funded pension benefits would adjust as an "automatic" (and depoliticised) response to future demographic and economic changes.

5. Convergence of International Pension Systems

While some countries implemented sustainability-improving reforms within existing pension structures ("parametric changes"), many other countries instead moved towards a multi-pillared, hybrid structure first recommended by the World Bank in the mid-1990s. This multi-pillared structure comprises three[8] main elements as follows:

1. A lower publicly funded basic pension, primarily designed to avoid old-age poverty (but may also be intended to redistribute wealth from high income to low income individuals).
2. Wider (often mandatory or opt-out[9]) occupational pension coverage where employers and employees both contribute to retirement incomes and the benefits payable are linked with career earnings. This element induces consumption smoothing over an individual's life-time and also ensures a degree of "actuarial fairness"[10].
3. Increased incentives for individuals to set up private pension arrangements to further boost retirement incomes (and reduce dependency on public funds). This element allows individuals to tailor their retirement savings to the individual's preference and/or ability.

This hybrid structure is emerging as an international point of convergence[11] as countries move away from (or in between) the previous classification of Beveridgean or Bismarckian type systems.

A clear benefit of this hybrid, multi-pillared system is the lower reliance on public funds and the associated improvements for the sustainability of public finances. In addition to this benefit, a multi-pillared system also efficiently reduces (or diversifies) several risks associated with pension systems.

For example, the provision of a universally available pension at a level intended to avoid poverty delivers a level of social insurance in old age. This element also reduces an individual's exposure to investment market risks and annuity risks associated with defined contribution pension schemes (or purely funded occupational Defined Benefit pension schemes).

Additionally, the requirement for both employers and employees to participate in an occupational pension scheme, while primarily designed to induce consumption smoothing over an individual's working career and retirement, also reduces exposure to the political risks inherent in publicly funded PAYG pension schemes.

The provision of a third tier voluntary element to pension provisions allows individuals to increase the amount saved over a career, thereby choosing a level of consumption smoothing that is aligned with the individual's preference and financial ability. This pillar will also further reduce an individual's exposure to political risks and rule changes inherent in publicly funded pension systems, as well as mitigating the risk of insolvency of occupational pension schemes.

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[8] Some pensions' literature describe this structure as having four pillars. The fourth pillar is based on the separation of specific old-age poverty-avoidance measures from the universally provided benefits.
[9] In the World Bank's initial design, this pillar was recommended to be mandatory, but many countries have incorporated an opt-out for employees.
[10] Lindbeck and Persson (2003) describe actuarial fairness as linking the value of benefits payable during retirement to the value of contributions made over a career.
[11] In their analysis of European pension reforms between 1990 and 2010, Arza and Kohli (2011) identify ten European countries that have implemented at least one measure to create a second or third pension pillar (Denmark, Finland, France, Germany, Hungary, Poland, Portugal, Italy, Sweden and the UK).

5.1. Ireland's Position Relative to the "World Bank Model"

The structure of Ireland's pension system is broadly aligned to the World Bank recommended multi-pillar structure, insofar as there is a presence of all three of the pillars.

In relation to the first pillar, the publicly funded State Pension (Contributory) is generally available to all citizens through their PRSI contributions. This is currently payable at an annualised value of €12,956 from 66 years of age. Individuals who are not entitled to the State Pension (Contributory) because of insufficient PRSI contributions over their working career may instead be entitled to the means-tested State Pension (Non-Contributory), which is payable at the slightly lower annualised value of €12,408 from 66 years of age[12]. These core elements of the first pillar are supplemented with a range of additional publicly funded payments such as the Household Benefits Package, the Fuel Allowance and the Living Alone Allowance, some of which are universally available while others are means-tested. Ireland can be considered to be currently achieving the intended purpose of the first pension pillar as Irish people aged over 65 are four times less likely to experience poverty compared to the Irish population as a whole[13].

In relation to pillar 2 (occupational pension schemes) and Pillar 3 (private / individual pension savings) of the World Bank model, Ireland has historically provided tax relief intended to incentivise individuals to save towards retirement. Based on Revenue data, the estimated annual cost of the tax relief towards pension contributions was in excess of €1.2 billion in 2018[14]. Despite the substantial cost of these tax incentives, the estimates of pillar 2 and pillar 3 pension coverage vary from less than 50%[15] to 60%[16] of the total working population. Within the overall figures for pension coverage, there is a clear discrepancy between the public sector (where membership of an occupational coverage is close to 100%) and the private sector (where combined coverage of Pillars 2 and Pillar 3 pensions has been estimated at 35%[17]).

Specifically in relation to Pillar 3, based on the 2019 survey results from the CSO, only 15% of workers between the age of 20 and 69 had private pension coverage. These survey results also report that 36% of the total population in employment who do not have pension coverage in a private pension scheme or an occupational pension scheme report the reason as "never got around to organising it", while 33% report affordability issues[18,19].

The Pensions Framework 2019-2023, as well as the Report of the Interdepartmental Pensions Reform & Taxation Group 2020 identify the relative complexity of private pension products as a

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[12] The basic value of these payments may be increased in value to reflect dependent family members or recipients attaining the age of 80. The value of the State Pension (Contributory) may be reduced to reflect lower PRSI contributions. The value of the State Pension (Non-Contributory) may be reduced where incomes exceed certain values.

[13] Roadmap of Pensions reform, 2018-2023.

[14] https://www.revenue.ie/en/corporate/documents/statistics/tax-expenditures/costs-tax-expenditures.pdf (comprising of tax relief on explicit employer pension contributions (€173.2 million), tax relief on employee pension contributions (€677.7 million) and contributions towards PRSA's and RACs (€241.3 million)

[15] Roadmap of Pensions reform, 2018-2023.

[16] https://www.cso.ie/en/releasesandpublications/ep/p-pens/pensioncoverage2019/

[17] Estimates of private pension scheme coverage is based on a range of datasets, with a number of assumptions required. Burke and Gilhawley (2018) estimate that, depending on the assumptions used, as well as the definition of the public service/sector, that private sector pension coverage could be as low as 30%.

[18] https://www.cso.ie/en/releasesandpublications/ep/p-pens/pensioncoverage2019/

[19] The 2020 CSO survey results reports comparable figures of 37% for "never got around to organising it" and 35% for affordability reasons.

possible explanation for low take-up of Pillar 3-type pension arrangements despite the tax incentives available.

Academic literature also offers the theory of "crowding out" as a further possible explanation for low private pension coverage in Ireland. In summary, this theory postulates that where publicly funded retirement benefits are sufficient to meet most individuals' retirement needs, an individual's desire to set up a personal pension fund is effectively "crowded out".

Ireland clearly has progress to make in achieving a multi-pillared pension system, with the most apparent area for improvement being to increase coverage for Pillar 2 pensions in the private sector. However, despite the existing gaps in delivering this model, Ireland's current approach is very effective in achieving the goal of avoiding old-age poverty.

The main advantages of fully achieving the World Bank model are – more sustainable public finances, improved actuarial and intergenerational fairness, and reduced exposure of retirement incomes to political risks.

6. Recent Sustainability-Improving Pension Reforms in Ireland

Ireland has historically followed different development paths for publicly funded pension structures than our European and OECD peers. For example, a universal Beveridgean type social security pension system was not achieved in Ireland until the 1970's[20].

However since 2010, Ireland has implemented (or commenced developing) a number of pension reforms that are variations of measures previously implemented in peer countries. This section summarises some of these reforms.

6.1. The Single Public Service Pension Scheme

Introduced from 2013, the Single Public Service Pension Scheme is a public service-wide occupational pension scheme (Pillar 2) that incorporates many of the cost-saving reforms previously implemented by European and OECD countries (e.g. CPI indexation of pension benefits, career average based benefits, later normal retirement ages). However, for most[21] of the public service, there will be a delay of 40 years before the introduction of this public service occupational pension scheme will deliver meaningful reductions in annual pension expenditure.

6.2. Increased Public Service Pension Contributions

The Public Service Pay and Pensions Act 2017 introduced the Additional Superannuation Contribution (ASC), commencing 1 January 2019. This legislation requires members of public service pension schemes with incomes over €34,500 to make additional contributions towards their pension benefits. In effect, this legislation transformed (with some ameliorations) the Pension-Related Deduction (PRD), which was previously introduced as a financial emergency measure, into a permanent additional public service pension scheme contribution.

6.3. The Auto-Enrolment Occupational Pension Scheme

Ireland is currently developing a national occupational pension scheme (the Auto-Enrolment Retirement Savings Scheme). Individuals not already part of an occupational pension scheme will be automatically enrolled into this scheme. The successful implementation of the Auto-Enrolment Occupational Pension scheme will increase Pillar 2 coverage in the private sector substantially and better deliver on the consumption smoothing and actuarial fairness goals of this pillar.

## 6.4. Increasing Retirement Ages

As illustrated in Figure 4, Ireland's effective retirement ages for both males and females were higher than the OECD averages between 1980 and 2008. However, as of 2018, Ireland's effective retirement ages have broadly been in line with OECD averages for both males and females.

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[20] The income ceiling for eligibility to a state pension was removed from 1974. Prior to this, high-earners were not entitled to accrue an entitlement towards the state pension.

[21] Approximately 10% of the public service (e.g. members of the Defence Force, An Garda Síochána, prison officers and full-time firefighters) have earlier retirement ages due to the nature of their work. Consequently, the Single Scheme will deliver savings for this cohort of the public service in a shorter time period.

Figure 4: Effective Retirement Ages in Ireland compared to OECD 36 Countries 1980 to 2018
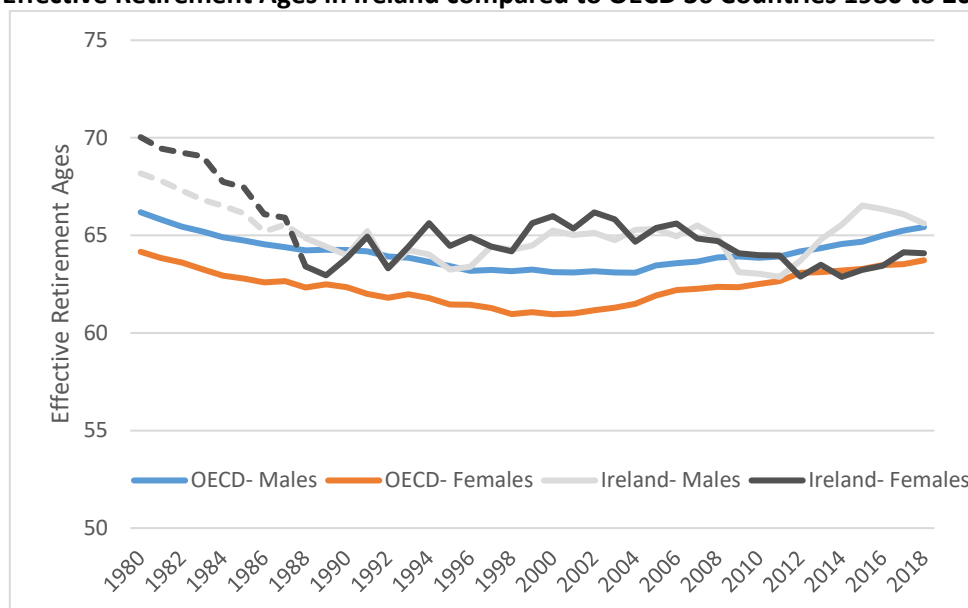
<div align="right">**Source: OECD**</div>

***Data for Ireland from 1980 to 1987 is based on census data rather than Labour Force survey**

Importantly, a number of European countries have already legislated for later retirement ages in the medium term (as illustrated in Appendix 1 below) and /or introduced mechanisms to automatically link future retirement ages with future life expectancies (as summarised in section 4.1). In this context, it is likely that, for most OECD countries, the future effective retirement ages will be higher than the 2018 levels illustrated in Figure 4.

The Social Welfare and Pensions Act 2011 abolished the State Pension (Transition) from 2014, effectively increasing the minimum age for eligibility to social security pension payment in Ireland to 66. The 2011 Act also legislated for an increase to the minimum age of eligibility for the main social security pension (the "State Pension (Contributory)") to 67 on 1 January 2021, with a further increase to 68 scheduled on 1 January 2028. However, as part of the 2020 *Programme for Government - Our Shared Future*, the planned increases to 67 and 68 have been repealed and an overall review of retirement ages is currently being undertaken.

7. Ireland's Current Position for Four Factors that Lead to Pension Reforms

The following section summarises four factors (or country characteristics) that academic literature has identified as being most relevant to implementing sustainability-improving pension reforms and, where possible, Ireland's current position relative to international peers for these factors.

7.1. Demographics

An apparent precondition before implementing sustainability-improving pension reforms is an ageing population (Beetsma *et al*, 2019, Borsch-Supan *et al*, 2015). As the proportion of pension recipients increases relative to current employees, the true cost of public pension scheme benefits becomes clearer. This supports a wider realisation that sustainability-improving pension reforms are required.

As a consequence of Ireland's historical high birth rates, as well as more recent net immigration patterns, Ireland currently has favourable demographics relative to most EU countries. This is illustrated by the following chart where, relative to the EU 27, Ireland has a higher proportion of the population aged below 26, as well as aged between 31 and 47. In contrast, a lower proportion of Ireland's population is aged above 48 years.

**Figure 5: Ireland's 2020 Age-Structure relative to EU 27**
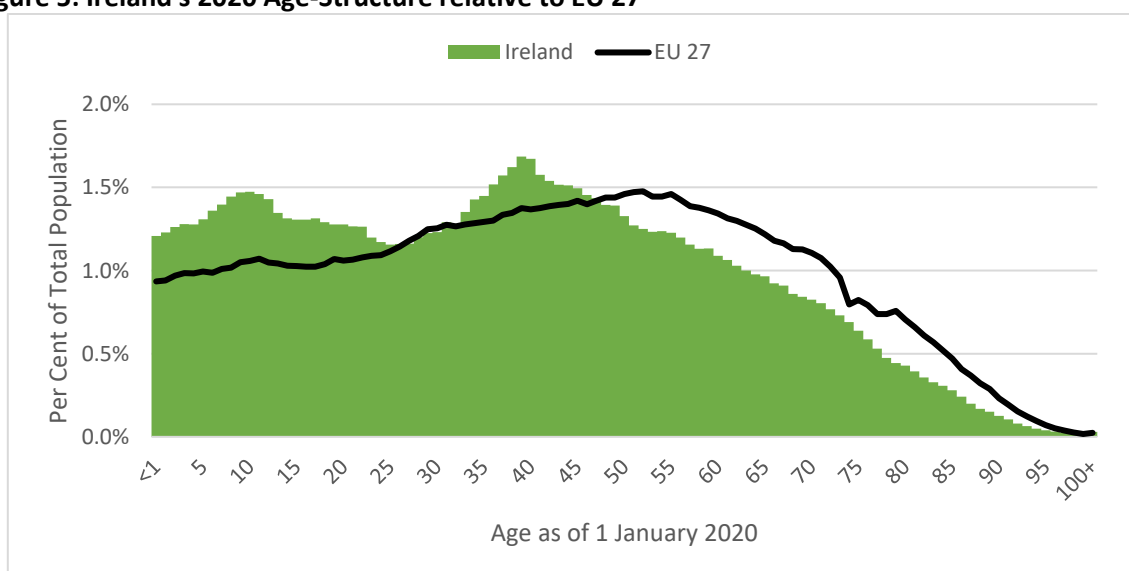
Source: Eurostat

Figure 6 illustrates that, relative to peer countries that previously made up the "EU 15", Ireland had the second lowest old-age to working-age ratio[22] in 2020 (at 25%). However, by 2060, Ireland's old age to working age ratio is projected to more than double and will be proportionately closer to these sample countries, as well as the OECD average.

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[22] The proportion of the population over 65 relative to the proportion of the population between 15 and 64.

**Figure 6: Average Old-age to Working-age ratios 2020 and 2060**
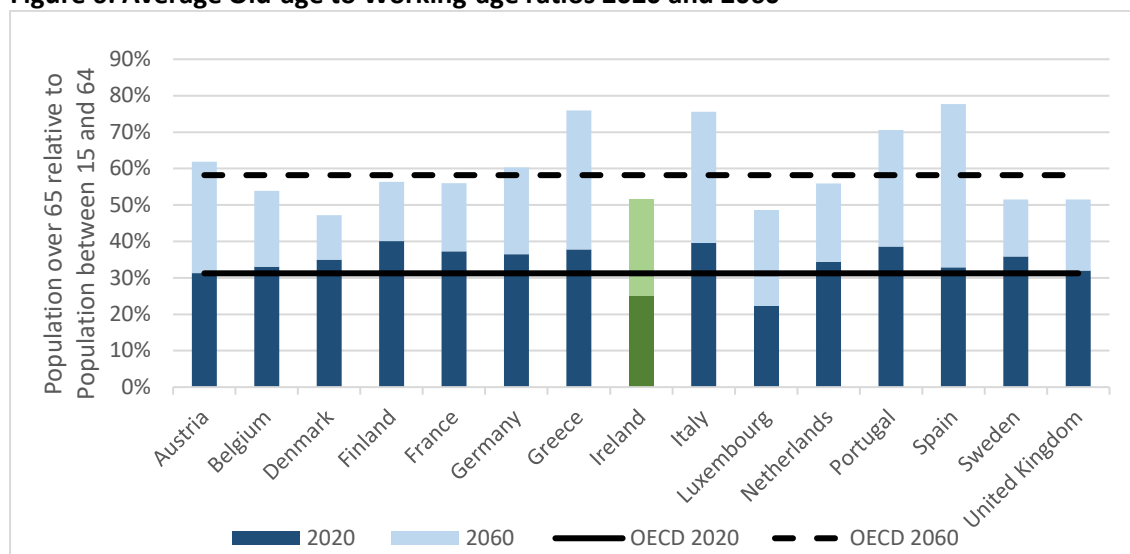
Source: OECD

7.2. High Publicly Funded Pension Obligations

As can be expected, academic papers (e.g. Brooks and James, 2001) have identified that pension reforms are more likely to be implemented in countries where the public finances are exposed to a relatively large pension debt (either explicit or implicit).

The accrued liability for Ireland's publicly funded pension obligations was estimated at €508.8 billion (256% of modified GNI) in 2018, comprising of €149.6 billion for public service pensions (75% of modified GNI) and €359.2 billion for social security related pension benefits (181% of modified GNI). Figure 7 presents the state funded accrued pension liabilities as a proportion of economy size in 2015 and 2018 for twelve of the EU 15 countries where data was available[23].

Figure 7: Publicly Funded Accrued Pension Liabilities 2015 and 2018
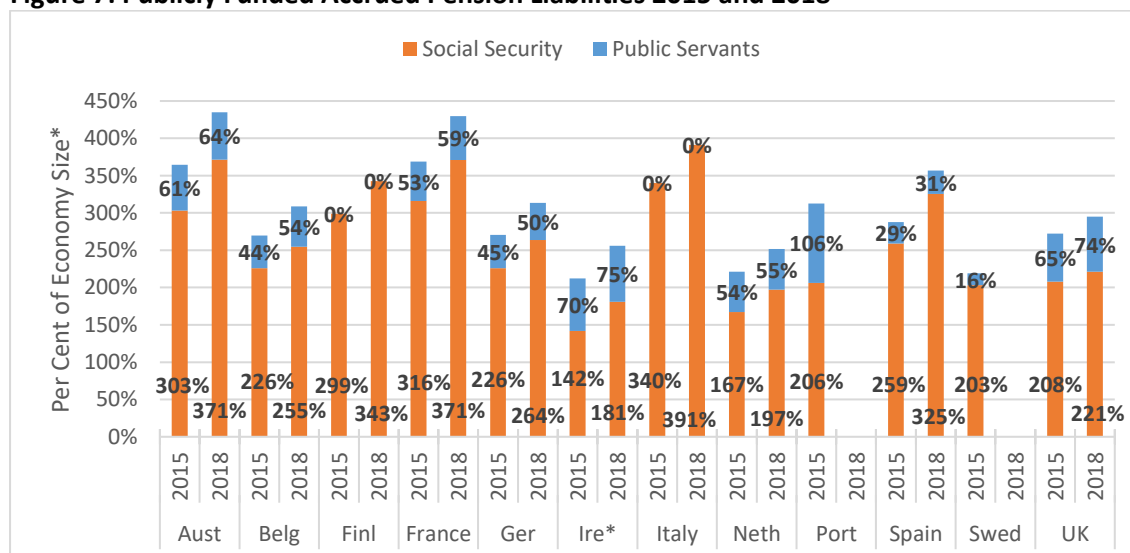
*Modified GNI used for Ireland[24]   **Source: Eurostat**

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[23] Comparable data was not available for Denmark, Greece and Luxembourg for 2015 and 2018. Portugal and Sweden did not report comparable figures for 2018.

[24] Modified GNI is an indicator recommended by the Economic Statistics Review Group (ESRG) and is designed to exclude globalisation effects that are disproportionately impacting the measurement of the size of the Irish economy.

Of this sample, Ireland had the lowest social security-related accrued pension liability in 2015 and 2018. This can largely be explained by Ireland's relatively youthful-age profile. However, it is important to consider that both the 2015 and 2018 estimates are based on the previously legislated eligibility ages of 67 from 2021 and 68 from 2028. As outlined in section 6.4, the eligibility age will now remain at 66 in 2021, with the policy for future increases currently under review.

Despite Ireland's favourable position in the context of social security accrued pension liabilities in 2015 and 2018, a number of sustainability issues are emerging. As Figure 8 illustrates, the combined annual expenditure on the State Pension (Contributory) and the State Pension (Non-Contributory) was €1.97 billion higher in 2020 relative to 2012. The average annual rate of increase was 4.7% (or €265 million per year) over this nine-year period.

Figure 8: Combined Annual Expenditure on the State Pension (Contributory) and the State Pension (Non-Contributory) 2012-2020
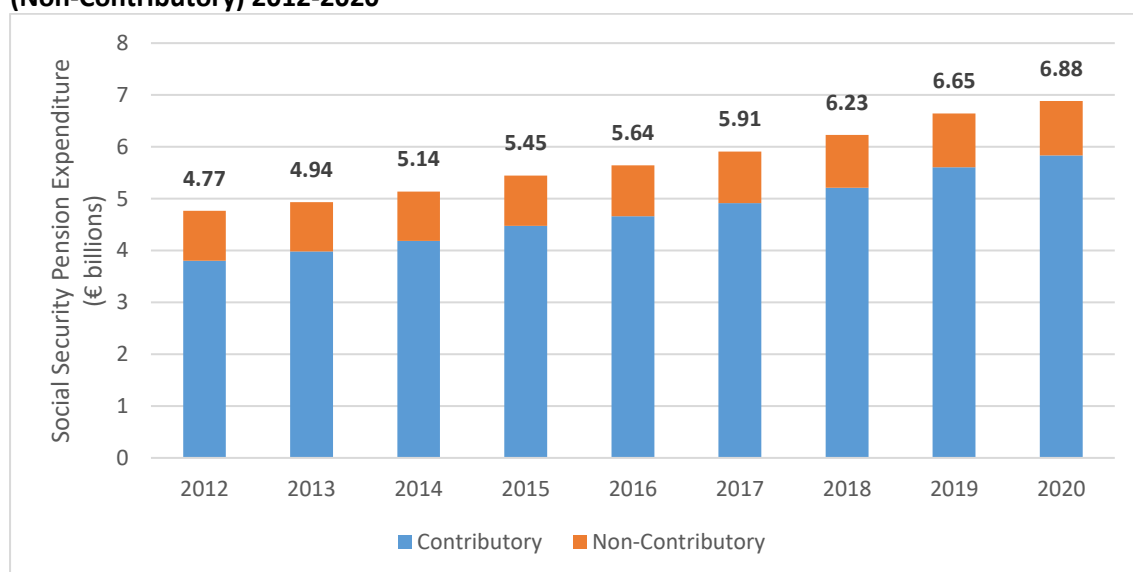
Source: DPER

Additionally, over the next 30 years the number of pensioners in Ireland are projected to more than double (IFAC, 2020). This presents significant funding challenges for the Social Insurance Fund, as illustrated in Figure 9:

Figure 9: Analysis of Social Insurance Fund Projected Pension Expenditure and Deficits 2015-2055
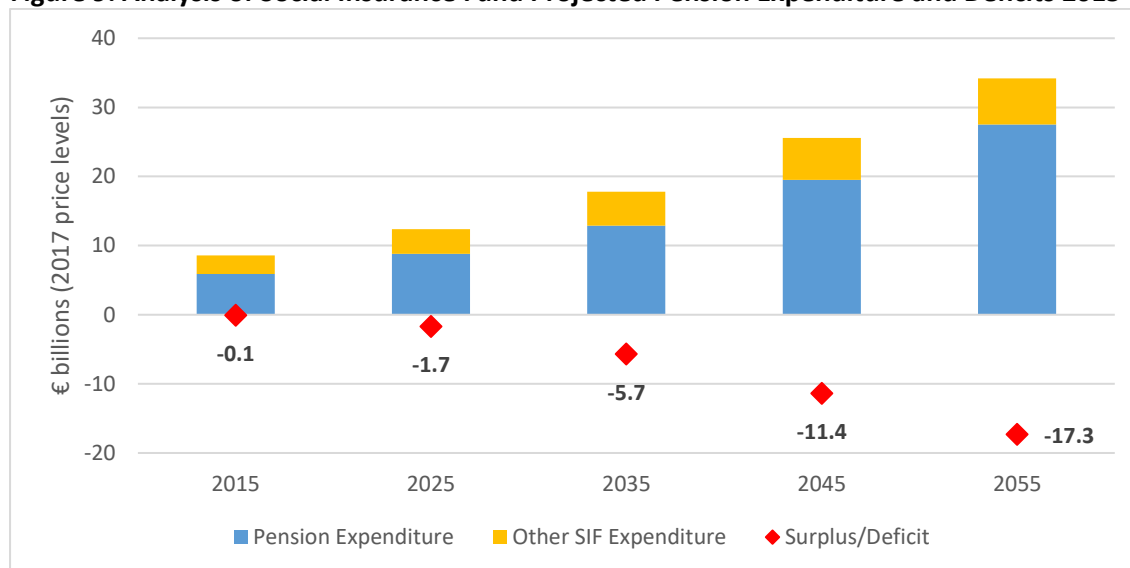
Based on projections[25] provided by the KPMG (2017) *Actuarial Review of the Social Insurance Fund - 31 December 2015*, annual SIF expenditure on pensions will increase by a multiple of 4.6 between 2015 and 2055 (an increase of €26.1 billion expressed in 2017 prices). This increase is the primary driver in the projected SIF deficit of €17.3 billion in 2055. As the SIF is underwritten by the Exchequer, if such levels of expenditure materialise and PRSI contribution rates are not increased to fund these, then higher levels of funding from general taxation will be required to meet this pension expenditure. As a consequence, there will be less fiscal space available to improve other public services (e.g. health and education) as well as other social policies (e.g. reducing child poverty).

Regarding the accrued liability for public service pension schemes relative to domestic economy size, Ireland ranks at the upper end of the EU 15 countries where data is available for 2015 and 2018[26]. This can largely be explained by the final salary and service based pension arrangements, combined with pension increases generally based on pay indexation that prevail across the Irish public service for public servants recruited prior to 2013. The introduction of the Single Scheme for new-joining public servants from 2013 onwards will likely align the Irish public service pension liability with international averages over the long-term.

7.3. Peer Implementation

Countries are more likely to introduce reforms when other countries that are considered as "peers" have previously introduced similar reforms (Brooks, 2007). Possible reasons behind this finding are:

- There are lower risks (political and financial) associated with introducing reforms that have previously been implemented in comparable countries.
- Supranational bodies can influence policy analysis and opinions. For example, where countries are financially supported by supranational organisations such as the IMF and

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[25] Importantly, these projections are based on the then-legislated position that the age of eligibility would increase to 67 from January 2021, and to 68 from January 2028.
[26] Finland and Italy do not report a separate accrued pension liability for public servants, as the state funded occupational pension system applies across all sectors. Comparable data is not available in respect of Denmark and Luxembourg for 2015 and 2018. Comparable data is not available in respect of Portugal and Sweden for 2018.

World Bank, these countries are more likely to implement the pension reforms preferred by these organisations. Additionally, organisations such as the EU Commission and the OECD can influence domestic policy analysis and may also improve the perceived validity of implementing reforms.

Section 4 above details the increasing prevalence of sustainability-improving pension reforms among Ireland's peer countries.

7.4. Economic and Fiscal Conditions

The need for pension reforms may be well established and understood, but there is often a long-fingering approach to implementing the required policies. However when economies are in recession, cost-saving pension reforms are more likely to be introduced (Beetsma *et al)*. This is best illustrated by the extent of the pension reforms implemented from 2007 onwards in the context of the Great Financial Crisis.

The COVID-19 virus has had an unprecedented impact on the global economy. The pertinent questions from an economic and fiscal point of view are; how long will the resultant recession last and how deep will it be? Figure 10 presents Ireland's budget surplus / deficit from 2000 to 2019, as well as the Department of Finance's recent projections[27] for 2020 and 2021, which show a sharp reversal in Ireland's fiscal recovery with a deficit of 10.7% of modified GNI projected for 2020.

**Figure 10: Ireland's Fiscal Deficit/Surplus relative to Modified GNI**
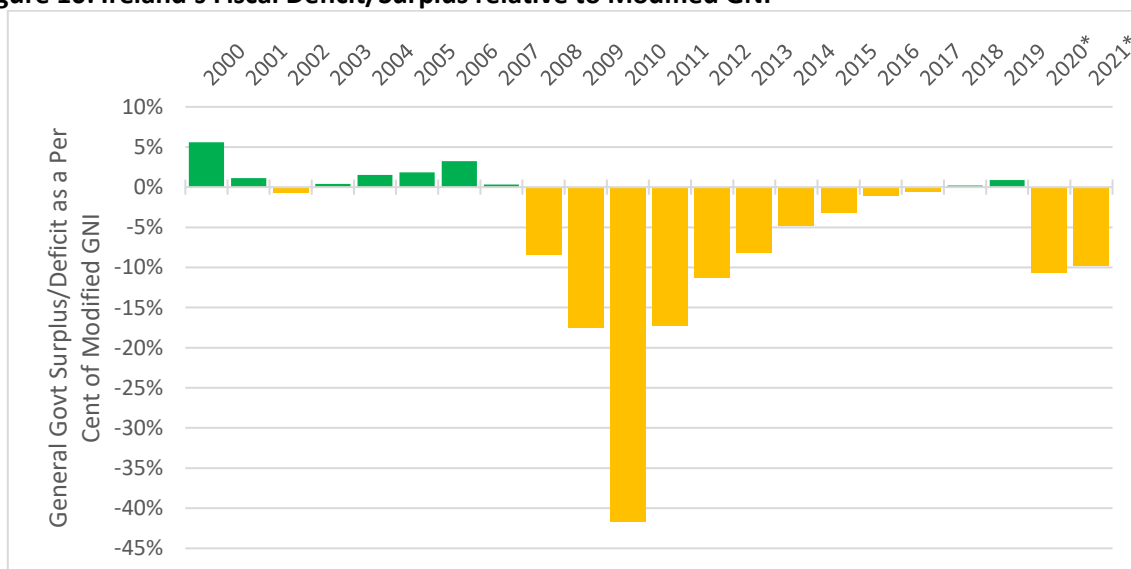
Source: CSO and *DoF Forecasts

The budgetary impacts of the COVID-19 virus are uncertain and highly sensitive to assumptions adopted but are likely to be similar for most European countries. However, as Figure 11 illustrates, Ireland had higher existing levels of Government debt as a proportion of economy size relative to EU averages when the COVID-19 crisis began.

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[27] *Budget 2021*, Department of Finance. Given the uncertainty around these estimates (primarily caused COVID-19 and Brexit associated risks), readers are encouraged to focus on the overall trends rather than specific figures.

Figure 11: Ireland's and EU[28] Relative Public Debt Levels 2010-2021
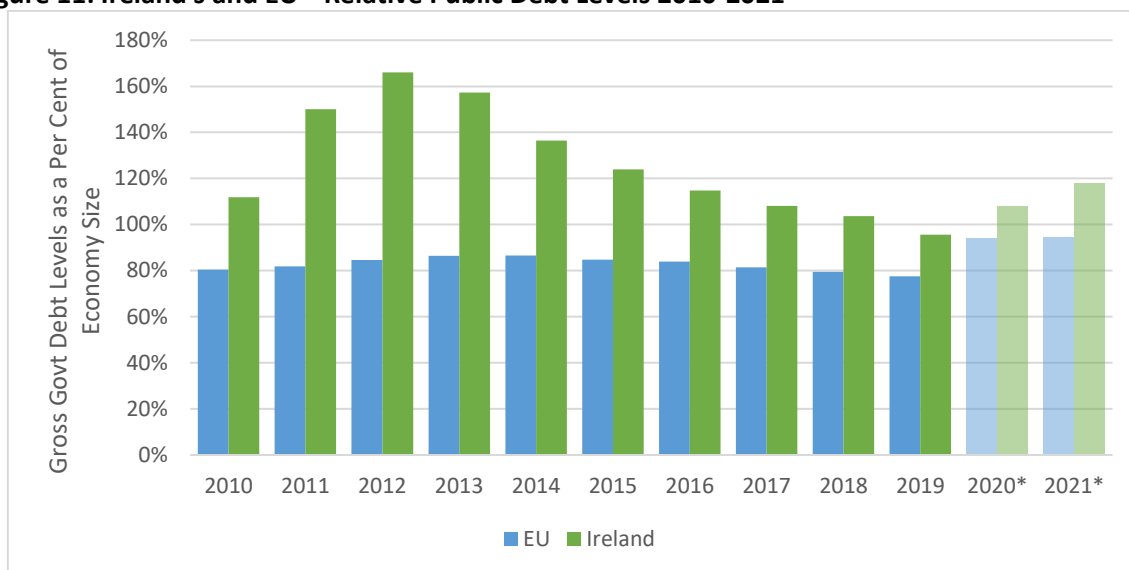
Source: CSO, Dept. of Finance, Eurostat and European Commission

Although Ireland's Government debt level as a proportion of economy size has been improving since 2012, it remained significantly higher relative to the EU average in 2019 (Ireland's Government debt was 95.6% of modified GNI, 18% higher than the EU average of 77.6% of the EU GDP). Based on recent projections, Ireland's Gross Government Debt as a proportion of Modified GNI will increase to 117.7% in 2021 (23.1% higher than the comparable EU level).

7.5. Summary of Ireland's relative position for each of the factors

In relation to the first factor, Ireland's demographics are currently favourable, but are deteriorating at a rapid rate. Ireland's population age profile is "catching up" with European and OECD country averages. Notably, based on OECD projections, Ireland's old age to working age ratio will more than double by 2060 (reaching 52% compared to 25% as of 2020).

In relation to the second factor, expenditure on the main social security pensions (the State Pension Contributory and the State Pension Non-Contributory) has increased by an average annual rate of 4.7% (or €265 million per year) over the past nine years. Based on the most recent actuarial review of the Social Insurance Fund, (which was based on eligibility ages of 67 from 2021 and 68 from 2028), over 80% of expenditure funded by the SIF will be allocated to pensions by 2055, and the SIF will have an annual deficit of €17.3 billion (in 2017 prices).

Ireland also has relatively high accrued liability in relation to public service pensions, which is attributable to the final salary and service based pension schemes that currently apply to public servants employed before 2013. The introduction of the Single Scheme will align this liability with international averages over time.

In relation to the third factor, as summarised in section 3, and further detailed in section 5, the vast majority of Ireland's peer countries have implemented sustainability-improving pension reforms in recent years.

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[28] The European Commission projections for 2020 and 2021 do not incorporate the UK due to Brexit. For consistency with these estimates, this chart also excludes the UK in the EU averages for 2010-2019.

In relation to the fourth factor, due to the impact of COVID-19, Ireland's current and near-term fiscal circumstances are challenging, similar to other European countries. However, prior to the commencement of this pandemic, Ireland had relatively high public debt levels (95.6% of modified GNI in 2019, 18% higher than the comparable EU level of 77.6% of GDP).

A number of reports have previously identified the need to reform the Irish pension system (e.g. Green Paper on Pensions (2007), OECD review (2014)). While many of the recommended reforms have already been implemented, other previously flagged reforms remain outstanding. More recently the Roadmap for Pensions Reform 2018-2023, when describing the need for further pension reforms, stated that:

> "*If the structural cost of the system becomes too high for current and future workers to sustain, it will not survive, at least in its present form. Whilst it might be possible to maintain a system with escalating costs for some time before reaching what might be considered a 'tipping-point', it would be inequitable to require the current generation of workers to maintain, or more likely increase, contributions to fund a pension system for current retirees that delivers significantly better payments than those that might be available to them when they retire.*"

In this context, the increased implementation of sustainability-improving pension reforms across Ireland's peer countries combined with Ireland's rapidly dis-improving demographic trends, relatively high level of public debt, as well as the current and near term economic and fiscal difficulties could serve as a supportive environment for implementing the outstanding required pension reforms.

8. Conclusion

This paper commenced with a summary of how the Beveridgean family and the Bismarckian family classifications of publicly funded pension systems first emerged and subsequently developed. The 40-year period after WWII saw the expansion of publicly funded pension systems in terms of coverage and the value of expected payments to retirees for both social security type pension systems and public service pension schemes.

As life expectancies increased and the proportion of the population receiving retirement benefits grew, the increasing costs of these systems emerged as a challenge to the sustainability of many countries' overall public finances.

The initial responses to these higher costs were to increase the required contributions from current and future employees and employers, or to increase the subsidisation of pension expenditure from general taxation revenue. In addition to the concerns this approach raised in the context of intergenerational fairness, there are also practical limits to the level of required contributions which impose distortions on the labour market.

Between 1989 and 1993, Germany, France and Italy introduced pension reforms intended to improve the sustainability of pension systems by reducing the pension benefits payable. Although these reforms were pioneering in direction, they incorporated long lags (e.g. 40 years in the case of Italy) before the savings would be achieved. The projected savings that would eventually be delivered were also of a modest nature.

In 2001, the EU Commission analysed the issue of pension sustainability in the context of ageing populations across the EU 15 member states. This analysis concluded that further substantial pension reforms were required. The vast majority of EU (and OECD) countries have introduced expenditure-reducing pension reforms since then.

The most common pension reforms implemented by EU and OECD countries have been directed at increasing effective retirement ages. Other pension reforms introduced since 2000 include; lowering pension accrual rates, lowering the reference salary on which pension benefits are based, increasing eligibility requirements before pensions become payable and moving towards a policy of increasing pension payments in line with prices instead of wages.

Some countries have suspended or reversed the implementation of such measures since 2017. The OECD has identified that the failure to implement these reforms as initially intended will leave pension systems less resilient to future economic shocks and unprepared for the anticipated population ageing.

Section 4 summarised Beetsma *et al*'s empirical analysis of international pension reforms. The total incidence of pension reforms introduced in OECD countries between 1994 and 2017 was 70% higher than the preceding 23-year period. The composition of pension reforms also changed, with most pension reforms since 1993 focused on improving sustainability. This empirical analysis also identified that pension reforms that contain both cost-saving and cost-increasing measures tend to produce larger "net savings" relative to measures that contain only cost-saving reforms.

While serving as a useful illustration of the increasing incidence and changing nature of pension reforms, this empirical analysis does not capture two important elements. Firstly, each pension reform is given the same weight, and the larger impact of the cost-saving reforms is not captured. Secondly, the shortening time lag between pension reforms being legislated and when the envisaged

savings are delivered is not captured. However, both elements emerge from a high level analysis of structural reforms over the last 20 years, and are also manifested in lower projections for future pension expenditure.

Section 5 of the paper summarised the convergence of international pension systems around the multi-pillared structure first recommended by the World Bank in the mid-1990s. This section also detailed Ireland's current status in implementing this multi-pillared model. Ireland's current position in relation to pillar 1 (publicly funded basic pension) is very effective at preventing poverty in old-age. However, due to demographic trends, the current funding arrangements for this pillar are not sustainable. Despite costly tax incentives, coverage of Pillar 2 (occupational pension schemes) and Pillar 3 (private pension schemes) remains very low in Ireland (between 30 and 35% in the private sector). The main advantages of fully achieving the World Bank model are – more sustainable public finances, improved actuarial and intergenerational fairness, and reduced exposure of retirement incomes to political risks.

Section 6 of the paper summarised the pension reforms Ireland has implemented since 2010. The introduction from January 2013 of the Single Public Service Pension Scheme, as well as the ongoing development of an Auto-Enrolment occupational pension scheme are variations of pension reforms previously introduced by Ireland's peer countries. The Social Welfare and Pensions Act 2011 legislated for an increase to the minimum age to receive the State Pension (Contributory) to 67 from 1 January 2021, with a further increase to 68 scheduled from 2028. However, as part of the 2020 *Programme for Government - Our Shared Future*, these intended increases have been repealed and are now subject to further review.

Section 7 of the paper presented Ireland's current position in relation to the four main factors that have been identified as driving pension reforms. Ireland currently has favourable demographics relative to EU averages, with low proportions of our population aged over 65. However, Ireland's population age profile is "catching up" with European and OECD population age profiles at a rapid pace. Notably, Ireland's old-age to working-age ratio will more than double by 2060 (reaching 52% compared to 25% as of 2020).

Relative to European averages in 2018, Ireland had lower levels of accrued publicly funded pension obligations in proportion to the size of the economy (256% of modified GNI). Ireland's total accrued publicly funded pension obligations comprised 181% of modified GNI for social security pensions and 75% of modified GNI for public service pensions.

Due to the impact of COVID-19, Ireland's current and near-term fiscal circumstances are similar to other European countries. However prior to the commencement of this pandemic, Ireland had relatively high public debt levels (95.6% of modified GNI in 2019, 18% higher than the comparable EU level of 77.6% of GDP).

The need for reforming the Irish pension system has been flagged since before 2007. While a number of reforms have already been implemented or are currently being developed for implementation, a number of other previously identified reforms remain outstanding. In this context, the increased implementation of sustainability-improving pension reforms across Ireland's peer countries combined with Ireland's rapidly dis-improving demographic trends, relatively high level of public debt, as well as current and near term economic and fiscal difficulties could serve as a supportive environment for implementing the outstanding required pension reforms.

References

Beetsma, R., Klaassen, F., Romp, W. and van Maurik, R., 2019. What Drives Pension Reform Measures in the OECD?. *Centre for Economic Policy Research*.

Boeri, T., Borsch-Supan, A. and Tabellini, G., 2002. Would You Like to Reform the Pension System? The Opinions of European Citizens. *American Economic Review* pp.396-401.

Boeri, T., and Tabellini, G., 2012. Does Information Increase Political Support for Pension Reform? *Public Choice,* pp.327-362.

Bonoli, G. and Palier, B., 2007. When Past Reforms Open New Opportunities: Comparing Old-age Insurance Reforms in Bismarckian Welfare Systems. *Social Policy & Administration*, 41(6), pp.555-573.

Borsch-Supan, A., Bucher-Koenen, T., Coppola, M. and Lamala, B., 2015. Savings in Times of Demographic Change: Lessons from the German Experience. *Journal of Economic Surveys*, 29(4), pp.807-829.

Brooks, S., 2007. When Does Diffusion Matter? Explaining the Spread of Structural Pension Reforms Across Nations. *The Journal of Politics*, 69(3), pp.701-715.

Brooks, S. and James, E., 2001. The Political Economy of Structural Pension Reform. *Social Science Research Network*.

Burke, R. and Gilhawley, T., 2018. Private Pension Tax Relief: A paper on the Irish Pensions Taxation Landscape. *Society of Actuaries in Ireland*.

Carone, G., Eckfeldt, P., Giamboni, L., Laine, V. and Summer, P., 2016. Pension Reforms in the EU Since the 2000's: Achievements and Challenges Ahead. *European Commission*.

Central Statistics Office, 2020. Pension Coverage 2019

Central Statistics Office, 2021. Pension Coverage 2020

Department of Finance, 2020. *Budget 2021*.

Department of Public Expenditure and Reform, 2017. *Actuarial Review of Public Service Occupational Pensions in Ireland*.

Department of Public Expenditure and Reform, 2020. *Actuarial Review of Public Service Occupational Pensions in Ireland*.

European Commission, 2001. *Reforms of Pension Systems in the EU - An Analysis of The Policy Options*. pp.171-222.

European Commission, 2018. *The 2018 Ageing Report*. European Economy.

European Commission, 2020. *Autumn 2020 Economic Forecast: Rebound Interrupted As Resurgence Of Pandemic Deepens Uncertainty*.

Government of Ireland, 2007. *Green Paper on Pensions*.

Government of Ireland, 2018. *A Roadmap for Pensions Reform 2018 - 2023*.

Government of Ireland, 2020. *Report of the Interdepartmental Pensions Reform and Taxation Group*.

Irish Fiscal Advisory Council, 2020. *Long-term Sustainability Report: Fiscal challenges and Risks 2025-2050.*

Kohli, M. and Arza, C., 2011. The Political Economy of Pension Reform in Europe. *Handbook of Aging and the Social Sciences*, 7th Edition (Chapter 18).

KPMG, 2017. *Actuarial Review of the Social Insurance Fund - 31 December 2015*.

Linbeck, A. and Persson, M., 2003. The Gains from Pension Reform. *Journal of Economic Literature*, XLI, pp.77-112.

OECD, 2014. *OECD Reviews of Pensions Systems: Ireland*, OECD Publishing.

OECD, 2019. *Pensions at a Glance 2019*.

World Bank, 1994. *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth*.

Appendix 1: The Lag between Legislating Sustainability-Improving Pension Reforms in Europe since 2010 and the Realisation of Expected Savings.

Country	Year(s) of Legislation	Lag between Legislation and Expected Full Realisation	Description of Measure(s)
Austria	2014	19 years	Retirement Age for women increased from 60 to 65, to align with men (incremental increases of 6 months every year 2024-2033)
Belgium	2015	10 years	Normal retirement age increased from 65 to 66 from 2025
		25 years	Normal retirement age increased from 66 to 67 from 2030
Greece	2010	1.5 years	Reduced pension accrual rates from January 2012
		4 years	Pension indexation linked with (not to exceed) CPI increases from 2014
		0.5 years	Normal retirement age increased from 60 to 65 from 2011 (remained at 60 for those with 40 years contributions)
	2015	6.33 years	Normal retirement age increased from 65 to 67 from 2021 (increased to 62 for those with 40 years contributions)
Ireland	2011	3 years	Eligibility age for Social Security pension increased from 65 to 66 from 2014
		10 years[29]	Eligibility age for Social Security pension increased from 66 to 67 from 2021
		17 years[30]	Eligibility age for Social Security pension increased from 67 to 68 from 2028

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[29] Increase to eligibility age now subject to review through the 2020 *Programme for Government – Our Shared Future.*
[30] *Ibid.*

	2012	Approx. 40 years for most of the public service, shorter for "uniformed" public servants	Career-average, CPI indexed occupational pension scheme with later retirement ages introduced for newly recruited public servants from 2013
Italy	2011	10 years	Normal Retirement age to increase by 6 months every year from a starting point of 60 to reach 67 by 2021
		4 years	Abolition of early retirement options phased in up to 2015
Netherlands	2012	12 years[31]	Retirement age increased gradually from 65 to 67
	2015	13 years[32]	Retirement age linked to life expectancy - increased by 8 months for every year of life expectancy improvements
Spain	2011	16 years	Retirement age increased incrementally from 65 to 67 by 2027
	2011	12 years	Reference period for calculating pension was extended from 15 to 25 years, to be phased in by 2023
	2013	6 years	Indexation now takes into account a number of factors including social security revenue and expenditure, plus number of contributory pensions. Was previously linked to inflation. Law guarantees it will never be lower than 0.25% or higher than inflation + 0.5%
United Kingdom	2013	14 years	All new joining public servants and existing public servants with less than 14 years to retirement[33] became members of career average public service pension schemes
	2014	14 years	Retirement age was increased incrementally from 66 to 67 by 2028

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[31] 2012 legislation amended in 2015 to fast-track the full implementation of the increase in retirement age from 2021 to 2019. However in 2019, after Union negotiations, full implementation was delayed to 2024.
[32] 2012 legislation amended in 2015 to fast-track implementation of linking life expectancy increases to automatic increases in retirement age from 2022 to 2020. However in 2019, after Union negotiations, implementation was delayed to 2025.
[33] These reforms were later found to be unlawful on the basis of age-discrimination. This was due to the exemption from these reforms offered to public servants with less than 14 years to normal retirement ages.

Quality Assurance process

To ensure accuracy and methodological rigour, the author engaged in the following quality assurance process.

- ✓ Internal/Departmental
    - ✓ Line management
    - ☐ Spending Review Steering group
    - ✓ Other divisions/sections
    - ☐ Peer review (IGEES network, seminars, conferences etc.)

- ✓ External
    - ✓ Other Government Department
    - ☐ Other Steering group
    - ✓ Quality Assurance Group (QAG)
    - ☐ Peer review (IGEES network, seminars, conferences etc.)
    - ☐ External expert(s)

- ☐ Other (relevant details)

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