Society of Actuaries in Ireland

# Current Topics Paper 2024


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# Contents


1. Foreword ... 4
2. Overview ... 5
3. Life and Healthcare ... 6
   - 3.1 2023 Movements ... 6
     - 3.1.1 Life Insurance Companies ... 6
     - 3.1.2 Premiums ... 6
     - 3.1.3 Investments ... 8
     - 3.1.4 Solvency Coverage Ratio ... 8
   - 3.2 IFRS 17 Implementation ... 8
     - 3.2.1 Overview of IFRS 17 ... 9
     - 3.2.2 Implementation ... 9
     - 3.2.3 Post Implementation Landscape ... 10
   - 3.3 Solvency II Review ... 11
     - 3.3.1 Pillar 1 Amendments ... 11
     - 3.3.2 Pillar 2 Amendments ... 13
     - 3.3.3 Pillar 3 Amendments ... 14
     - 3.3.4 Proportionality ... 15
     - 3.3.5 Recovery and Resolution Plan ... 15
   - 3.4 COVID Review ... 15
     - 3.4.1 Excess Mortality ... 15
     - 3.4.2 Experience Review Adjustments ... 17
   - 3.5 The Return of Positive Interest Rates ... 20
   - 3.6 Right to be Forgotten ... 21
   - 3.7 Fertility Trends ... 23
   - 3.8 Healthcare ... 36
     - 3.8.1 Introduction ... 36
     - 3.8.2 PHI Market Update ... 36
     - 3.8.3 Rising Premiums and Claims Costs ... 37
     - 3.8.4 Sláintecare Update ... 39
     - 3.8.5 Technology/Advancements in Healthcare ... 42
     - 3.8.6 Conclusion ... 44
4. Pensions and Investments ... 45
   - 4.1 Defined Contribution Update ... 45

4.2 Defined Benefit ('DB') Pension Schemes ..... 59
4.3 DB investment and risk management trends ..... 61
5. General Insurance ..... 68
5.1 Private Motor Insurance ..... 68
5.2 Employers' and Public Liability Insurance ..... 70
5.3 Flood Risk ..... 74
5.3.1 Introduction ..... 74
5.3.2 Recent Flood Event in Ireland ..... 74
5.3.3 Irish Government Approach to Managing Flood Risk ..... 75
5.3.4 Approach from other EU and non-EU Countries ..... 75
5.4 Occupiers Liability Act ..... 77
5.4.1 Introduction ..... 77
5.4.2 Market Impact ..... 78
5.5 Legal Environment ..... 78
5.5.1 Injuries Resolution Board ..... 78
5.5.2 Legal Challenge ..... 82
5.5.3 Catastrophic Injuries – Periodic Payment Orders and Discount Rate ..... 83
5.6 Evolving Transport ..... 85
5.6.1 E-Scooters ..... 85
5.6.2 Electric Vehicles ..... 86
6. AI ..... 92
6.1 Introduction ..... 92
6.2 Key Applications of AI in Insurance ..... 92
6.3 Risks associated with AI for insurers ..... 92
6.4 Considerations for implementation of AI in organisations ..... 93
6.5 EU AI act ..... 94
6.6 Conclusion ..... 95
7. Regulation ..... 97
7.1 Climate Change and Sustainability ..... 97
7.2 Consumer Protection Code ..... 103
7.3 Digital Operational Resilience Act ..... 107

# 1. Foreword

Welcome to the Society of Actuaries in Ireland 2024 Current Topics paper. This continues a series which started with the first Current Topics paper in 2001 and it serves a number of purposes:

- It gives a group of newly qualified actuaries an opportunity to prepare and present their first paper for their professional peers;
- It consolidates in one document the issues facing actuaries in our main areas of practice;
- It provides an external audience with a useful overview of the key current issues in the insurance, investment and pensions sectors.

The paper was co-ordinated by Tomás Hayes and the contributors are:

| | |
|---|---|
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A special thanks to all those who took time to review the paper;

Aisling Barrett, Marie Murphy, Caroline Twomey, Emer O'Connell, Fergal O'Shea, Francis Furey, Julie McCarthy, Karl Murray, Niall Naughton, Niall Quinn, Daniel Sharpe, Conor Daly, John Lynch, Munro O'Dwyer, Anna Kinsella, Martin McAllister, Emily Dunne, Gordon Quinn, Noel Garvey, Damien Fadden, James Bradley, Áine Leahy, David McGarry, Joseph Sloan, Sinéad Clarke, Sandra Heaslip.

A huge amount of work has gone into producing the paper and I would like to thank everybody involved for their time, energy and commitment.

*The following Paper is for general information, education and discussion purposes only. Views or opinions expressed do not necessarily represent the views or opinions of the Society of Actuaries in Ireland and they do not constitute legal or professional advice.*

## 2. Overview

The Life & Healthcare section highlights developments in the Life insurance market. The key features of regulatory reforms including IFRS 17, and Solvency II are discussed. The section examines the impact Covid-19 has had on both mortality rates and assumption setting processes, the Right to be Forgotten for cancer survivors, the impact to life insurance companies on the increase and return of interest rates and a detailed exploration of demographic shifts in fertility rates. Fertility is a demographic hop topic at the moment. It is frequently discussed in mainstream media, and many governments are now actively creating policies to try to combat recent trends.

The Pensions & Investment Section covers relevant developments for defined contribution, defined benefit and individual pension savers. This includes the growth of DC master trusts, changes to personal pension saving environment including the standard fund threshold and personal retirement savings accounts. The defined benefit section focusses on investment and risk management trends, including de-risking, LDI and associated liquidity risks and the evolving range of bulk annuity solutions.

The General Insurance section discusses some recent changes in the non-life insurance environment generally, and to the legal environment which affects awards. These relate to the Occupiers' Liability Act and the Injuries Resolution Board, as well as the landmark court case which challenged the constitutionality of the Personal Injuries Guidelines and includes an update on catastrophic injuries. There is a discussion on flood risk in Ireland with a comparison to other European countries, and a discussion on evolving transport methods and how they relate to general insurance.

The AI section explores the transformative impact of artificial intelligence on the insurance industry, highlighting its potentials and key applications. However, the integration of AI also introduces significant risks which are covered in this section. The section also discusses the implications of the EU AI Act.

The Regulatory Updates section covers recent and upcoming changes in the regulatory landscape affecting the insurance industry. The section details the initiatives on climate risk management, emphasising the need for insurers to integrate climate risk into their governance and strategic planning. It also discusses the Consumer Protection Code, highlighting proposed updates to enhance consumer welfare and adapt to digitalisation. Additionally, the section outlines the Digital Operational Resilience Act (DORA), which aims to strengthen the financial sector's ability to withstand ICT-related risks.

# 3. Life and Healthcare

## 3.1 2023 Movements

In this section we are going to analyse the movement in the life insurance market since the last Current Topics[1] paper concentrating on the full year of 2023. Drawing on the insights provided in Milliman's Year-End 2023 Solvency and Financial Condition Reports ("SFCRs")[2], we will examine the trends in premiums written, investments held, and solvency coverage ratios for authorised life insurance companies.

### 3.1.1 Life Insurance Companies

At the end of 2022, there were 34 life insurance companies authorised by the Central Bank of Ireland (CBI).

During 2023, Intesa Sanpaolo Life (ISPL) DAC transferred its business into its Italian parent Intesa Sanpaolo Vita (ISV) S.p.A. The portfolio transfer took effect on 1st December 2023 and so ISPL is no longer authorised in Ireland.

The joint venture between Allied Irish Banks plc (AIB) and Great-West Lifeco, Saol Assurance trading as AIB Life was authorised by the CBI in February 2023. The joint venture provides life insurance, savings, investments and pensions and is only available through AIB.

Phoenix Life Assurance Europe dac was authorised in September 2022. On 1st January 2023 all policies from Phoenix Life Limited (including Phoenix Ireland) and ReAssure Life Limited were transferred to Phoenix Life Assurance Europe dac. Phoenix Life Assurance Europe dac is regulated by the Central Bank of Ireland.

These movements resulted in 35 life insurance companies being regulated by CBI at the end of 2023.

### 3.1.2 Premiums

In 2023 the volume of gross written premiums by life insurance companies in Ireland was €41.6 billion, an increase from €40.6 billion in 2022 (noting significant decrease from €48.1 billion in 2021). This represents all premium income during the year (not just new business premiums) including recurring premiums on regular premium business. It is the total figure for premiums written in Ireland and cross-border premiums written.

The gross written premiums for the top 10 life insurers in Ireland for the years 2023 and 2022 are shown in the below table along with the percentage increase over the two years.

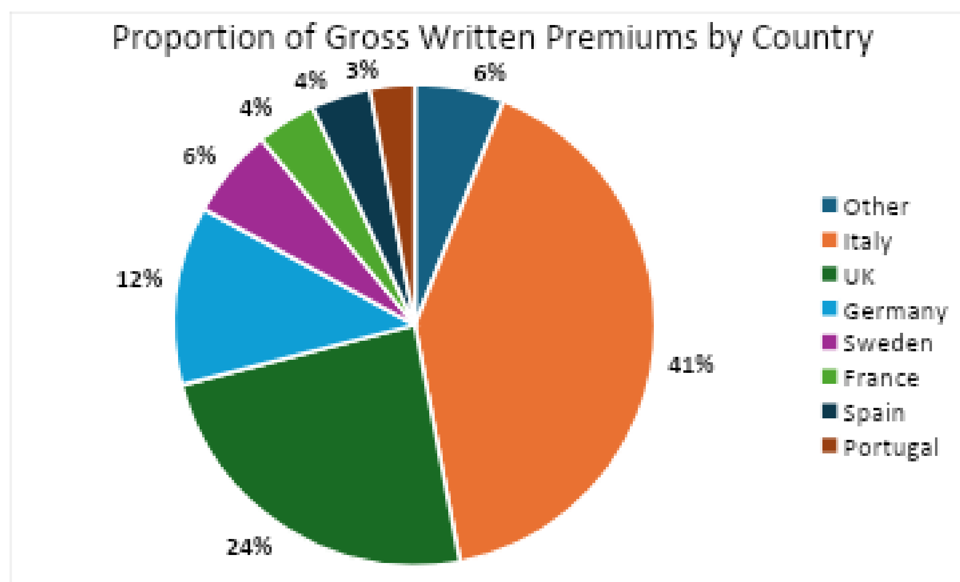
[1] Current Topics Paper 2022
[2] Analysis of Solvency and Financial Condition Reports: Year-end 2023 — Life insurers based in Ireland

| Gross Premiums (€ millions) | 2023 | 2022 | % Change |
|---|---|---|---|
| Irish Life Assurance | 9,074 | 7,103 | +28% |
| Zurich Life Assurance | 5,358 | 4,490 | +19% |
| New Ireland Assurance Company | 3,959 | 3,028 | +31% |
| Darta Saving Life Assurance | 3,278 | 3,244 | +1% |
| Standard Life International | 2,841 | 2,678 | +6% |
| Utmost PanEurope | 2,554 | 2,291 | +11% |
| Aviva Life & Pensions Ireland | 1,923 | 1,746 | +10% |
| MetLife Europe | 1,512 | 1,431 | +6% |
| Azimut Life | 1,283 | 1,048 | +22% |
| Prudential International Assurance | 1,124 | 1,052 | +7% |

Over the year 2023, New Ireland Assurance and Irish Life had the largest proportional increases in premiums. For New Ireland, the increase was driven by growth in Pensions single premium[3] and for Irish Life the increase was driven by an increase in the index linked and unit-linked lines of business[4].

The gross premiums written in the domestic market was estimated to be approximately €22.2 billion (out of a total of €41.6 billion written). The estimated amount for 2022 was €17.6 billion representing an approximate increase of 26%.

The gross premiums written in the cross-border market was estimated to be approximately €19.5 billion. The estimated amount for 2022 was €23.0 billion representing an approximate decrease of 15%. The biggest driver of this decrease was the departure of ISPL from Ireland in 2023. The breakdown of premiums written by country excluding Ireland in 2023 is shown in the following figure.




[3] New Ireland SFCR 2023

[4] ILA SFCR 2023

### 3.1.3 Investments

The total value of assets held at the year-end 2023 balance sheet of Irish life insurers was €342 billion. This is broadly unchanged from year-end 2022 (€344 billion). Most of the Irish life insurance companies' balance sheet assets are assets held for index-linked and unit-linked contracts with the value of unit-linked assets estimated to be €271 billion.

Looking at the mix of assets held, the majority of assets held were government and corporate bonds accounting for 54% (31% government, 23% corporate).

The mix of assets between 2022 and 2023 remained stable with the breakdown of assets shown in the below table:

| % of Total Investments Held | 2023 | 2022 |
|---|---|---|
| Government Bonds | 31% | 31% |
| Corporate Bonds | 23% | 22% |
| Collective Investments | 11% | 10% |
| Equity | 9% | 10% |
| Cash and Deposits | 9% | 10% |
| Derivatives | 7% | 11% |
| Other | 10% | 7% |

### 3.1.4 Solvency Coverage Ratio

The solvency coverage ratio for Irish life insurers reduced in 2023 to 167% from 188% in 2022. This is calculated as total eligible own funds divided by solvency capital requirement (SCR) for all entities included in the analysis, based on the figures reported in SFCRs. Solvency coverage was in excess of the required 100% coverage level, indicating that, in aggregate Irish life insurers were in a healthy solvency position at year-end 2023. The drivers of this reduction were the exit of ISPL which had a coverage ratio of 299% in 2022 and reduction in the solvency coverage ratio of the larger life insurance companies.

Out of the 35 regulated life insurance companies at year-end 2023, only 9 reported an increase in solvency coverage ratio over the year. The key drivers behind the general reduction in solvency coverage ratio/ increase in solvency capital requirement include:

- a decrease in interest rates,
- positive investment markets
- new business sales

## 3.2 IFRS 17 Implementation

International Financial Reporting Standard 17 (IFRS 17) represented one of the most significant changes to insurance accounting in recent decades. Issued by the International Accounting Standards Board (IASB) in May 2017 and effective from January 2023, IFRS 17 superseded IFRS 4 and introduced a comprehensive framework for measuring insurance contracts. Not all companies were required to

move to IFRS 17 and some remain reporting under prior standards (FRS 102, FRS 103). Certain life insurers reporting under IFRS do not use IFRS 17, as their business is classified as investment-related and falls under the scope of IFRS 9. For life insurers in Ireland reporting under IFRS 17, the implementation of IFRS 17 was a complex and transformative process. This section provides an overview of the changes introduced by IFRS 17, examines how the implementation has progressed for life insurers in Ireland, and outlines the next steps, including training and process improvements.

### 3.2.1 Overview of IFRS 17

The key differences introduced by IFRS 17 include:

- Emergence of profits – Under IFRS 4 the profit for an insurance classified contract could potentially be recognised at inception depending on an insurer's accounting policies. Under IFRS 17, no profits can be recognised at inception. Instead, for a profitable contract, a contractual service margin (CSM) liability is set up that is equal to the present value of expected future profits plus a risk adjustment. The CSM is then amortised over the lifetime of the contract, and this recognised as income in the profit and loss.
- Grouping of contracts – Measurement is based on groups of insurance contracts that have similar risks and are managed together. Contracts are also grouped into annual cohorts under IFRS 17. This type of grouping wasn't required under IFRS 4.
- Measurement Model – There are 3 measurement models used under IFRS 17 for different types of insurance contracts:
    - General Measurement Model (GMM): This is the default measurement model for insurance contracts.
    - Premium Allocation Approach (PAA): This is a simplified model that is typically used for contracts that have a coverage period of one year or less e.g. group protection policies.
    - Variable Fee Approach (VFA): This is the measurement model for contracts with direct participation features. These are insurance contracts that are substantially investment-related service contracts with a promise of an investment return based on underlying items e.g. unit-linked policies.
- Discount Rates – Discount rates under IFRS 17 need to be consistent with current market prices and reflect the characteristics of the cashflows and insurance contract's liquidity. There are two methods of determining the discount rate:
    - Bottom-Up: Using the risk-free yield curve and an illiquidity premium. This is a popular method used by insurers.
    - Top-Down: Using a reference portfolio of assets and adjusting to eliminate factors not relevant to the insurance contracts.
- Risk Adjustment – There are no prescribed approaches under IFRS 17 for measuring the risk adjustment. Insurers commonly use confidence level, cost of capital or margin approaches.

### 3.2.2 Implementation

Many insurers set up IFRS 17 project teams responsible for implementing the new structure and developing the new processes, controls, and trainings etc. These project teams have now been mostly wound down as the process move into BAU. Prior to IFRS 17 going into force on 1st January 2023, life

insurers completed restated 2022 comparatives for IFRS 17. Many insurers completed full end-to-end dry runs of their IFRS 17 systems and solutions in the run up. There was a large focus on the opening balance sheet and accounting policy decisions, and this included large engagement between the insurance companies and external auditors.

Given the complexity, many Irish life insurers overhauled their systems and processes. This included upgrading or implementing new actuarial and financial reporting systems capable of handling the calculations and disclosures required. Data required for the updated systems had to be identified and implemented into appropriate data feeds. Actuarial and finance processes were redesigned to incorporate the new changes. This included developing new actuarial and finance models, updating accounting processes and revising reporting timelines. Insurers have largely incorporated IFRS 17 into their KPIs with many life insurers leveraging the CSM and other IFRS 17 metrics into their KPIs.

The implementation involved extensive training and change management efforts to navigate the new landscape. Comprehensive training programs for actuaries, accountants and other relevant staff on the technical aspects were conducted. Users of the financial statements needed to be educated on the changes being introduced. Overall, the implementation took longer than expected and cost more than the industry originally anticipated. The benefits to the industry will be revealed over the coming years.

### 3.2.3 Post Implementation Landscape

With the initial implementation phase concluded and the first full-year financial statements under IFRS 17 completed, Irish life insurers are now focusing on optimising their IFRS 17 processes and preparing for ongoing compliance and reporting. The key areas of focus include:

- Continuous Improvement: Streamlining and automating IFRS 17 processes to enhance efficiency and reduce operational risks. This may involve further investments in technology and process re-engineering to eliminate manual interventions and improve accuracy.
- Training and Knowledge Sharing: Ongoing training and knowledge sharing are critical to maintaining compliance and adapting to evolving standards and best practices. Key initiatives include:
    - Refresher Training: Conducting periodic refresher training sessions to keep staff updated on IFRS 17 developments and reinforce key concepts.
    - Knowledge Platforms: Establishing knowledge-sharing platforms and communities of practice to facilitate the exchange of insights, experiences, and best practices among industry peers.
- Using learnings for future regulatory changes: As the regulatory environment is continuously evolving, the processes and learnings from the implementation of IFRS 17 can be used to adapt to future regulatory changes and developments. Insurers must continue to stay abreast of ongoing discussions and potential amendments to IFRS 17 and other related standards to ensure timely and effective compliance.

## 3.3 Solvency II Review

The review of Solvency II Directive has been in progress since 2019. In November 2024, the European Council approved the final texts amending the Solvency II Directive and introducing the Insurance Recovery and Resolution Directive (IRRD). The Directives will enter into force 20 days after they are published in the EU's Official Journal. 2 years' time after they enter into force, the Directives will go live.

The remainder of this section will cover the key amendments following the Review across the three pillars of Solvency II.

### 3.3.1 Pillar 1 Amendments

#### 3.3.1.1 Risk Free Interest Rate Extrapolation

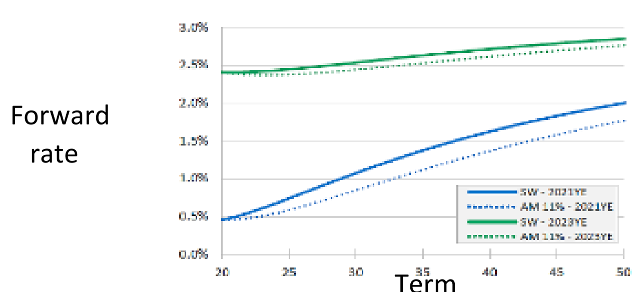
Currently the Solvency II yield curve is extrapolated to an ultimate forward rate (UFR) using the Smith-Wilson extrapolation method.

Under the new approach,

- Extrapolation of the yield curve will start from the first smoothing point (FSP)
- An alternative extrapolation method is used to extrapolate beyond the FSP, whereby a parameter (known as alpha) is introduced in the extrapolation formula to determine the speed of convergence of extrapolated forward rates towards the UFR.
- The extrapolated forward rates beyond the FSP are calculated as the maturity-dependent weighted average of the UFR and a liquid forward rate.
- By year 40, the weight of UFR should have increased to at least 77.5%. I.e. the convergence parameter alpha is roughly 11%
- Subject to prior supervisory approval, insurers are allowed to apply a phasing-in mechanism from the current approach to the new extrapolation method. This needs to be disclosed in the company's Solvency and Financial Condition Report (SFCR).

Figure 1 shows the yield curves under the current approach (Smith-Wilson, SW) and the new approach (Alternative extrapolation method, AM) for year-end 2021 and year-end 2023[5]. It is noted that the yield curve extrapolated using the new approach is slightly lower than the current approach. The impact of the new approach was more material at year-end 2021 when yield curves were lower and is less material at year-end 2023 when yield curves were higher.

Figure 1




[5] https://www.milliman.com/-/media/milliman/pdfs/2024-articles/2-29-24_amendments-to-the-solvency-ii-directive.ashx

#### 3.3.1.2 Volatility Adjustment

The Volatility Adjustment (VA) is derived from the risk-adjusted yield spreads of reference portfolios of assets made up of bonds, loans and securitisations for different currencies and countries. Insurers may apply the VA on top of the risk-free yield curve to discount Solvency II liabilities. The VA recognises the illiquidity characteristics of some insurance liabilities, hence mitigates against 'artificial' balance sheet volatility caused by short-term volatility of bond spreads and the value of fixed interest assets.

Under the new framework for the VA,

- A higher percentage of risk-adjusted spread (known as General Application Ratio, GAR) will be taken into account in the calculation of VA, up from the current 65% to 85%.
- The country component of the VA is replaced with a macroeconomic VA for euro countries, based on the country-specific reference portfolio.
- A company-specific credit spread sensitivity ratio (CSSR) is introduced, ranging between 0 and 1, to mitigate against the risk that the VA "overshoots" and compensates (re)insurers beyond the losses on investment from increases in credit spreads.
- Supervisory approval will now be required in all countries before applying the VA. Previously supervisory approval is not mandatory, although in Ireland the Central Bank of Ireland (CBI) has imposed this requirement since the adoption of Solvency II.

Overall, these changes are expected to result in an increase in VA. Actual impact is subject to prevailing market conditions and the undertaking's portfolio. Spread mismatches are expected to reduce following the new framework, particularly during the times of high stress leading to VA overshooting (which was the case during the beginning of COVID-19 pandemic).

#### 3.3.1.3 Matching Adjustment

The Matching Adjustment (MA) is another long-term guarantee measure that insurers can apply to the risk-free yield curve when calculating the best-estimate of liabilities. An insurer who has predictable cash flows on long-term liabilities is expected to hold the backing assets until maturity. Application of the MA prevents the insurer from being exposed to short-term market movement caused by spread fluctuations other than default risk and credit risk. Currently only companies in the UK and Spain apply the MA.

There are a few clarifications proposed. E.g. the underlying bases and methods used in MA calculation should be included in the SFCR section targeted at market professionals, instead of policyholders, and that risk diversification between the portfolio with the MA and the remaining part of the insurance business can be applied in full.

#### 3.3.1.4 Risk Margin

Under the revised framework,

- The cost of capital parameter is set at 4.75%, reduced from the current 6%. It is also proposed that the European Commission can amend the cost of capital rate 5 years after entering in force, subject to a corridor of 4% to 5%.

- A lambda factor, an exponential and time-dependent element, is introduced to account for the time dependency of risks. This effectively reduces the amount of the capital requirement used in calculating risk margin over time.

The level of the risk margin and the sensitivity of the risk margin to interest rate movements are expected to reduce under the new approach. The reduction is expected to be larger for undertakings with long-term liabilities.

#### 3.3.1.5 Interest rate risk SCR

Under Solvency II, the yield curve is shocked up and down to determine the interest rate risk. Under the current framework, if the yield curve is negative no downward shock is applied.

Under the new framework,

- Downward shocks will be applied to the yield curve even when interest rate is negative, with a term-dependent floor.
- The parameters used to determine the shocked interest rates for interest up and down scenarios will be based on a combination of absolute and relative shocks.

#### 3.3.1.6 Symmetric adjustment

The Symmetric adjustment (often referred to as the equity dampener) is a measure applied to the equity risk capital under Solvency II. It adjusts the equity risk capital based on market volatility, in turn smoothing the impact of short-term market fluctuations on capital requirement.

The range of symmetric adjustment is currently restricted to a range of ±10%. Under the new framework the range has been expanded to ±13%.

#### 3.3.1.7 Long term equities

The new framework proposed amendments to the criteria for undertakings to avail of a lower equity shock to long-term equity investments (LTEI).

### 3.3.2 Pillar 2 Amendments

#### 3.3.2.1 General Governance

Some new requirements include:

- Having a policy in place to promote diversity on the board, including setting individual quantitative objectives related to gender balance.
- Appointing different people to carry out key functions of risk management, actuarial, compliance and internal audit, to avoid conflicts of interest. An exception to this is for “small and non-complex” undertakings (note that specific criteria apply for undertakings to be classified as “small and non-complex”).
- Having a written policy on remuneration.

#### 3.3.2.2 Liquidity Risk Management Plan

Undertakings are required to prepare a liquidity risk management plan to support the analysis and the management of liquidity risk. Undertakings should develop liquidity risk indicators to identify, address

and monitor potential liquidity stresses. Details on its scope and frequency will be further clarified in Level 2 texts.

#### 3.3.2.3 Climate Change

Undertakings are required to assess whether they have any material exposure to climate change risks, and if so, to specify at least two long-term climate change scenarios, including:

- A long-term climate change scenario where the global temperature remains below 2 degrees Celsius, and
- A long-term climate change scenario where the global temperature increases significantly higher than 2 degrees Celsius.

#### 3.3.2.4 Sustainability

EIOPA will develop regulatory technical standards which specify elements to be covered in plans, quantifiable targets and processes related to financial risks arising in the short, medium and long term from sustainability factors.

Undertakings will need to:

- Develop and monitor the implementation of the plans, quantifiable targets and processes to monitor and address these financial risks.
- Disclose quantifiable targets on an annual basis.
- Consider the impact of sustainability risks on their investment strategy.

#### 3.3.2.5 Cybersecurity

Undertakings are required to include cybersecurity within operational risk management in its risk management system.

#### 3.3.2.6 Macroprudential Considerations

Undertakings are required to include macroeconomic considerations and potential sources of systemic risk in the ORSA, and its potential impact on the undertaking's risk profile, risk tolerance limits, business strategy, underwriting activities or investment decisions, and the overall solvency needs.

Undertakings are also required to take account of possible macroeconomic and financial markets developments when deciding on investment strategy under the Prudent Person Principle for investments.

### 3.3.3 Pillar 3 Amendments

#### 3.3.3.1 Deadlines

Annual reporting deadlines will increase under the new framework.

- Annual QRTs: from 14 weeks to 16 weeks
- Regular Supervisory Report (RSR) and Solo SFCR: from 14 weeks to 18 weeks
- Group SFCR: from 20 weeks to 22 weeks

Quarterly reporting deadlines remain unchanged, i.e. 5 weeks for solo QRTs and 11 weeks for group QRTs.

#### 3.3.3.2 SFCR

Under the new framework, the structure of the SFCR will be updated where it is split into two parts.

- The first part is addressed to policyholders and beneficiaries. It should cover key business information, performance, capital management, risk profile and any areas that are relevant for the decision-making of an average policyholder.
- The second part is addressed to market professionals. It should cover detailed information on the business, system of governance, specific information on technical provisions and solvency position.

In addition, external audit of the SFCR is required for the Solvency II balance sheet at a minimum, with the option for each member state's supervisor to also include the SCR and eligible own funds (excluding low risk profile undertakings). In Ireland, external audit of information in the SFCR is already in place.

### 3.3.4 Proportionality

The new framework introduces the criteria for undertakings to be classified as "small and non-complex" insurance companies. These criteria include thresholds on annual gross written premium, amount and proportion of cross border business written and amount of reinsurance accepted.

Undertakings who meet the criteria to be classified as "small and non-complex" will benefit from proportionality measures on supervisory reporting and disclosure (e.g. impact on RSR and SFCR reporting), governance (e.g. combination of key functions), revision of written policies, calculation of technical provisions and SCR, the ORSA and the liquidity risk management plan.

It is noted that captives may be classified as "small and non-complex", provided they also meet the additional proportionality criteria specific to captives. Undertakings that use partial or full internal model to calculate SCR cannot be classified as "small and non-complex" undertakings.

### 3.3.5 Recovery and Resolution Plan

Insurance Recovery and Resolution Directive (IRRD) sets out a recovery and resolution framework for insurance undertakings.

In Ireland, the CBI has developed the "Recovery Plan Guidelines for (Re)Insurers" and the Level 1 text S.I. No. 184/2021 - Central Bank (Supervision and Enforcement) Act 2013 (Section 48(1)) (Recovery Plan Requirements for Insurers) Regulations 2021. Undertakings in scope have already submitted the first Pre-Emptive Recovery Plan by 31 March 2022.

## 3.4 COVID Review

### 3.4.1 Excess Mortality

The Society of Actuaries in Ireland (SAI) released a comprehensive report examining excess mortality in Ireland during the COVID-19 pandemic[6]. This analysis covers the years 2020 and 2021, highlighting

[6] Report on the level of excess mortality in Ireland during pandemic years

the impact of the pandemic on mortality rates, methodologies used to calculate excess deaths, and implications for public health and future mortality trends. Excess mortality is a measure that quantifies the difference between the observed number of deaths and the expected number of deaths.

#### 3.4.1.1 Mortality Trends and Methodologies

Prior to the pandemic, Ireland saw significant improvements in mortality rates, with life expectancy at birth rising by over six years from 2000 to 2019. The COVID-19 pandemic interrupted these positive trends, necessitating an analysis of excess mortality to fully understand its impact.

To measure excess mortality, the SAI used Age Standardised Deaths, accounting for population changes to enable accurate comparisons across different years. The chosen benchmark period, 2017-2019, was considered appropriate due to its recent mortality trends and proximity to the pandemic years. This approach involved reproportioning actual deaths by age for each year to reflect a constant population size and age distribution, ensuring that the analysis accurately captured the pandemic's effects. By standardising deaths to the 2021 population size and mix, the analysis provided a clear picture of the pandemic's impact on mortality, free from distortions caused by demographic shifts. Different methods for calculating expected deaths yield varying results, emphasising the importance of selecting appropriate benchmarks and adjustments for demographic changes.

#### 3.4.1.2 Data

Previous studies utilised different data sources, including official mortality statistics from the Central Statistics Office (CSO) and provisional data from other organisations like the OECD. This report was prepared using finalised death data made available from the CSO. The report also acknowledges the challenges in obtaining timely and accurate mortality data, which were compounded by the HSE cyber-attack in 2021.

#### 3.4.1.3 Excess Mortality Results

In 2020, Ireland experienced marginal excess mortality, with a slight increase in deaths compared to the benchmark period. However, 2021 saw a significant rise in excess mortality, indicating a more pronounced impact of the pandemic. In 2020, stringent COVID-19 measures, reflected in a high stringency index, likely contributed to lower mortality rates compared to 2021, where restrictions were less stringent. Over the two years combined, approximately 1,100 excess deaths were observed. The oldest age group (85+) experienced the highest proportional excess mortality in both years, underscoring the severe impact of COVID-19 on the elderly population. The below Figure 2 shows the comparison of standardised deaths in 2020 and 2021 with the average annual standardised deaths for the different benchmark periods.

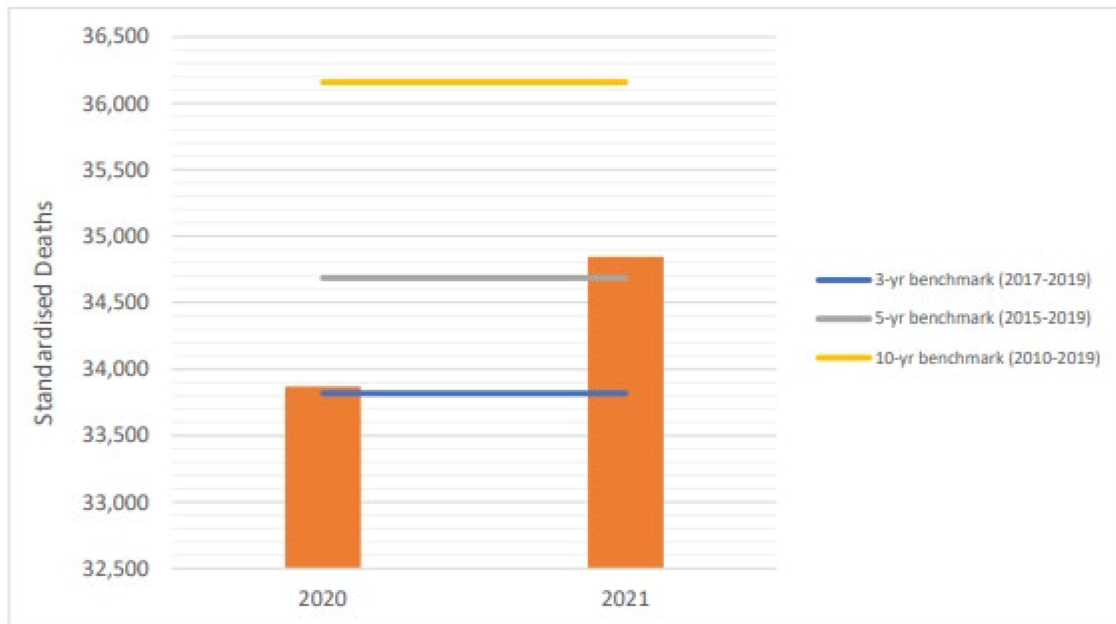



Figure 2: Standardised deaths for the period 2010-2021 – standardised relative to the 2021 population.

In 2020, standardised deaths were below the 5-year and 10-year benchmarks and closely aligned with the 3-year benchmark, indicating minimal to no excess mortality under any of these measures. In 2021, however, standardised deaths significantly exceeded the 3-year benchmark, slightly surpassed the 5-year benchmark, and remained below the 10-year benchmark. This suggests no excess deaths based on the 10-year benchmark, notable excess deaths with the 3-year benchmark, and minor excess deaths with the 5-year benchmark. These findings emphasise that the observed level of excess mortality during the Covid-19 pandemic is highly sensitive to the choice of benchmark period.

The report delves into the complex interplay of factors influencing future mortality, including the potential long-term effects of COVID-19, delays in medical treatments, and enhanced public health measures. The transition towards endemic COVID-19 highlights the ongoing uncertainty in mortality projections, making it crucial for public health policies to adapt accordingly.

#### 3.4.1.4 Conclusions

The findings of the SAI report emphasise the critical role of accurate excess mortality calculations in understanding the true impact of the pandemic beyond reported COVID-19 deaths. By employing robust methodologies and accounting for demographic changes, the analysis provides a nuanced understanding of the broader implications of the pandemic.

### 3.4.2 Experience Review Adjustments

The Covid-19 pandemic has impacted the life insurance industry in the areas of experience investigations and assumptions setting. Actuaries looking at trends in mortality and extrapolate these into the future are challenged by data that is difficult to interpret because of the turbulence caused by the COVID-19 pandemic.

The IFOA's Post-Covid Biometric Assumption working party completed a report of the approaches available for handling the experience post-Covid[7]. The findings of the report are summarised below and discuss the typical method used in setting assumptions and a few methods that can be used following the pandemic experience.

#### 3.4.2.1 General Assumption Setting Method

Before the onset of COVID-19, the process of setting biometric assumptions, such as mortality and longevity, followed well-established methodologies. These assumptions typically combined a base table representing current mortality levels and improvement rates reflecting future expectations. The key points in the traditional process included:

- **Experience Analysis**: Actuaries based their assumptions on an analysis of the portfolio's own historical experience. When only limited data was available, assumptions were supplemented with data from similar portfolios, adjusting for the statistical credibility of each dataset.
- **Improvement Assumptions**: Larger datasets were necessary to establish trends for improvement assumptions, often relying on population data. For example, the Continuous Mortality Investigation (CMI) model, a widely used tool, might be employed to fit historical improvements and project them into the future, typically converging towards a long-term trend assumption
- **Drivers of Historical Improvements**: For significant exposures, actuaries examined the underlying drivers of mortality improvements, such as medical advancements, changes in health behaviours (e.g., smoking, obesity), and socioeconomic factors. This detailed analysis helped refine assumptions and ensure they were aligned with expected future trends.
- **Mechanical Approaches**: The established methods often involved mechanical updates, such as adding another year of data to a rolling experience analysis or trend model. These approaches were stable and reliable due to the smooth progression of mortality rates before the pandemic.

The advent of COVID-19 introduced unprecedented volatility into mortality data, rendering these traditional methods less reliable. The pandemic disrupted the stable trends actuaries had come to rely on, necessitating new approaches to assumption setting.

#### 3.4.2.2 Methods to allow for pandemic experience

In response to the challenges posed by COVID-19, actuaries have adopted various strategies to adjust their assumptions. The report outlines three main approaches:

**Option 1: Ignore or Down-weight COVID-19 Data**

- **Approach**: This method involves excluding or reducing the weight of data from years heavily impacted by COVID-19 (i.e., 2020 and 2021) in the analysis. This approach is straightforward and rationalises the exclusion based on the belief that these years do not represent normal mortality conditions.
- **Merits**:

[7] Setting biometric assumptions in a post-COVID world

- **Pros**: Simplicity in application and the ability to avoid skewed results from pandemic anomalies.
- **Cons**: Valuable insights might be lost, and there is uncertainty on how to handle data from 2022 and beyond.

- **Application**: This method may be suitable for less material portfolios, where detailed analysis is not warranted. For more significant exposures, it might not capture the full picture of mortality changes.

**Option 2: Adjust Data Impacted by COVID-19**

- **Approach**: In this method, actuaries estimate the portion of deaths attributable to COVID-19 and adjust the data accordingly. This usually involves using population data as a proxy, with adjustments for factors like age and socioeconomic status.
- **Merits**:
  - **Pros**: Retains insights into other mortality drivers, allowing significant changes to remain visible.
  - **Cons**: The accuracy of the adjustments is questionable, and it might obscure or overstate changes in other mortality drivers.
- **Challenges**: Adjusting for COVID-19 assumes the impact was short-lived and does not fully account for long-term indirect effects, such as changes in healthcare access or economic conditions. This method might be more appropriate for portfolios with limited data.

**Option 3: Driver-based Approach to Adjusting Assumptions**

- **Approach**: This is the most comprehensive method, involving a detailed analysis of the underlying drivers of mortality changes due to COVID-19. The process includes identifying the main drivers, quantifying their impact, and projecting these effects into the future.
- **Steps**:
  1. **Identify Drivers**: Determine the key factors causing mortality changes (e.g., future COVID-19 spikes, economic environment, healthcare disruptions).
  2. **Quantify Drivers**: Estimate the short, medium, and long-term impact of each driver on mortality.
  3. **Consider Temporal Effects**: Evaluate whether the effects are temporary or have long-lasting implications.
  4. **Incorporate Findings**: Adjust assumptions based on the analysis, either through an explicit overlay or adjustments to existing models.
- **Merits**:
  - **Pros**: Provides a nuanced and well-informed basis for setting assumptions, incorporating detailed insights into the drivers of mortality.
  - **Cons**: Resource-intensive and requires significant judgment, making it less practical for smaller or less material portfolios.
- **Application**: This method is most appropriate for material exposures where a detailed understanding of mortality trends is crucial. It offers a sophisticated approach to handling the uncertainties introduced by the pandemic.

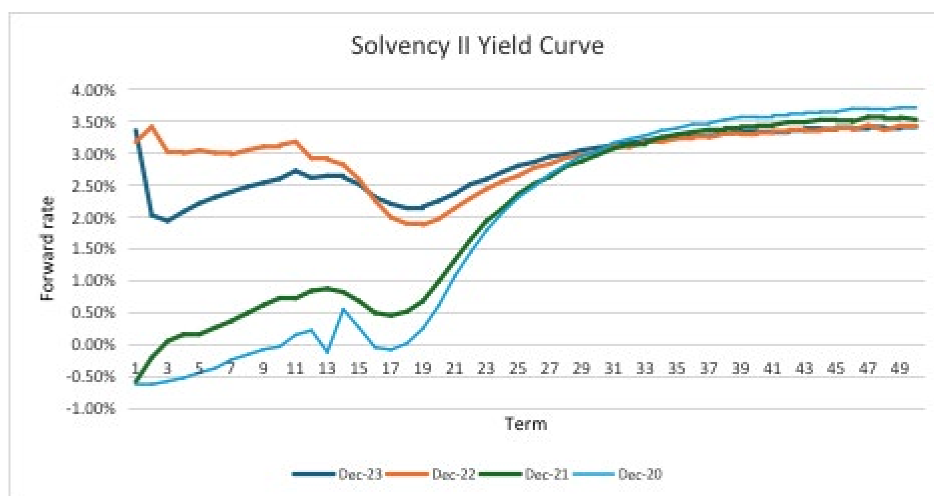
#### 3.4.2.3 Conclusion

The COVID-19 pandemic has necessitated a rethinking of traditional methods for setting assumptions. While simpler approaches like ignoring or adjusting data have their merits, a driver-based approach offers the most comprehensive and informed strategy for adjusting assumptions in the post-pandemic world. Actuaries must weigh the benefits of each method against the materiality of the portfolios they manage, ensuring that assumptions remain relevant and reliable in the face of ongoing uncertainty.

## 3.5 The Return of Positive Interest Rates

After a prolonged period of low interest rates, the market has seen an increase in interest rates over the past couple of years. As seen in Figure 3, the market has moved from a negative interest rate position to positive yields between year-end 2021 to year-end 2022. The average of the first 30 years of the Solvency II yield curve has increased from 0.7% at year-end 2021 to 2.5% at year-end 2023.

Figure 3




An increase in the yield curve, along with a heightened inflationary environment, has led to a higher cost-of-living. This has resulted in economic pressure that has influenced policyholder behaviour. For instance, policyholders may cash in their savings products to cope with the increasing cost-of-living. There is also an increase in competition among savings products, as policyholder may lapse existing insurance saving products in favour of other non-insurance savings products that offer higher returns.

When interest rates rise, the value of guaranteed surrender options can increase for some products, making surrender options more appealing. In addition, if the current market value of assets is lower than the surrender value of the policies, insurers may have to realize capital losses to fund these surrender values. Where possible, insurers have imposed surrender penalties which can offset losses from early lapses. However, in recent years, many companies have reduced these penalties to make their savings products more attractive to customers. This worsens the impact of rising interest rate on lapse experience on some products.

In 2023 the case of Eurovita in Italy showed the adverse impact that rising interest rates may have on life products. Rising interest rates coupled with inherent issues with reserving methodology have negatively affected Eurovita's solvency position and damaged consumer confidence, leading to a surge in lapses.

High lapse rates and a return to positive interest rates have shifted insurers' focus back to mass lapse reinsurance once again. Mass lapse reinsurance is a type of non-proportional insurance where a

reinsurer indemnifies the cedant when the lapse experience of a portfolio is higher than the best estimate lapse rate by a prespecified percentage over a given period. For an insurer who calculates the standard formula SCR and subject to regulatory approval, mass lapse reinsurance allows partial transfer of mass lapse risk and thus help to reduce lapse SCR capital and improve solvency position.

On the other hand, an increase in the yield curve can reduce technical provisions for some products due to higher discount rates, thus improves the insurer's solvency position. Over the past couple years, the market has seen several adjustments made by the insurers to their investment strategies. This includes a reduction in cash balances in favour of other asset classes with higher yields, as well as other market hedging strategies.

As insurers actively react to the higher interest rate environment, this has also brought opportunity in the space of product development and pricing activity to meet changing consumer needs. For example, insurers who sell annuities see beneficial impact on the book. When interest rates are high, returns on premiums invested increased, thus enhancing the benefits the insurers can offer to policyholder via higher annuity payouts. For other long-duration products, there is potential for insurers to offer options and guarantees through greater cash value accumulation.

For unit-linked business, the impact of changing interest rates is mainly seen on non-unit related cashflows. Rising interest rates means higher unit growth rates which increases the net asset value (NAV). Along with higher discounts rates, this reduces the cost of death (present value of additional death benefits) and administrative expenses. As the present value of future profit increased, the technical provisions reduced. On the other hand, the impact of the interest rate on fund-based cashflows is often limited as the unit growth rate and discount rate can somewhat offset each other.

Under the new interest rate environment, insurers may need to put their focus back on to interest rate risk again. Insurers may consider a greater range of interest rate stresses instead of the default flat fixed percentage up/downward shock on the yield curve. Insurers may consider changes in the level of up/downward shock on yield curve, the shape of yield curve as well as yield curve under the new methodology proposed in Solvency II Review. As policyholder behaviour may differ among these scenarios, its impact along with changing lapse rates and accompanying management actions should be adequately reflected in scenarios considered.

## 3.6 Right to be Forgotten

**Background of Right to be Forgotten Frameworks**

The introduction of the Right to be Forgotten (RTBF) aims to improve access to financial services for cancer survivors by ensuring that their prior diagnosis of cancer no longer needs to be disclosed when applying for life insurance – typically after a specified period in remission. The initiative is proposed with the intention to remove barriers that cancer survivors often face, such as higher premiums, denial of coverage, or lengthy underwriting processes. RTBF frameworks have been implemented across Europe through legislation or voluntary codes[8] For example:

- France pioneered RTBF in 2015 with the AERAS Agreement, later updated under the *Loi Lemoine* to shorten remission periods and broaden eligibility.

[8] Insurance Inclusivity and the Right to Be Forgotten | Scor

- Other countries, including Belgium, the Netherlands, and Spain, have since adopted RTBF frameworks, each tailoring policies to local contexts.

In Ireland, discussions on RTBF were catalysed by the Central Bank (Amendment) Bill 2022[9], which proposed that cancer survivors who had been in remission for five years should not have to disclose their medical history when applying for financial services. Although this legislative effort has not advanced, the life insurance sector in Ireland has taken proactive steps to improve outcomes for cancer survivors.

**The Society of Actuaries in Ireland's 2023 Report (April 2023)**

In April 2023, the Society of Actuaries in Ireland (SAI) published a comprehensive report evaluating the potential impacts of an RTBF framework in Ireland[10]. The paper examined the existing life insurance provisions for cancer survivors and evaluated the possible impacts of alternative RTBF frameworks on individuals with and without a history of cancer.

Key findings from the SAI report include:

1. Market Analysis:
    - Between 2014 and 2022, an estimated 17,000 cancer survivors applied for life insurance in Ireland, representing c. 1.7% of total applications. Of these, c. 62% applied more than five years after completing treatment, highlighting a significant cohort that could be impacted by the introduction of a 5-year RTBF framework.
2. Underwriting Practices:
    - Most insurers use an automated underwriting process to streamline the application process.
    - Most applications with a cancer disclosure were referred for individual consideration. A manual underwriting process is then carried out.
    - The report found that the underwriting outcomes for cancer survivors varied significantly depending on the type and stage of cancer, as well as the time elapsed since treatment ended.
    - For those with 10 years post the end of treatment, life cover was available for all scenarios assessed and, in most cases, there was no additional premium payable.
    - For those with 5 years post the end of treatment, life cover was available for most scenarios assessed but there was more likely to be an additional premium payable.
3. Potential Consumer Impacts:
    - A RTBF framework is likely to improve access and affordability of life insurance products for cancer survivors but may introduce additional cross-subsidisation, leading to modest premium increases for other consumers.
    - Consumers who have other illnesses or diseases may feel unfairly treated.

[9] Central Bank (Amendment) Bill 2022

[10] Paper - Right to be Forgotten framework for Cancer Survivors

**Insurance Ireland Code of Practice**

The Insurance Ireland Code of Practice for Underwriting Mortgage Protection Insurance for Cancer Survivors[11] (the Code) was implemented in December 2023. Both members and non-members of Insurance Ireland have signed up to the Code. The Code applies to decreasing mortgage protection insurance. Insurance Ireland noted that they and their members believe the Code will lead to a faster, more streamlined process for those impacted. They see the approach as a pragmatic solution that appropriately balances the needs of cancer survivors without causing a reduction in availability of cover for other consumers.

Key Features of the Code:

1. Eligibility Criteria:
    - Applicants must have completed treatment (there are specific definitions for this set out within the Code) more than seven years earlier if diagnosed as adults or more than five years earlier if diagnosed before age 18.
    - Coverage applies only to principal private residences, with a maximum sum assured of €500,000 per (cancer surviving) applicant.
    - The Code applies solely to decreasing term life insurance linked to mortgage protection. Other forms of life insurance, critical illness cover, or income protection are excluded.
2. Outcome:
    - Applications meeting all of the criteria will not be rejected and are not subject to higher premiums related to the cancer diagnosis.
3. Oversight and Compliance:
    - An external reviewer will evaluate the implementation and adherence to the Code, with the first review scheduled for January 2025 and reviews will happen every three years after that.

## 3.7 Fertility Trends

We are living through one of the most significant periods of demographic change in human history.

[11] Insurance Ireland Code of Practice for Underwriting Mortgage Protection Insurance for Cancer Survivors

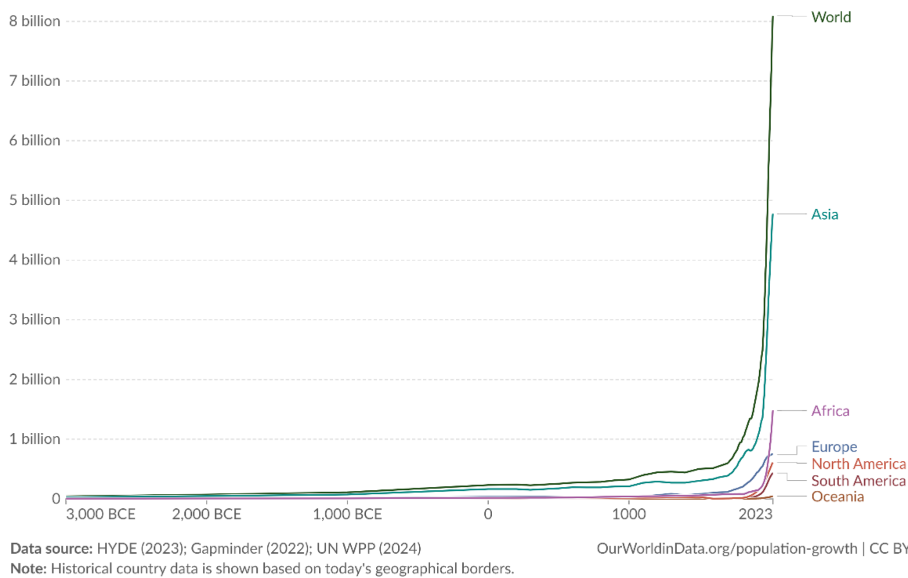



*Figure 4: Population growth since 3000BC, UN*

In the last c5000 years, which is an incredibly short length of time relative to human existence, the population has exploded, increasing from less than 45 million in 3,000 BC, to a population in 2023 of over 8 billion. Within this period, our population has become 180 times larger. However, it is over our lifetime that we will see this begin to level and even shrink according to UN projections:

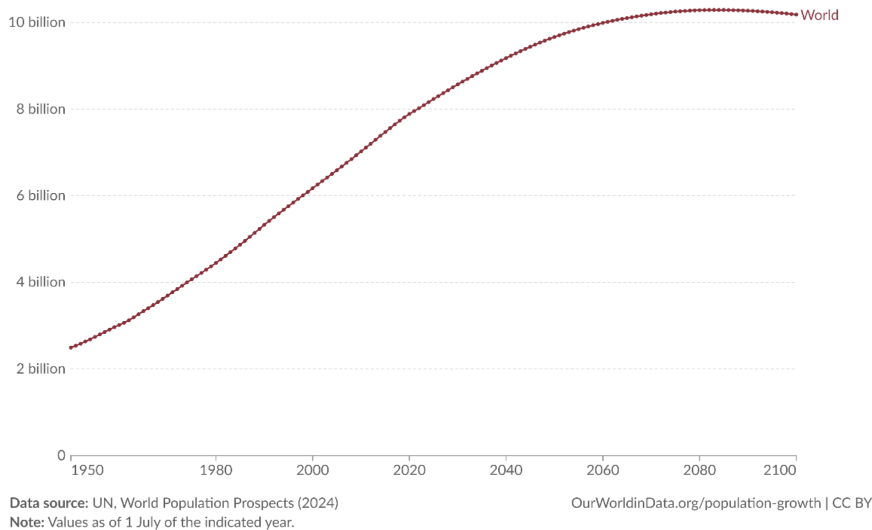



*Figure 5: Global population projected from 2024-2100, UN*

Above is the UN World Population Perspective's best estimate scenario. Here you can see a certain amount of projected continued growth left before we enter a period of levelling and subtle decline. This is a stark levelling off relative to *figure 4*. The last few generations witnessed the great incline; we will likely experience the great levelling.

There are two primary driving factors causing this, fertility and mortality. Given the wealth of actuarial literature around the mortality aspect of our aging population, this section will focus on fertility trends,

factors and the impact it has on our future population volumes. These trends will be felt in our global economy, workforce, migration, taxation, healthcare structures, retirement planning, product designs, market sizes and many other actuarially relevant areas.

Fertility refers to the reproductive rate of a population, measured by the production of live offspring. It is most commonly measured either by the number of live births per woman over her lifetime or live births per unit population in a given period (crude birth rate). Demographic Transition Theory links drops in mortality rates with lagged falls in fertility rates (Soares, 2005); however, as we will see in this paper, there is much more to consider.

For the purposes of this section, it will be useful to define the following:

- **Total Fertility Rate (TFR):** average number of children a hypothetical woman would be expected to have over her lifetime, assuming she lives through her entire fertility period.
- **Natural Population Replacement Rate:** Generally understood to be 2.1, it is the average number of live offspring a woman must have, to ensure a population remains stable, assuming no immigration or emigration. The reason it is marginally above two is to allow for the small probability a child does not make it to a reproductive age and to allow for the fact that it is very marginally more likely that a child will be male.
-

Many factors influence the rate of fertility. They do not act independently and interact with each other. These interactions are an important consideration when modelling fertility, which will be discussed later. The purpose of modelling these rates will be to assess likely economic and social impacts, including both their tempo and severity, and plan accordingly. These impacts will be discussed in more detail below.

There are a number of stakeholders who are interested in fertility and population trends. Some may feel the impacts very directly, whilst others will eventually experience slower second order impacts. Actuaries, policy-makers, economists, product designers, retirement planners, healthcare planners, and demographers are just a few of the notable interested groups.

Across continents, Total Fertility Rate has been decreasing since c1970-1980, as seen below:

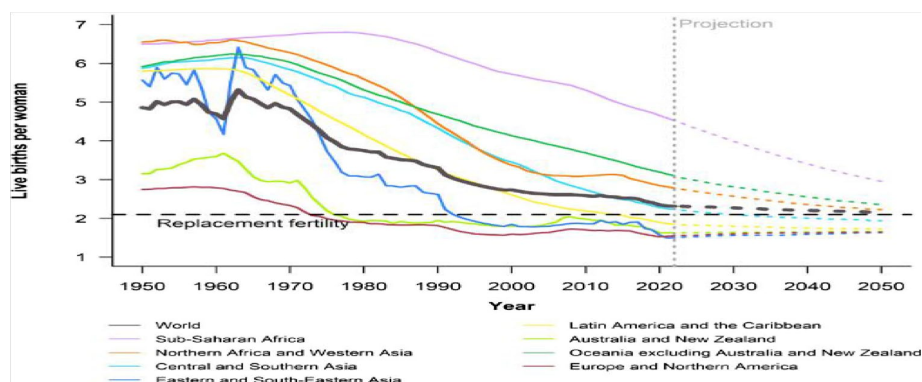



*Figure 6: Fertility by geographical region, UN*

For all continents that are still above replacement fertility (natural population replacement rate), these trends are expected to continue. No continents are projected to have any meaningful increase in future years. We observe the lines converge somewhat close to the replacement rate (2.1). Importantly however, the more developed regions are all well under this rate.

There are some interesting tempo effects within the data, in addition to the dropping fertility. Over the last two decades in particular, the average age of a mother at the time of her first-born has been increasing. In the US, the average age has gone from 25.4 in 2010, to 27.0 in 2019, with the average age at any given birth going from 27.7 to 29.1. Other trends similar to this can be seen in Ireland:

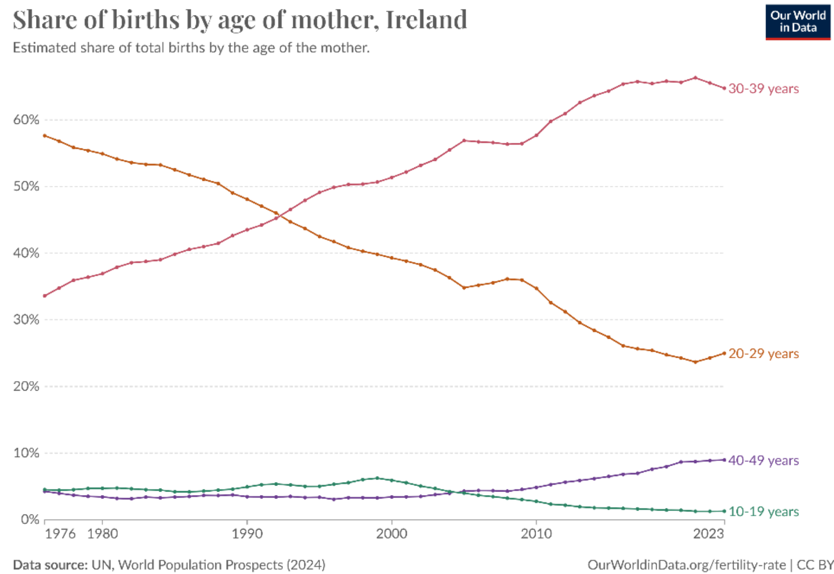



*Figure 7: Irish share of births by age, Our World in Data*

Since the mid-1970s, Ireland has seen the average age of a mother at childbirth change drastically. Today we see almost two thirds of children being born to mothers in their 30s. Over a similar period, we also witness Irish women having significantly fewer children:

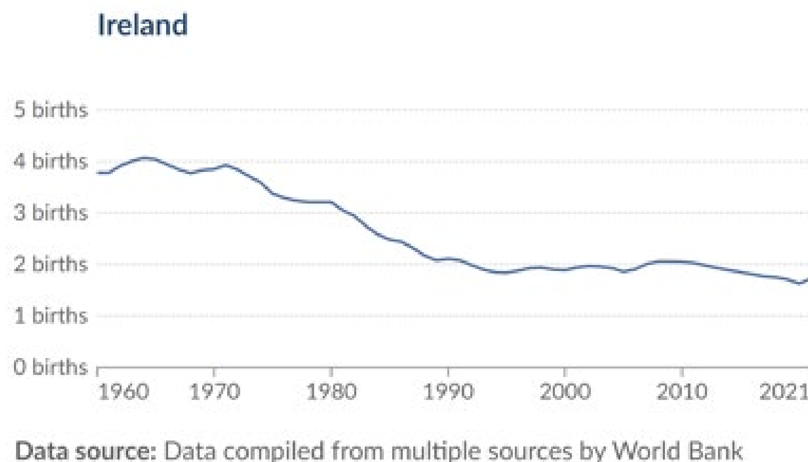



*Figure 8: Average births per woman in Ireland over time, Our World in Data*

These Irish trends are commented on in detail by the CSO, who state that there is an increasing trend towards later births, with the average age of first-time mothers in Ireland rising by 5.7 years from 26

years in 1985 to 31.7 years in 2021.[12] This is very typical of trends we see globally in developed countries.

Although fertility rates are shrinking, we are currently still adding c130 million to the planet every year. This is because in the last 70 years, the number of women in the reproductive age bracket (15-49 years) has tripled according to UN data backing *figure 4*; therefore, this will have a positive impact on population numbers over the next generation, even if the number of expected births for any given person is shrinking.

The factors provoking these trends, how we might project future trends and their present and expected future impacts, are all discussed below. If you find this overview of interest and would like to read a more comprehensive assessment of the topic, *Fertility and ageing – actuarial perspectives (Yair Babad, Dermot Grenham and Sam Gutterman)* is highly recommended. [13]

**Factors Influencing Fertility Change**

Changes in job types in a country, particularly in periods of economic development have a significant impact on a country's TFR projections[14]. A move away from rural living towards more urban living, usually reduces TFRs. Children who would have been perceived as net household contributors (as they could either help in family business or agricultural tasks), become net financial burdens. In developing countries, rural areas tend to have significantly higher fertility rates, with an average of 1.5 more children. This was remarked upon by India's minister of population, Karan Singh, as: "Development is the best contraceptive."

Gender equality improvements have been another one of the most influencing factors in the reduction of fertility. Increasing empowerment of women in society, equality of education and increased participation in labour forces has prompted much greater birth planning and control to better facilitate women's careers and other life goals. The data shows women who are more educated tend to have fewer children:

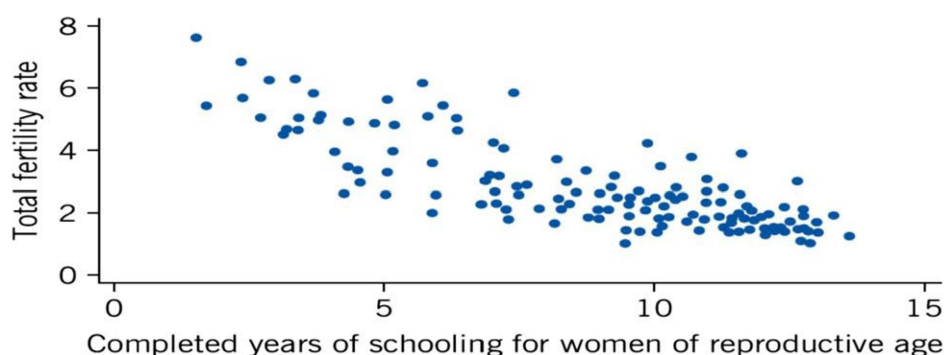



Figure 9: Female schooling and fertility in selected countries, Kim (2016).

[12] https://www.cso.ie/en/releasesandpublications/ep/p-plfp/populationandlabourforceprojections2023-2057/fertilityassumptions/

[13] https://www.cambridge.org/core/journals/british-actuarial-journal/article/fertility-and-ageing-actuarial-perspectives/ECDC146B5845433120370D627273C112

[14] https://pmc.ncbi.nlm.nih.gov/articles/PMC2834382/#:~:text=Our%20discrete%2Dtime%20event%2Dhistory,effects%20of%20urban%20adaptation%20itself

Enforcing this point, there is a very clear correlation between the share of women with no education and country's ultimate fertility rate:

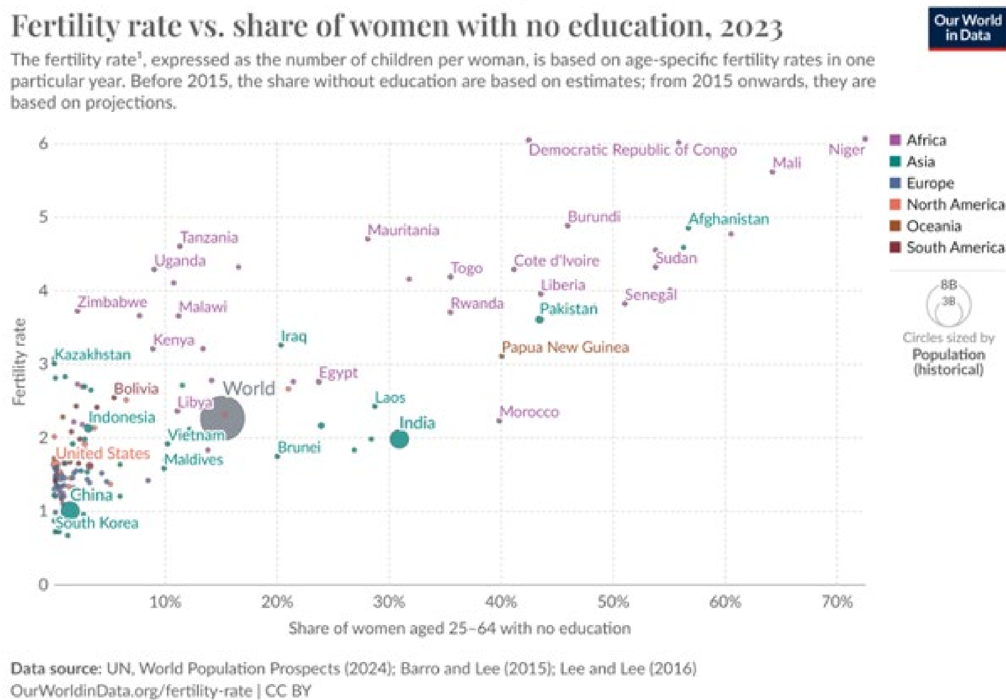



Figure 10: *Fertility vs No Education Percentage, Our World in Data*.

What we can conclude from this is that education levels are something that modellers should consider as a key driver when projecting fertility, particularly in developing countries.

Contraceptive improvements and sexual education also leads to reduction in the average number of children per woman. Worldwide, we see large downwards trends in teenage pregnancies, however there have been exceptions. From 2015-2020, 34 countries had at least 80 births per 1,000 adolescent girls aged 15–19, of which 29 countries were in Africa, 4 in Latin America and the Caribbean, and 1 in Asia[12].

In many countries, particularly with Christianity, we see a shift away from people practicing religions. An example is in the USA where 65% of American adults describe themselves as Christians when asked about their religion, down 12 percentage points over the past decade.[15] Communities with high religious practice percentages often correlate with much higher TFRs. If these groups make up a large proportion of a country's population, this effect will be seen in the national TFR stats. A good example of this is in Israel, where the country's TFR was 3.16 in 2019, but the TFR was 6.56 with Ultra-Orthodox Jews and only 2.05 for those who are not religious[1]. In the past few decades, Ireland has also seen a huge decline in practicing Christians[16]. It is quite possible that this is a contributor towards the fertility trends experienced.

We are also seeing a reducing culture obligation to have children. Having children is now a less automatic decision, with the decision not to have children becoming more common and socially

[15] https://www.pewresearch.org/religion/2019/10/17/in-u-s-decline-of-christianity-continues-at-rapid-pace/
[16] https://www.cso.ie/en/releasesandpublications/ep/p-cp8iter/p8iter/p8rrc/

accepted. There are many reasons for this including financial concerns around dependents in an uncertain economic environment, a delay in being able to get on the property ladder, environmental concerns, people want to focus on their own life goals and experiences, just to name a few.

As per European Commission data, people are also later to settle down and get married or form long-term relationships for similar reasons. As fertility decreases between ones 20s and 30s, this has a negative impact on the number of births per woman, all else equal. Commonality of divorce has increased over the last few decades in most developed countries and tends to have the opposite trend to a country's religious practice trends.

Abortion and sterilisation has also been legalised in a number of countries over the last few decades. This factor also acts as a suppressant to a countries' TFR and should be considered when modelling, particularly in countries where there have been changes in the legality around pregnancy termination. A good example of this would be in the US where the incoming president, Donald Trump, intends to substantially reduce abortion rights nationwide.

Fiscal policies and government support, which will be discussed in much more detail in the impacts section, can cause changes in fertility rates. However, in the period immediately after introduction, it is very hard to gauge whether the policies will materially increase TFR, or whether it just increases the pace at which the same number of children are being born. United Nations (World Population Policies, 2021): "While various approaches and initiatives to lower fertility have shown results globally, reversing the long-term downward trends in total fertility that are the outcome of social, economic, and cultural transformations, has proven to be much more difficult". [17]

Economic uncertainty and personal finance pressures play a huge role in fertility. This correlation often varies between socio-economic categories, but in recent generations as a general rule, economic uncertainty can play a role in lowering desires to have children. A lack of confidence in the future health of a couple's finances is likely to create apprehension. Any events which have a second order impact on the economy (e.g. a pandemic), are likely to have similar effects. Sometimes these periods will be followed by periods of increased fertility once future conditions look more stable (e.g. after World War Two). However during the Spanish Flu, fertility rates dropped and never recovered, as was also the case with the 2007-2008 financial crisis.

Reproductive technology availability and take-up may also need to be considered. An example of such technology is in vitro fertilisation. The intentions of these methods are to help extend the fertilisation period, or to assist with fertility issues. Although seemingly a contributor to increasing fertility rates, the impacts may not be this simple as the ability to use these methods may give people more confidence to wait to older ages (where fertility is less certain) to have children.

Immigration can often cloud fertility trends within a country. It is very common to see a temporary shift away from decreasing fertility rates, as a country begins to have more immigrants from countries which typically have higher birth rates. The severity of this can depend on the average age of these

[17]https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/undesa_pd_2021_wpp-fertility_policies.pdf

immigrants and whether they moved across as a family. These changes tend to be short lived as second generation immigrants often conform to the nation's reproductive cultures. Below shows how the immigrant portion of the US population pulls up the overall population TFR:

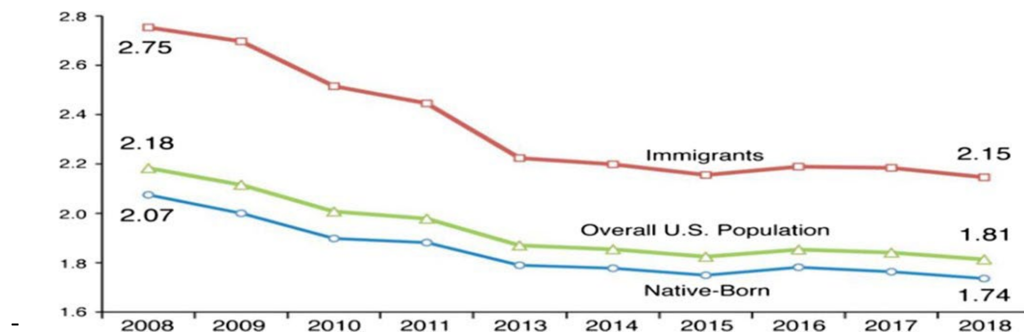



*Figure 11: Immigration Impact on US fertility rates, Source: Camarota and Zeiler (2020)*

In some places e.g. Scandinavia, Covid-19 measures such as improved parental leave and remote working cultures, have seen a positive impact on fertility rates[1]. Such measures allow couples to pursue career goals and live in more affordable places. This creates an environment where having children is less of an opportunity cost.

Gender ratio (ratio of males to females), can also be a significant driver. In the case of China for example, there are significantly more males than females at fertile ages due to China's One Child Policy, running from 1979 to 2015. Though China introduced a two child policy in 2016, and a three child policy in 2021 (along with government support for families), the fertility rates have been slower than expected to respond. This shows that indicatory factors, both in speed and magnitude, need be interpreted with caution and an understanding that cultural norms which are embedded in society can be slow to reverse.

**Modelling Considerations**

Modelling fertility is not a traditional or common actuarial task. Actuaries' models tend to focus on immediately available business or portfolios already written, and hence are more concerned with mortality and morbidity trends. However, companies wanting to take a longer-term view of business impacts and pre-empt future market sizes, changes and desires are beginning to focus more on this topic, particularly as we see the significant impact these trends are having in countries who are further into their fertility decline.

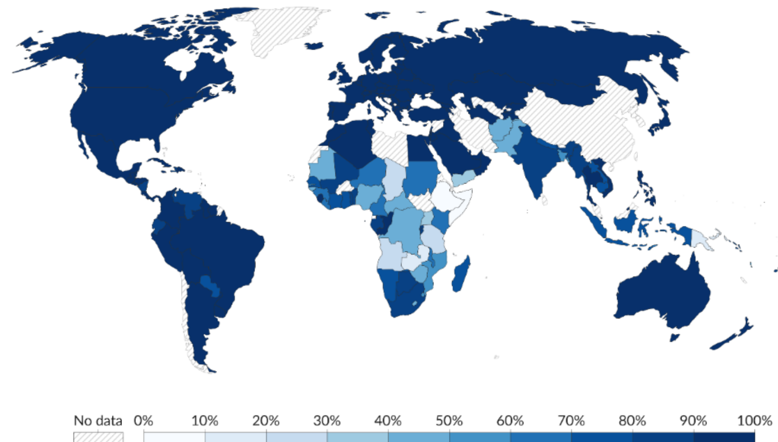
Creating appropriate cohorts is a key factor when modelling fertility. Even if the end result is to present a higher level expectation, it is important to model at sufficient granularity before aggregating, as different cohorts behave in very different ways. Some segmentations are obvious, such as country, level of development, level of urbanisation, education levels, etc. We also need to consider more nuanced splits such as religious beliefs, economic outlook, marriage rates, levels of sexual education, rate of country development, etc. A lot of these factors are correlated. Care needs to be taken to have sufficient levels of splitting to project with accuracy, whilst ensuring projections aren't so granular that it produces spurious results.

Like any modelling process, data availability, data completeness and data accuracy needs to be considered. Fertility data quality varies geographically in its regularity, level of accuracy and level of

detail collected. For example, some countries will carry out surveys at a detailed level, collecting relevant information such as age, location, salary, schooling level, marital status etc. whilst other surveys may be much simpler in nature (this is particularly common the further back in time we go) or in some cases incomplete:

Share of births registered, 2022

Percentage of children under age five whose births were registered at the time of the survey. This includes children whose birth certificate was seen by the interviewer or whose mother or caretaker says the birth has been registered.




Data source: World Bank World Development Indicators (2023) OurWorldinData.org/population-growth | CC BY

*Figure 12: Global Data Availability 2022, Our World in Data*

When projecting results, the data quality will need to be appropriately disclosed. As seen in the above graph, if fertility modelling was carried out using African countries' data for example, the results are not likely to reflect reality unless expert judgement is applied to correct for substantial missing data. Sensitivities and confidence intervals will also need to account for this.

Changes in desired family size can be a useful starting point when trying to model. However, the actual rates tend to be lower than these expected rates suggest. A European and US study showed that the rate usually ends up 0.3-0.5 children lower than the expectation[18]. Standalone events may also need to be considered in modelling processes, whether they have actually happened, or are hypothetical for the purposes of scenario testing. For example, wars, pandemics, extreme culture change, mass migration events (e.g. caused by climate change), changes in fiscal policies etc.

Here we see an example of projection from the United States Office of the Chief Actuary, forecasting fertility amongst age cohorts:

[18] https://link.springer.com/article/10.1007/s11113-019-09516-3

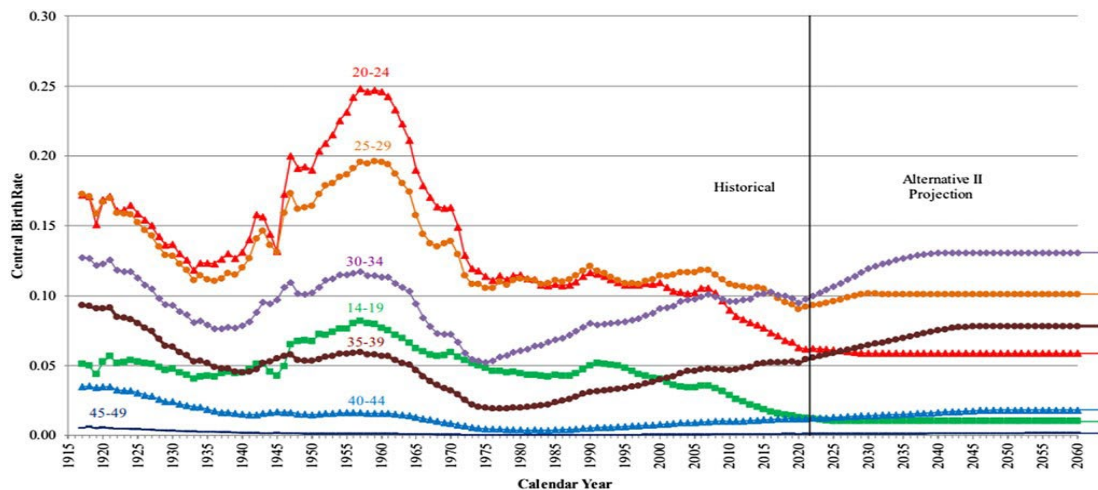



*Figure 13: Central birth rate versus year in the United States, Office of Chief Actuary, 2023*

Within cohorts, transition probability tables can be used in a more sophisticated modelling approach. For example these tables can be constructed by female age and the assumptions can contain the probabilities of having one or subsequent children. These transition tables may need to be unique to each respective major driving factor within a population e.g. marriage status, religion, socio-economic grouping, location etc. They can be useful, for example in cases where a country introduces an incentive to have 3 or more children, we can use the transition table to reflect the increased expectation of women having three children. Of course, the reliability of these assumptions will depend on data volumes, accuracy and completeness.

In almost all cases, modelling rates consist of age-specific rates, increasing from the earliest fertility age (c.12-14 years), peaking in female's 20s or 30s, and then gradually decreasing until around the age of 50. Fertility at one time was a "heavy left tail distribution". This is still the case in some countries e.g. it is more common in Sub-Saharan countries. In more developed countries, age vs fertility distributions have shifted to a more symmetrical or even a heavier right-tail distribution, accompanied by an increase in average age at birth. This should be considered during the modelling process.

Cultural changes can be even harder to model and can invalidate modelling assumptions. An example of this is the internet, and in particular social media, which contributes to globalised outlooks on social norms around childbearing. These norms relate to things such as expectations of relationship permanency, marriage age and pressures to have children. It is important that modelling factors do not expect past trends or other countries' past experience to exactly inform future expectation. Instead careful consideration is given to other factors which may also be acting on the variable.

As with any type of modelling, the magnitude, tempo and permanency of any factor needs to be considered. Where relevant, factors should not be considered in isolation. There could be correlation (amplification or diversification) between drivers, which will affect their impacts in aggregate.

One of the most useful types of fertility modelling will be scenario testing. This deterministic approach will inherently be a select number of scenarios tests, and expert judgement will need to be exercised. Assumption setting should consider probability distribution (and in particular tails of the distribution)

of drivers. Doing this will allow modellers to caveat best estimate projections, set the appropriate confidence intervals and carry out the most appropriate stress testing.

A comprehensive white paper (Probabilistic Projections of the Total Fertility Rate for All Countries for the 2010 World Population Prospects[19]) is an exceptionally useful resource to use as a starting point for considering how to structure fertility modelling. Their methodology is built on the current deterministic UN methodology for producing the World Population Prospects (WPP). It uses a Bayesian hierarchical model that takes strength from all countries when projecting TFR for a single country. The fertility transition is modelled using the double logistic function currently used in WPP, but allowing a more flexible range of possible parameterizations. The post-transition low fertility phase is modelled using an autoregressive model that varies around replacement level. The model is estimated from UN estimates of past TFR in all countries using a Markov chain Monte Carlo algorithm. The paper describes how the modelling is carried out in R. Another useful UN modelling paper can also be found below.[20]

We can also carry out time series stochastic modelling of the TFR (number of children per woman). Another alternative is cohort modelling, similar to that of the Lee Carter Model for mortality. Using this approach we can model age specific fertility rates over time, allowing for random deviations from expected trends over time. The calibration challenge with stochastic modelling is getting reliable and representative distributions.

**Considerations for the Future**

Projecting TFR will act as warning signs for many, particularly for countries' economists and policy makers. However, it is also important for other stakeholders and markets. It will impact markets within retirement, insurance, health, education, housing and many others. Most industries in developed countries commonly associated with actuarial work are likely to experience subtle decline. Less people mean less car insurance, home insurance, mortgage and other credit cover requirements, less health care demand, fewer people working and investing, less construction, fewer pensions, just to name a few. When and where it will be felt will depend on what stage of the fertility cycle the country is in.

It will also affect climate change, environmental stress (including land usage, deforestation, fossil fuel usage, ocean depletion, biodiversity depletion etc.), educational infrastructure and many other non-financial areas. Naturally, fewer people should demand fewer resources in the future.

In order to stave off the increasing dependency ratio (age-population ratio of those typically not in the labour force and those typically in the labour force - it is used to measure the pressure on the productive population), countries have options such as increasing national retirement ages,

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[19] https://population.un.org/wpp/publications/Files/Raftery_2009_Total%20Fertility%20Rate%20for%20All%20Countries%20for%20the%202010%20WPP.pdf

[20] https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/undesa_pd_2023_technical-paper_asfr.pdf

incentivising part time work post retirement age or reducing the amount of benefits given to any given person. It is particularly feasible as people are living longer and healthier lives.

GDP is likely to reduce and economic growth will slow. This can be somewhat offset by improvements in technology, automation or population's percentage participation in labour forces. Fewer people will naturally shrink markets and as these now smaller populations urbanise, many industries and institutions are already feeling this squeeze. For example; schools, universities, real estate, auto motives, hospitality, travel and many others. Effectively all markets will eventually experience reducing potential customer numbers, where their customers' countries remain below the replacement rate.

Naturally, fewer people in an economy is also likely to reduce the number of new ideas and therefore will have a suppressing effect on innovation and entrepreneurship. This can be somewhat offset if the declining country is also going through a period of material education improvement.

Housing is one of the most tangible impacts that countries are currently experiencing. The best example of this is in Japan, one of the oldest populations in the world, where they are experiencing a phenomenon of "Akiya" (*Empty House* in Japanese). Over a quarter of Japan's population is greater than 65 years old. Japan has seen substantial numbers of houses, communities and towns left completely abandoned due to population decline and urbanisation. Property owners and inheritors are now trying to give these properties away for free or at a very significant discount, in order to avoid costs of upkeep and tax on a property with limited use to the owners. However, these properties tend to be in areas that are not geographically close to urbanised areas, where most of the jobs are. This makes it difficult for younger people to see them as a viable base.

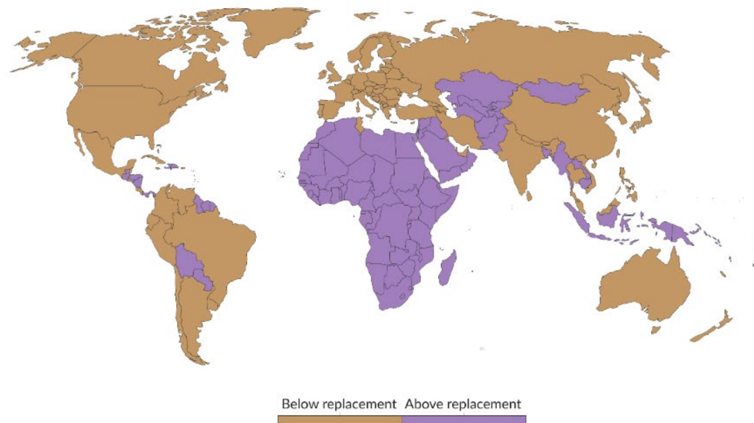
Other countries are experiencing similar issues. Italy, well known for having an aged population, is experiencing mass vacancies in areas such as Sicily and Calabria. In these areas, homes under the €1 scheme are common (price of homes are only €1 providing there is a commitment to renovation). Spain, South Korea, Germany, Portugal, USA, China and many other countries are now also experiencing this issue and have introduced incentives in an attempt to combat and reverse it. In all these countries, urban congestion continues to exist, with rising house and rent prices meaning fewer people can afford to buy. In addition, with more elderly people in these areas, the demand for retirement housing and assisted living is increasing.

Caring for an aged population will have to be funded at least in part by the public sector via taxes. There is a continually reducing taxable workforce and therefore continuing to fund this care to an acceptable standard will remain a challenge.

Reliance on immigration will continue to change, as this is one of the most powerful and obvious levers for developed countries to pull to plug economic slowdowns and labour gaps. In the below graph, you will note that most of the world is now below Replacement Level (purple areas), excluding Africa and parts of Asia:

Countries with fertility rates above or below replacement level, 2023

Fertility rates measure the average number of live births per woman. The "replacement level" is the rate at which population size remains constant from generation to generation; this is crudely defined as 2.1 births per woman.




Data source: UN, World Population Prospects (2024) OurWorldinData.org/fertility-rate | CC BY
Note: The total fertility rate is the number of children born to a woman if she lived to the end of her childbearing years and gave birth to children at the current age-specific fertility rates.

*Figure 14: Replacement Rates Globally, UN 2024*

Developed countries with high economic output but a low TFR may need to look to other countries whose TFR is still well above the replacement ratio to help plug workforce demands.

As noted in earlier graphs, African and Asian countries, which have a high TFR, have a unique opportunity to see a significant “Demographic Dividend” - a theory coined by economist David Bloom in the late 1990s. As developed countries’ workforce and economic output continue to shrink, these countries can harness their population’s age structure to stimulate large economic growth. Of course, this growth is not a guarantee based on workforce numbers alone but will also require investment in education and effective economic planning. We are already witnessing this in countries which specialise in high demand global goods that require a significant work force, for example textile, agriculture and tech manufacturing. As the West continues to become more reliant on these imports, these countries can continue to demand fairer pricing, more favourable policies and working conditions. It is also possible that these workforces will hold more diplomatic bargaining power, which can be used by the countries to pursue their own interest.

As noted in the *Fertility and ageing* paper [1], in 1950 5% of the global population was 65+, while it is currently estimated that by 2100, 22.6% of the population will be 65+. In 1950, each person 65+ had 10 workers, who would generate taxes to support their needs. In 2100 it is estimated that there will only be 2.4 workers per person at 65+. This is concerning and is prompting very deliberate economic thought on the topic by policymakers. In 2012, workforce volumes reached their peak in Europe. Without fertility rate changes or material changes in immigration policies, Europe is set to lose over 25% of its workforce by the 2050s.

Many developed countries have now introduced financial incentives to combat their declining populations:

- Hungary: Income tax exemption for life for mothers with four or more children, subsidised family homes, interest free family loans, support to buy a car for families with three or more children etc.
- Italy: Up to €2,000 per child every year, tax deductions, subsidised childcare etc.

- Russia: "Maternity Capital" similar to the above, including a $7,000 payment upon birth of second child.
- Estonia: Provides up to 18 months of paid parental leave, along with regular benefits for every child born.
- China: Three child policy as of 2021.

These are just a taste of what some countries are doing. Almost all developed countries are increasing their incentives, showing the level of international concern on the topic. However, very few countries have successfully restored a TFR above replacement. Countries may need to offer even more intense incentives in order to see a reversal of trends.

Overall, it is clear that we are beginning to feel the impacts of this global demographic shift. Although there is still time to project their potential impacts and try to take corrective action if desired, it might be the case that creating substantial change will be a significant challenge and deliberate planning will be needed to navigate this new normal. Whilst an ageing population presents clear challenges, especially during this intense transitioning period, a declining population may also carry benefits such as reduced environmental strain, increased housing, increased healthcare availability and reduced urban congestion, to name a few.

## 3.8 Healthcare

### 3.8.1 Introduction

The last current topics paper was published in June 2022 with the main discussion based around the Healthcare market developments at the time which were updates to the Risk Equalisation Scheme in Ireland, and the impact of COVID- 19.

This section will provide an overview of:

- PHI Market Update, and developments since the last current topics paper;
- Recent increases in claims costs, resulting in premium increases;
- Developments in relation to Sláintecare; and
- Recent innovation and advancements in healthcare.

### 3.8.2 PHI Market Update

The PHI market is a domestic non-life insurance market in Ireland with total premium income of €3.2 billion in the year 2023.[21] Ireland currently has a two-tiered healthcare system with both a 'public' system and a 'private' system in operation. According to the HIA's 'Quarterly Report on Health Insurance Report Q2 2024' [22], there were 2.49m people in Ireland with Private Health Insurance as at 30th June 2024 – this is approximately 46.8% of the total population. The number of people with private health insurance is growing, from 2.37m at 31st December 2021. but the rate of growth is slowing over 2023.

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[21] HIA 2023 Market Report https://www.hia.ie/sites/default/files/2024-04/hia-market-report_2023_0.pdf

[22] https://www.hia.ie/publications/market-reports-and-bulletins

There are currently three main providers of inpatient private health insurance in Ireland, with a fourth provider to enter the market in late 2024. VHI Healthcare has a 49% market share, Laya Healthcare's market share is 28%, and Irish Life Health has 20% of the market. These three providers are open to anyone who wants to purchase health insurance. There are also some Restricted Membership Undertakings (RMUs) in operation in the market, which make up the other 3% of the current market share. These provide health insurance for their members only (usually current and retired employees of particular organisations). Aviva Insurance has announced a new joint venture health insurance company, Level Health, which is due to begin selling in late 2024. In order to sell health insurance in Ireland, an organisation must be registered with the Health Insurance Authority (HIA), the statutory regulator of the health insurance market in Ireland. As of 10th July 2024, Aviva Insurance Ireland DAC are included on the list of registered Open Membership Undertakings on the HIA's website.[23]

### 3.8.3 Rising Premiums and Claims Costs

***Prices***

High inflation and rising claims costs have meant that private medical insurers have put through multiple price increases since the last current topics paper. The average adult health insurance premium is currently €1,647[12]. The HIA 2023 market report quoted an average adult premium increase of 10% for under 65s and 11% for over 65s over 2023[11]. Increases have continued into 2024 and as at end June 2024, the average price change in the year to date was approximately 7%. Since then, there have been further price increases from all three Private Health Insurance providers.

The HIA conducts a consumer survey every second year and the results of the 2023 survey were published in late 2023[24]. The results showed that price considerations are the greatest barrier to consumer entry into the health insurance market. 45% of those who have never had health insurance quoted the price or "health insurance being too expensive" as the reason. When those who currently have health insurance were asked what factors would encourage them to give up their health insurance, 40% said price/affordability. For those who previously had health insurance and no longer do, 38% cited affordability reasons. When the same group were asked what would drive them to take out health insurance again, half of the responses were related to insurance price/having more money to pay the premiums. It is clear that price is a significant factor in health insurance considerations.

**Ageing Population**

The Old Age Dependency ratio is a statistic that compares the ratio of those over 65 to those aged 15 – 64. It is calculated by the Central Statistics Office, and usually expressed as a percentage, i.e. for every one person of working age, there are x% aged over 65. This ratio is currently about 25%. The Department of Finance has stated that by 2050, the percentage will have increased to approximately 50%. This means that if there are approximately four people of working age now to each one aged over 65, by 2050 there will only be two people of working age to each person over 65 years old. This will affect public finances but will also affect the health insurance market. Due to the community rating market structure (whereby all adults pay the same premium for a given health insurance plan) the premiums of younger, healthier insured members effectively subsidise the claims costs of members

[23] https://www.hia.ie/regulations/register-of-health-benefits-undertakings
[24] HIA Consumer Survey 2023 https://www.hia.ie/sites/default/files/2024-01/hia-consumer-survey-2023-final_0.pdf

who are older, or less healthy. As would be expected, the older cohort of members have larger and more frequent health claims than the younger cohort who tend to be in better health. With the population trend currently moving this direction - a projected doubling of over 65s vs those of working age by 2050 – all else being equal, premiums will need to increase to deal with the associated increase in healthcare costs.

The ageing of the population will also mean that there will be even more demand for healthcare services. Both the public and private system are expanding to increase supply, but it is currently unclear whether the rate of expansion will keep up with the rising demand. The National Children's Hospital is due to open in 2026 and will have 93 day beds and 380 inpatient rooms. Below are some more examples of how each of the sectors are planning to expand their physical capacity, in order to increase supply of services.

Public (Under Sláintecare):

- Six Surgical Hubs are being developed. Two hubs in Dublin are due to begin treating patients in late 2024. The other four hubs in Cork, Galway, Limerick & Waterford are due to be operational in 2025.
- New standalone Elective Hospitals are committed to being established. The locations are in Cork, Galway & Dublin. The Cork and Galway are at a 'request for tender' phase. Two sites in Dublin have been identified as the locations for Dublin (Connolly Hospital & former site of Children's Hospital, Crumlin).
- The Acute Hospital Inpatient Bed Capacity Expansion Plan aims to increase the number of new acute inpatient beds by 3,438 over 2024 to 2031.

Private:

- A new 150 bed hospital in Limerick is due to open in 2025, under the Bon Secours Hospital network.
- In April 2024, Bon Secours Hospital Galway revealed plans for a €36.5 million expansion of their current site.
- Beacon Hospital have acquired permission to build an eight-storey hospital extension.
- UPMC Kildare Hospital have been granted a planning application to build a two-storey extension.
- Mater Private Network invests €3 million to increase capacity in Dublin radiology services.
- Blackrock Health Group announced an investment of €500 million for expansion across the hospitals in their group.

**Claims Costs & Trends**

In their 2023 market report, the HIA quoted a 15% increase in claims since 2022. Total claims paid by health insurers of €2.85 billion for 2023 are the highest recorded for any year to date[11].

The three main insurers have all quoted rising claims costs, both in volume and size, as the reason for the price increases. Laya Healthcare specifically mentioned high cost drugs and increases in cardiology and cancer claims as the drivers of the most recent price increase. The three insurers quoted between 11% and 14% for the increase in private hospital claims in 2024, when compared to 2023. (Some quoted the increase over a six-month period and some over a year, but the messaging is consistent.)

As of July 2023, all three insurers now cover high-cost cancer drugs once they are clinically approved by the European Medicines Agency (EMA). Previously it was the policy of two of the three private health insurers to cover only drugs that had been approved by the HSE for use in the public system. The EMA approves drugs at a faster rate than the HSE, for example they approved ten drugs over Q2 2023[25] and HSE approved six over the same period. To give an example of one of these oncology drugs and its cost, Pembrolizumab is a drug that has been approved by both the EMA and the HSE. The price of one 200mg vial of Pembrolizumab to the wholesaler is €3,154. The total drug cost per patient treated with Pembrolizumab (assuming maximum duration of 17 cycles of 200mg) would be €53,616[26].

The HIA has said that there is a growing trend in day admissions claims rather than overnight admissions[11]. Day case procedures are where the patient arrives to the hospital for the procedure, it is performed, and they can return home the same day. There is no need for an overnight bed. The government has published a report: '10 Practical Areas for Behavioural Science to Improve Productivity in Health' [27]. One of the items recommended was to change the default for certain procedures to be performed as day cases rather than overnight.

Advances in medical technologies in the past few decades have increased the number of surgical procedures that can be carried out on a same day basis. The OECD has provided an example of tonsillectomies as a procedure that mainly can be performed as day case. Currently around 1 in 10 tonsillectomies are performed as day case procedures in Ireland, but this can be as high as eight in ten in other countries. These are high volume surgeries and if there is no need for an overnight bed, consultants can perform more surgeries over the same time period. It is not clear how many procedure types could potentially be performed as day cases by default in Ireland, but in the UK context, a study referenced in the government report, suggested 32 conditions for which day case would be appropriate.

It has not been confirmed if hospitals have taken the report on board. The movement to day case is increasing the volume of claims, and is a driver in increased claims costs. It is unclear how much of the increased claims are due to improved efficiency in other areas.

#### 3.8.4 Sláintecare Update

The aim of Sláintecare is to replace Ireland's 'two-tier' public system – where some private treatment takes place in the public hospital setting - and have one universal health service for everyone. Currently the two-tier system consists of a 'public' system and a 'private' system in operation. Sláintecare was introduced in the Current Topics paper of 2020, with a progress update given in the June 2022 paper. There were 120 deliverables in the Sláintecare Action Plan 2022[28]. The 2022 progress report showed that 35% of them are completed, 29% are on track, 19% are minor delays, and 16% have significant delays (with 3% of those being due to external dependencies).

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[25] https://www.aptitudehealth.com/oncology-news/new-treatment-options-oncology-fda-ema-drug-approvals-q2-2023/
[26] NCPE Assessment Technical Summary Pembrolizumab (page 6) https://www.ncpe.ie/wp-content/uploads/2023/12/Pembrolizumab-for-TNBC-HTA-ID-22027-Technical-Summary-FINAL.pdf
[27] Discussion Paper ; 10 Practical Areas for Behavioural Science to Improve Productivity in Health Microsoft Word - 10 Practical Areas for BeSci to Improve Productivity in Health 20240708 (www.gov.ie)
[28] Sláintecare Progress Report 2022 https://www.gov.ie/pdf/?file=https://assets.gov.ie/251348/50049595-9b2d-48d2-95ee-b00b53c7f47e.pdf#page=null

The most recent action plan (2023) has prioritised two reform programmes for focused implementation:

- Reform Programme 1 - Improving Safe, Timely Access to Care, and Promoting Health & Wellbeing'. This focuses on the integration of care, reducing waiting times (seven projects).
- Reform Programme 2 – Addressing Health Inequalities – towards Universal Healthcare (four projects).

One of the main approaches for improving timely access to care is the removal of private care from public hospitals. The aim is to ensure that public patients can access public hospitals based on clinical need. The main approach for this was the introduction of a Public-Only Consultant Contract which is discussed further below.

**Public-Only Consultant Contract**

The Public-Only Consultant Contract (POCC) was introduced from March 2023[29]. This is project 7 under Reform programme 1 of the Sláintecare Action Plan. Prior to the introduction of this contract, there were multiple types of Consultants Contracts in Ireland (Type A, B, B*,Cat 1/2). All except for Type A are allowed to carry out private work in a public hospital. The majority of consultants are Type B which means they cannot do any private work offsite, but can provide private care within a public hospital.

Consultants who sign the Public-Only Consultant Contract are not permitted to engage in private practice during their public service working hours, or in public hospitals. They are able to carry out private work in private hospitals, provided it is outside of their normal working hours schedule. The aim of this is to improve access to public care, as there will be no private work in public hospitals and consultants on the new contract will have a 37-hour working week dedicated to public care only. The rostered hours under the new contract will include Saturday work, the aim of which is to increase consultant presence in the hospitals at weekends. By September 2024, 2,557 consultants had signed up to the new contract. 1,958 of these switched from their existing contract, and 599 were new entrants.[30]

The new contract makes provision for a transition period whereby consultants can continue to engage in private work in public hospitals for a short period of time after signing up to the new contract (where they had the ability to do this under their old contract type). The transition period is six months, however consultants were also offered the incentive of a longer transition period extended to the end of 2025 if they took up the new contract before year end 2023.

The 2020 Current Topics paper noted the practical considerations in relation to removing private care from public hospitals, one of which is the time frame. Now that the incentive for extended transition period for private work has passed, it is unclear at what speed more consultants will sign the new contracts. There are also specified retirement ages depending on when the consultant started employment. Those who joined the public service before 1st April 2004, or after 1st January 2013 have a compulsory retirement age of 70. For consultants who choose not to take the public only contract, there may be some form of two-tiered system for years to come. If this is the case, additional actions may be required in order to fully remove private care from public hospitals.

[29] https://www.hse.ie/eng/staff/resources/hr-circulars/updated-frequently-asked-questions-faqs-.pdf
[30] https://www.medicalindependent.ie/in-the-news/consultant-contract-leading-to-greater-flexibility-hse/

If every public consultant signed the POCC, that would mean they would all be eligible to carry out private work in private hospitals, compared to the smaller cohort that were eligible before POCC, (as majority would have been Type B and not allowed to conduct private work in a private hospital). It is possible that the demand for private consultant rooms may increase, if more consultants look to engage in private work outside of their public sector hours. There could be a shift from public claims to private claims for insurers. (Public systems claims reducing if capacity in public hospitals is for public work only.) In the 2023 HIA market report[11], it stated that public hospital claims have reduced from 17% of total claims in 2022 to 15% in 2023. But it is not clear if this is a once off or if it is related to the POCC.

Another future consideration as a result of the POCC is the impact on demand for different types of health insurance coverage/plans. Currently health insurance plans in Ireland are split into advanced and non-advanced, with non-advanced plans providing a basic level of inpatient cover (private accommodation in a public hospital). Advanced plans can have varying levels of cover, but the minimum is a semi-private room in a private hospital. The HIA Q2 2024 market bulletin quoted 7% as the percentage of consumers who currently have non-advanced plans. If all consultants signed the POCC, then there would be less need for the type of cover provided by non-advanced plans, due to consultants not being allowed to treat patients privately in the public hospital. It is unclear if consumers who currently opt for this type of cover would purchase alternative insurance cover or choose to go without.

**Waiting List Action Plan**

Waiting lists for acute hospital scheduled care had increased by nearly 60% from end of 2015 to end of 2021 (which includes worsening during the COVID-19 pandemic, and delays during the 2021 cyber attack on the HSE). The government has introduced a multi-year Waiting List Action Plan (WLAP) in order to tackle these long wait lists. This action plan is project 5 under Reform Programme 1. Over 2022, the net reduction in waiting lists was approximately 4.1%, which was the first annual reduction in total waiting lists since 2015[31]. There was further investment in 2023 and again in 2024 to reduce waiting lists further. Results from the end of year 2023 report, however, show that although decreasing, the total waiting list is behind target. This was due to additions to waiting lists being higher than expected (127k, or 8%). The removals from waiting lists over the year were higher than the target by 4.6% (76,696 patients) but additions outweighed the higher than expected removals. Nonetheless there is an improvement in the number of removals, with 177,016 extra patients removed in 2023 when compared to 2022.[32]

For 2024, a budget of €437 million has been allocated to support a continued reduction in waiting times. The 2024 aim is a 5.9% reduction in overall waiting lists, down to 632,000 total[33].This has allowed for trend analysis of increased additions to the waiting list above what was projected previously. The analysis recognises the increasing demand due to drivers such as changing demographics and increase in chronic disease.

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[31] WLAP 2023 www.gov.ie/pdf/?file=https://assets.gov.ie/249526/8b203212-06b9-4ddc-96f7-9938b0707e19.pdf#page=null

[32] WLAP 2023 End of Year Report https://www.hse.ie/eng/about/who/acute-hospitals-division/waiting-list-action-plans/2023-waiting-list-action-plan-end-of-year-report.pdf

[33] WLAP 2024 www.gov.ie/pdf/?file=https://assets.gov.ie/289019/28c3240b-66bb-415b-9d5a-37b57eae7cd1.pdf#page=null

The final aim under Sláintecare is a maximum wait time of 12 weeks for an inpatient/day case/Gastrointestinal scope procedure, and 10 weeks for an outpatient appointment. Interim maximum wait times were defined in the meantime in the HSE National Service Plan, as follows:

- Outpatient: 90% of patients should be waiting less than 15 months for an outpatient appointment.
- Inpatient/Day Case: 90% of patients should be waiting less than 9 months for an inpatient or day case procedure.
- GI Scopes: 95% of patients should be waiting less than 9 months for a gastrointestinal scope procedure, where an endoscope tube is inserted to visually examine the upper digestive system.

The overall opening position for 2023 was 79.5% (meaning 79.5% of patients were waiting less than the interim maximum wait times above). This has increased to 85.8% as at end 2023[22].

Although the wait times are reducing, the WLAP is still some way off achieving the target wait times. As noted in the Market Update section there is a plan for three new elective hospitals, as well as six new surgical hubs. Once operational, the elective hospital network is projected to provide 977,700 procedures annually (procedures, treatments and diagnostics). The six surgical hubs are each expected to deliver "over 25,000 day cases, minor operations and outpatient consultations annually"[34]. Both developments would significantly reduce the current waiting lists.

In the HIA's 2023 consumer survey, 11% of respondents said that the main reason for having health insurance was due to waiting lists/lack of access to public services, and 13% cited inadequate standard of public services. If the waiting list action plan is implemented as intended and the maximum wait times operational, there may come a time when the perceived need for private health insurance greatly reduces. On the basis of the 2023 results, up to 24% of respondents may decide not to purchase private health insurance, and this could lead to a reduction in the size and demographic mix of the market.

However, it is worth noting that even if the waiting lists are as intended in the public system, there will still be a need for private healthcare. One such example is for high-cost drugs approved by EMA, where the average wait time to availability from application to HSE is two years.

### 3.8.5 Technology/Advancements in Healthcare

Over recent years there have been major advancements in healthcare. Whilst delivering better patient outcomes, they bring a significant cost challenge to health systems. Such advancements can range from cures for specific diseases where previously no treatment options were available, to drug improvements that improve patients' quality of life and improvements that reduce the frequency at which a drug is required.

**Drug Developments**

From a worldwide perspective, drug development globally is increasing exponentially. In 2000, there were 2,119 registered clinical trials worldwide. As of mid-April 2024, there were over 491,000 registered globally. Pharmaceutical companies are spending more and more on Research and

[34] gov.ie - Elective Hospitals (www.gov.ie)

Development. On a global scale, the top 5 pharmaceutical companies are projected to spend over $58 billion U.S. dollars in 2026 on R&D[35].

Some recent examples of advancements are discussed below, along with their possible impacts on private health insurance:

**Ophthalmology**

Age related Macular Degeneration (AMD) is the most common cause of visual loss in over 50s in the developed world[36]. It is a chronic, degenerative condition that causes the gradual loss of sight due to blurring or loss of central vision. More than 100,000 people in Ireland aged over 50 are living with AMD[37]. An effective treatment for wet AMD is the frequent Intravitreal eye injections of anti-VEGF drugs.

Recent advancements now allow injections to be administered less frequently. Eylea HD as an example of one such advancement, it quadruples the dose of the traditional treatment which means injection intervals can be three to four months vs the standard-dose interval of four weeks. This improves the quality of life for patients who would otherwise need to attend appointments monthly for the same result[38].

These advancements therefore improve efficiency, and may increase patient throughput and hence further increase volumes of claims for insurers. This may also be compounded in the future by an ageing population, which could result in increased demand for this type of treatment, due to the age profile that is typically affected by AMD.

A further advancement in the treatment of wet AMD is the development of a Port Delivery System (PDS). Rather than requiring frequent injections, this device would be filled with the drug and inserted into the wall of the eye. It can then dispense the drug over time into the eyeball. This aims to keep the clinical benefits of the anti-VEGF injections discussed above, but with the requirement to attend for regular injections replaced with the requirement to attend to have the PDS refilled. Clinical trials for this are still ongoing and it has not yet been approved for widespread implementation.[39]

The Valeda Light Delivery System (LDS) is the world's first approved treatment for Dry AMD. It uses cold laser therapy to stimulate energy production in the eye cells, and slow down the degenerative process. Clinical trials are still ongoing, with the largest one aiming to have 500 to 1000 patients taking part (EUROLIGHT).[40]

**Gene Therapy**

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[35] Total number registered clinical studies worldwide 2000-2024 | Statista
Pharmaceutical R&D spending by top companies forecast 2026 | Statista

[36] Prevalence of age-related macular degeneration in the Republic of Ireland | British Journal of Ophthalmology (bmj.com)

[37] Age-Related Macular Degeneration - Hospital Professional News

[38] New Treatments for Age-Related Macular Degeneration - American Academy of Ophthalmology (aao.org)

[39] Clinical Trials and Future Outlooks of the Port Delivery System with Ranibizumab: A Narrative Review - PMC (nih.gov)

[40] https://www.clinicaltrialsarena.com/news/lumithera-launches-european-registry-study-into-amd-light-therapy/

Gene therapy has been a significant milestone in healthcare. Gene therapy is defined as the introduction of normal genes into cells in place of missing or defective ones, to correct genetic disorders.

Metachromatic leukodystrophy (MLD) is a rare genetic condition that leads to damage of the white matter of the central nervous system and peripheral nerves. It is a rare condition with a birth rate of approximately one life per year in Ireland[41]. 50% to 60% of cases worldwide occur between 12 and 20 months old. In this early onset form, it causes death within 5-6 years[42].

In January 2024, the HSE approved reimbursement for a gene therapy drug of trade name Libmeldy™ (drug name atidarsagene autotemcel). This corrects the underlying genetic fault that causes MLD. Cells are extracts from the blood or bone marrow; a gene is inserted into the cells which will allow them to make the non-faulty gene. The cells are then given back into the patient's vein, where they are transported in the bloodstream, and are able to make the functioning genes. This is an example of a huge healthcare advancement – it is the first drug of its kind to treat MLD. It is a one-time dosage drug that can result in a permanent solution.

Another example where gene therapy has advanced is for Spinal Muscular Atrophy (SMA). This is a genetic disease that affects the spinal cord and nerves, resulting in the loss of motor neurons and muscle wasting. A one-time drug called Zolgensma™ (onasemnogene abeparvovec) has been developed which supplies a healthy copy of the faulty gene, allowing the nerve cells to produce the required protein.

In both cases, the timing of the drug is critical. Screening before the symptoms present gives the best chance of efficacy.

In late 2023, the government approved the recommendation by the National Screening Advisory committee for the SMA test to be added to the National Newborn Bloodspot Screening programme[43], more commonly known as the 'heel prick test'. Due to infrastructural constraints, implementation of screening by the National Newborn Bloodspot Screening Laboratory is unlikely to be feasible until the new children's hospital on the St James' hospital campus is operational.

As discussed in earlier sections, the rising cost of claims including the cost of drugs, is affecting the health care industry. Libmeldy™ drug is one of the most expensive drugs in the world (at approximately €2.5 million per dose). Zolgensma™ is also very expensive. In 2019, it was considered to be the most expensive (at $2.1million USD).

### 3.8.6 Conclusion

Since the last current topics paper, the Health Insurance market has had to deal with significant increased claim costs, due to a range of factors; drug advancements, technological improvements and hospital efficiencies. Both private and public hospital capacity is expanding and Sláintecare is an ambitious plan for the public system, which will in turn affect the private system.

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[41] Page 5 Libmeldy-Beneluxa-RG-Joint-Report-Summary-Ireland-Final.pdf (ncpe.ie)

[42] Metachromatic Leukodystrophy - StatPearls - NCBI Bookshelf (nih.gov)

[43] gov.ie - Minister for Health adds new condition to the National Newborn Bloodspot Screening Programme (www.gov.ie)

# 4. Pensions and Investments

## 4.1 Defined Contribution Update

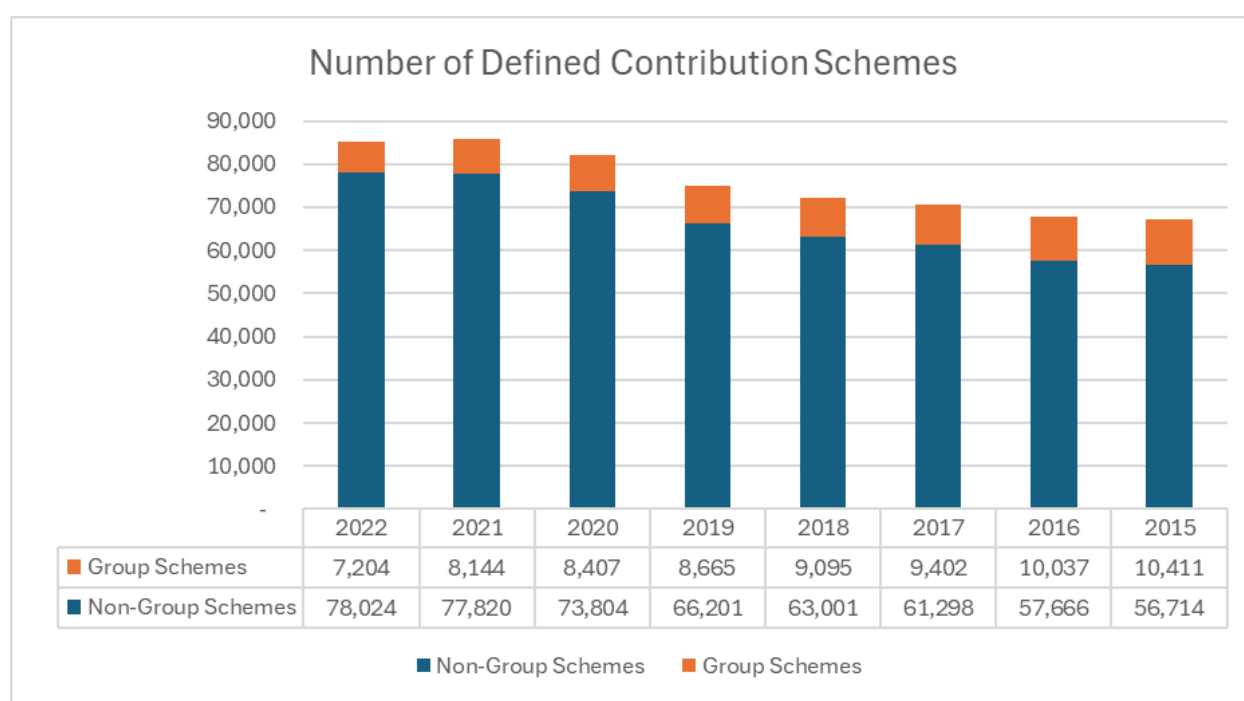
**Market Statistics**

At the end of 2023, Irish occupational pension funds had a total membership of 1.65 million, marking a 6% increase from the previous year. Active members made up 47% of the total, with 80% of these active members participating in a defined contribution scheme. Deferred members also represented 47% of the total membership, while retired members accounted for 6%.

In 2023, the total assets of occupational pension schemes amounted to approximately €121 billion. This total comprises defined benefit (DB) schemes, which accounted for approximately €65 billion, and defined contribution (DC) schemes, totalling approximately €56 billion. Additionally, the total assets held in Personal Retirement Savings Accounts (PRSAs) reached approximately €12 billion[44].

At the end of Q2 2024, the total assets held by Irish pension funds were valued at €138 billion[45]. The share of DC pension fund assets exceeding €1 billion has seen a substantial increase, rising from 11% in Q2 2022 to 45% in Q2 2024. This growth is primarily due to many standalone schemes consolidating into Master Trusts.

**Defined contribution schemes with active members[46]**

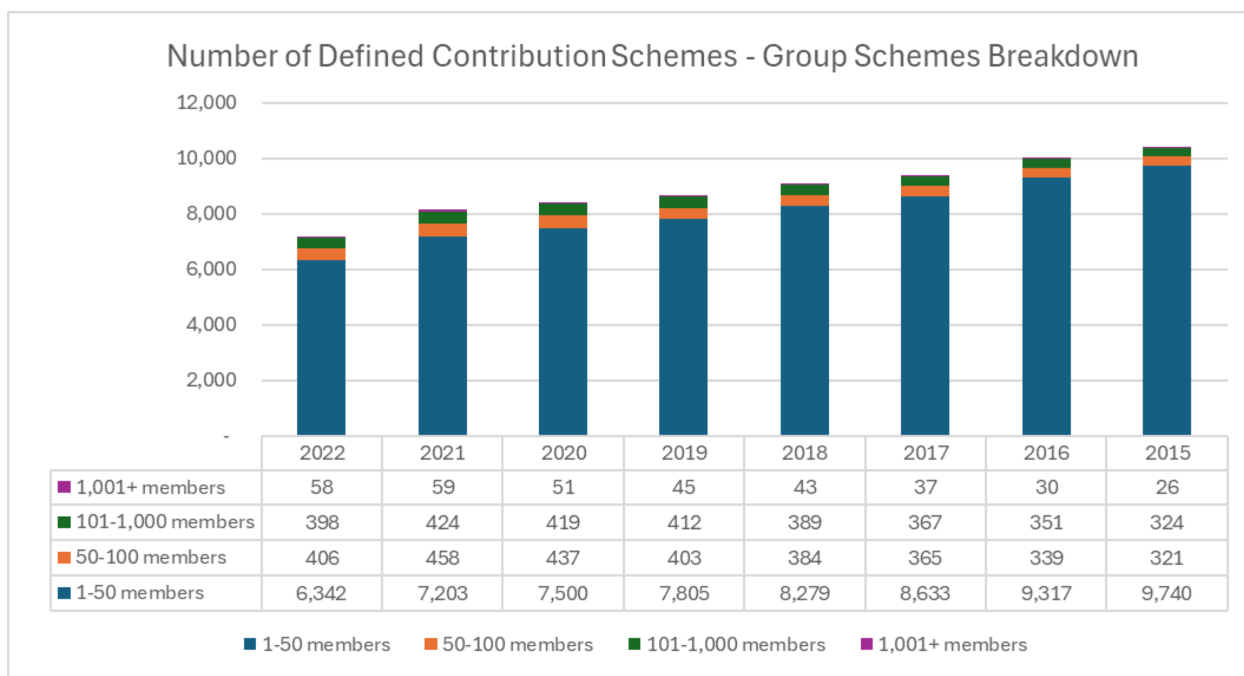



| | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Group Schemes | 7,204 | 8,144 | 8,407 | 8,665 | 9,095 | 9,402 | 10,037 | 10,411 |
| Non-Group Schemes | 78,024 | 77,820 | 73,804 | 66,201 | 63,001 | 61,298 | 57,666 | 56,714 |

[44] Pensions Authority November 2024

[45] https://www.centralbank.ie/statistics/data-and-analysis/pension-fund-statistics

[46] https://pensionsauthority.ie/about_us/annual_reports/archive/




| | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|
| 1,001+ members | 58 | 59 | 51 | 45 | 43 | 37 | 30 | 26 |
| 101-1,000 members | 398 | 424 | 419 | 412 | 389 | 367 | 351 | 324 |
| 50-100 members | 406 | 458 | 437 | 403 | 384 | 365 | 339 | 321 |
| 1-50 members | 6,342 | 7,203 | 7,500 | 7,805 | 8,279 | 8,633 | 9,317 | 9,740 |

**Pension Coverage 2023**[47]

In 2023, 67% of female workers and 68% of male workers had some form of pension coverage outside of the State Pension. Among employed individuals with pensions, 70% had occupational pension coverage only (from current or previous employments), 10% had personal pension coverage only, and 20% had both occupational and personal pension coverage.

For employees with occupational pensions from their current employment, 66% had defined contribution pensions, 30% had defined benefit pensions, and 4% had hybrid pensions. Notably, 83% of professionals had pension coverage, compared to only 48% of skilled trade workers.

Among workers without a pension, 59% expected to rely on the State Pension upon retirement. For those without occupational pension coverage from their current employment, half reported that their employer did not offer a pension scheme. Additionally, 43% of employees without supplementary pension coverage cited affordability as the main reason, while another 43% indicated they had not yet organised it or planned to do so in the future.

**Master Trusts**

A Master Trust is a multi-employer, defined contribution pension scheme established under trust. It has a trustee board responsible for governance, independent of any participating employers. It operates as a collective investment vehicle, pooling contributions from multiple employers. Individual employers decide what benefits the pension scheme should provide for their employees as they would for their own pension scheme. These schemes are a key mechanism for pension provision in numerous markets including the UK, New Zealand, Chile and Australia and they are now becoming increasingly popular in Ireland.

[47] https://www.cso.ie/en/releasesandpublications/ep/p-pens/pensioncoverage2023/

*Growth*

Over the past two years, there has been substantial growth of Master Trusts in the Irish market. At the end of 2023, there were 17 registered Master Trusts with the Pensions Authority in Ireland[48]. These can be split out into Corporate Master Trusts and Retail Master Trusts - with the main difference between the two being that Retail Master Trusts are typically used as an alternative to one-member occupational pension schemes whereas Corporate Master Trusts are used in place of schemes with more than one member. Six of these trusts were established in late 2022 or early 2023, while the rest were in place before November 2021.

In his speech at the Irish Association of Pension Funds Annual Dinner held in February 2024, Minister for Finance Mr. McGrath confirmed that there were c. 440,000 active and deferred members of Master Trusts in Ireland and that the 17 Master Trusts operating in the Irish market collectively manage c. €22 billion in assets[49]. This represented a significant increase on the figures reported by the Pensions Authority in June 2022 when there were 12 Master Trusts with combined assets under management of €2.6 billion split across 821 participating employers, 48,167 active members and 25,363 deferred members[50].

This growth in Master Trusts aligns with the policy goal of consolidating pension schemes in the Irish market. Regulatory and compliance requirements, particularly stemming from the IORP II Directive (effective since April 2021), have made operating standalone pension schemes more challenging and time consuming and as a result employers are opting for Master Trusts in order to alleviate these burdens.

*Benefits and drawbacks*

Master Trusts play a crucial role in pension management in Ireland today, but like any financial structures, they come with both benefits and drawbacks.

Master Trusts offer benefits in consolidation, compliance, member outcomes, and governance.

- Master Trusts can benefit from economies of scale. By pooling resources, a Master Trust can potentially achieve cost efficiencies and better investment outcomes.
- Master Trusts enable employers to outsource regulatory compliance. This allows employers to focus on value-add aspects like member communications and education support.
- Master Trusts can invest in better governance structures and stronger regulatory oversight thereby safeguarding members interests and creating trust in their proposition.
- Master Trusts should be able to react more quickly to investment volatility, wider market events and to regulatory or taxation changes. This agility leads to potentially better outcomes for members.

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[48] https://pensionsauthority.ie/wp-content/uploads/2023/12/20231218-Engagement-and-audit-findings-report-2023.pdf

[49] https://www.gov.ie/en/speech/67749-minister-mcgrath-speech-to-the-irish-association-of-pension-funds-annual-dinner/

[50] https://pensionsauthority.ie/wp-content/uploads/2022/08/Master-trust-compliance-report.pdf

- Founders are allocating greater resources to their Master Trusts which allows increased investment in innovation and efficiency.
- The scale of Master Trusts bring advantages, for example in terms of investment options that can be offered, and members options such as "in scheme drawdown" (discussed later in this paper).

There are also some drawbacks under a Master Trust model including a loss of control, a lack of customisation, more limited fund choices, a conservative default strategy and cross subsidies arising.

- Under a Master Trust the employer's ability to influence the scheme operations is reduced. The trustee board governs the Master Trust independently meaning that employers have less direct control over areas including investment and member communications.
- Master Trusts are designed to cater to a broad range of employers and employees. This can lead to limited customisation or tailoring for specific employer needs or unique employee demographics.
- Under a Master Trust members may be faced with a limited fund choice (reflecting the preceding points), potentially missing out on the opportunity to earn higher returns from specialised funds available outside of a Master Trust structure.
- The default strategy under the Master Trust, particularly in the growth phase (10 to 15+ years from retirement), may not take sufficient risk potentially impacting long-term outcomes for members.
- Cross subsidies may arise where employers who have been in the Master Trust for a longer period of time end up subsidising costs for new entrants, or larger employers cross-subsidise smaller employers.

*What might the future look like?*

While significant progress has been made to date in the Irish Master Trust market, we are in the early stages of a long term journey and there remains scope for enhancements to the Irish Master Trust proposition - for example, the promotion of pension understanding and knowledge, exploring the preferences, risk tolerances and ultimate satisfaction levels of pension savers and more cost effective and efficient support around the "to and through" retirement process.

It is also anticipated that over the coming years Master Trusts will evolve and begin to establish their own unique identities with evidence of this type of evolution in the Master Trust landscape emerging in other geographies.

Going forward, it is fully expected that Master Trusts will increase in size, reflecting the regulatory challenges for employers of operating a standalone pension arrangement in Ireland, and as the quality of the proposition offered by a Master Trust outpaces what can be offered by individual employers. In light of the experience in other markets such as the UK and Australia it seems inevitable that the future of Master Trusts in Ireland will be for fewer, but larger, Master Trusts. In their report on Master Trusts in Ireland[51], PwC commented that *"based on what has happened elsewhere it is arguable that 5 or 6 funds may be appropriate for the Irish market of the future."* While there has been no

[51] https://www.pwc.ie/services/workforce/insights/ireland-master-trusts.html

consolidation of Master Trusts in the market to date this is something which is to be expected as the market develops further.

Another development which we are likely to see in the Master Trust market is the movement of employers between Master Trusts. This has not occurred widely in the market to date - albeit this reflects that we are less than 4 years on from the implementation of the IORP II Directive in Ireland. It also reflects that there is no specific legislation covering the operation of Master Trusts.

Finally the area of oversight is expected to be a key component influencing the future of Master Trusts in Ireland. It is becoming increasingly common for employers to engage with their Master Trust provider, independently overseeing the operations of their provider through the establishment of "Oversight Committees". This reassures employers and scheme members that everything is working as it should be for their pension scheme within the Master Trust arrangement.

This idea of oversight is reinforced by the Pensions Council's *"Master Trust - A practical guide for Employers and Trustees"*[52] which was published in June 2024, extracts from which are included below:

*"There will be value in having focused local oversight and engagement, particularly where the pension benefits are a key part of that Employer's reward proposition"*

*"Having this oversight ensures that pension engagement, communications, service standards and overall performance are as expected by an Employer who is participating in a Master Trust, and this would increasingly be seen as best practice."*

The evolution of Master Trusts in Ireland will continue to be an interesting journey, and it remains an area to watch closely given their systemic importance in supporting Irish pension savers.

**DC Investment Market Trends**

The defined contribution investment market continues to grow and evolve in Ireland. With the number of defined benefit schemes reducing, the majority of Irish pension savers now fall under a defined contribution structure.

There are number of key themes which have emerged across the defined contribution investment space in recent years:

*Investment style and offering:*

The majority of investments across the DC pensions market are managed using a passive approach. The typical fund range offered by pension providers will cover the full spectrum of investment risk in order to accommodate different member risk attitudes and to grant access to all of the main asset classes including equities, property, bonds and cash.

Offering an excessive number of funds can lead to confusion for pension scheme members. Additionally, monitoring a large fund range becomes challenging for both providers and members. As

[52] https://pensionscouncil.ie/wp-content/uploads/2024/06/Master-Trusts-a-practical-guide-for-Employers-and-Trustees.pdf

a result, the typical investment fund range in the Irish market tends to be relatively concise, usually consisting of approximately 10 to 15 funds (and many Master Trusts will offer a number towards the bottom of this range).

*Default investment strategies:*

Experience across existing DC schemes indicates that most members, typically in the region of up to 90%, opt for the default selection when joining a scheme. As a result, the default strategies form a critical part of the wider DC investment market.

Different providers have varying approaches to constructing and managing their default investment strategy however all defaults aim to cater for a broad range of employees.

At present there are typically 3 main phases which are included under pension providers' default investment strategies:

1. *Growth phase* - The goal during the growth phase is to achieve investment growth and investments are made in asset types where higher returns are expected. While equities usually make up a significant part of the growth investment portfolio, other assets such as illiquid investments, commercial property, and private equity may also be included in the portfolio. This phase is relevant for members who generally are more than 10-15 years from retirement.
2. *Consolidation phase* - The goal shifts from investment growth to capital preservation and risk reduction. The portfolio becomes more balanced, with a gradual reduction in growth assets and an increase in lower risk assets such as bonds and cash. As members move closer to retirement the focus is on safeguarding accumulated wealth. This phase usually occurs between 5-10 years from retirement.
3. *At retirement phase* - This phase determines how savings should be invested based on how the member wishes to draw their benefits. Members will typically have a mix of three options - transferring assets to an Approved Retirement Fund, purchasing an annuity or taking a cash lump sum. The goal is to reallocate the investments held upon reaching retirement so that they align with the members objectives. This phase usually occurs within 1-5 years from retirement.
4. 

Lifestyling is common across all default investment strategies but there is variation in the glidepath selection across pension providers. Some providers will adopt some form of member profiling or benefit analysis to inform the choice of default. Others apply the default on a per-employer basis. An ARF plus cash approach is the most common glidepath choice, albeit in part this approach reflects the lower interest rate environment of a number of years ago when annuities were considered to be "poor value". Target date funds which group members into funds depending on their intended retirement year are also available.

As the default investment strategies are an integral part of DC pension savings, it is important that they are regularly reviewed by pension providers to ensure that they remain fit for purpose and continue to meet members' needs. It is also important that the default fund is clearly communicated

to members, including how lifestyling works and the benefits that are targeted to be drawn down by a pension saver at the point of retirement.

Over recent years we have seen several pension providers make amendments to their default investment strategies - in response to changing financial and economic conditions - to ensure that these strategies continue to deliver positive outcomes for members.

*ESG integration:*

With growing concerns about climate change, social inequality, and corporate governance practices, very many investors worldwide recognise the need for sustainable and responsible investment strategies. As a result significant attention and focus has been given to the areas of ESG and sustainable and responsible investment in recent years including across the pensions investment market space. ESG is now factored into investment management decision making across all of the main pension providers in the Irish market.

ESG integration has also been driven by regulation including the European Union's Sustainable Finance Disclosure Regulation (SFDR) which requires pension providers to disclose their approach to ESG integration and assess the sustainability of their investments. The majority of pension providers in the DC market space in Ireland now offer a choice of Article 6 and Article 8 funds with a small but growing number of providers offering Article 9 funds as part of their investment fund range.

Incorporating ESG criteria pushes pension schemes to identify and mitigate risks related to climate change, regulatory changes, and reputational issues, enhancing long-term stability. In addition the shift towards ESG integration is being accelerated by both employers and pension scheme members who are becoming increasingly conscious of sustainability issues and are requesting that investments made using their pension savings align with their values.

**Individual pensions / investments**

**Standard Fund Threshold review**

The Standard Fund Threshold (SFT) is the limit or ceiling on the total capital value of tax-relieved pension benefits that an individual can draw down in his or her lifetime from all of that individual's pension arrangements. The SFT was introduced in December 2005 and is currently €2 million. At retirement any amount over the SFT is subject to income tax at 40%. This tax is normally deducted from the pension fund.

The then Minister for Finance, Michael McGrath, announced on 14 December 2023 that a targeted review of the SFT was to take place. An independent expert, Dr Donal de Buitleir, with support from the Department of Finance was tasked with the review.

As part of the review submissions were invited from interested parties. The review focused on the following areas:

1. The recommendations of the Commission on Taxation that the SFT be benchmarked at "an appropriate and fair level of estimated retirement income."

2. The relevance of the rationale for the SFT in the context of the current pension landscape and the factors that may impact the SFT's role as a limit on tax-relieved pensions.
3. The impact of any change to the SFT on the overall tax expenditure associated with pension provision and its associated distribution, and the need for equity in treatment across taxpayer groups and between public and private sector workers.
4. The current calibration of the SFT including potential impacts on net pension at retirement and consequential impacts on recruitment and retention in the public and private sector.
5. The rate at which the SFT should be set having regard to economic factors including changes in the Consumer Price Index and wage inflation since 2014, the cost of the tax expenditure and its distribution, and the Department's Guidelines for Tax Expenditure Evaluation.
6. The operation of the SFT regime including the inputs and valuation factors which form part of the methodology and the chargeable excess tax.
7. Options for payment of Chargeable Excess Tax when it arises.
8. Options for simplifying the SFT regime

The consultation period ran from 14 December 2023 to 11 February 2024 and the key themes emerging from published stakeholder submissions included:

1. *Increasing the SFT limit:* many submissions highlighted the need to adjust the SFT limit. Currently set at €2 million, this threshold has remained unchanged since 2014.
2. *Indexing the SFT:* to ensure the SFT remains relevant over time, respondents proposed linking it to specific measures, such as changes in either the Consumer Price Index (CPI), average earnings or the State pension.
3. *Addressing inequities and complexities:* Stakeholders expressed concerns about inequities and complexities in the SFT regime between public and private sector workers, as well as among different pension schemes (defined benefit compared with defined contribution) and across different categories of taxpayers.
4. *Reducing the chargeable excess tax (CET) rate:* The CET rate, now 40%, has also drawn attention. Respondents argue this rate is disproportionately high for those inadvertently breaching the SFT limit due to factors such as revaluation of defined benefit scheme benefits or investment growth.
5. *Flexibility in CET payment options:* A disparity exists between private and public sector employees. While private sector retirees must pay their CET bills in a lump sum at retirement, public sector employees can spread this cost over a 20-year period.

Over the course of summer 2024, the Minister for Finance considered the consultation results, and the following updates were announced in September[53]:

- The Government will implement annual increases of €200,000 to the SFT starting in 2026 and continuing until 2029, ultimately reaching a revised limit of €2.8 million.
- Following this, the €2.8 million limit will be adjusted in accordance with any increases in average weekly earnings in Ireland from Q1 2025 to Q3 2029.

[53] https://www.gov.ie/en/press-release/cef4e-minister-chambers-announces-changes-to-standard-fund-threshold/

- After this period, the SFT will continue to align with wage growth.
- The threshold for the higher tax rate will stay at €500,000 for pension lump sums.

Further to these items, which were introduced into legislation by Finance Act 2024, additional recommendations were proposed in Dr Donal De Buitleir's review, which will be subject to further analysis and consideration, including:

- The 40% CET rate is to be subject to a review no later than 2030 - the independent report flags that a rate of (as low as) 10% could be justified.
- An independent evaluation of the age-related factors used to value defined benefit pensions will be undertaken.
- Limits on personal contributions to be removed; currently there is an age-related limit that applies, and a maximum salary for this purpose of €115,000.

Combined, these recommendations, if implemented, would create additional pension funding capacity over the medium term for individuals who are likely to be impacted by the current SFT limit.

**Changes to PRSAs**

A Personal Retirement Savings Account (PRSA) is a long-term savings account to help people save for their retirement. PRSA products are approved jointly by Revenue and the Pensions Authority. Anyone may contribute to a PRSA but the eligibility for tax relief on contributions was restricted to age-related percentage limits.

Prior to the passing of the Finance Act 2022[54] on 15th December 2022, employer contributions to an employee's PRSA were treated as a taxable Benefit-in-Kind. Contributions made by an employer to an employee's PRSA were also aggregated with employee contributions for the purposes of calculating the maximum tax relieved contribution in accordance with the age-related percentages limits for tax relief.

This treatment was amended in the Finance Act 2022. From 1 January 2023 an employer contribution to a PRSA was no longer treated as a Benefit-in-Kind and was no longer counted towards the employee's age-related contribution limit. There was also no limit on employer contributions to an employee's PRSA but the overall Standard Fund Threshold for an individual of €2m still applied.

Effectively, subject to an employer being happy to make that level of contribution, employer contributions to a PRSA contract were "unlimited".

However further PRSA changes were introduced in October 2024 in the Finance Act[55]. The Finance Act 2024 now imposes a cap on employer PRSA contributions at 100% of employee / director income drawn from the business for the relevant year. This change will take effect from 1 January 2025 and

[54] https://www.oireachtas.ie/en/bills/bill/2022/101/

[55] https://data.oireachtas.ie/ie/oireachtas/bill/2024/84/eng/ver_a/b84a24d.pdf

any contributions paid on or after 1 January 2025 in excess of this amount will be treated as a Benefit-in-Kind.

**Changes to the State Pension**[56]

*Flexibility*

The Social Welfare (Miscellaneous Provisions) Act 2023 came into effect on 1 January 2024. This Act allows individuals who turn 66 on or after 1 January 2024 to draw the State pension between the ages of 66 and 70, with an actuarially increased rate to reflect the later payment commencement date.

Individuals can also make additional PRSI contributions after age 66, subject to a maximum of 40 years, to increase the level of their State pension. This applies to the employee, the employer and the self-employed PRSI liability.

This change applies to all persons who are employees and the self-employed with the exception of the following main categories:

- People who have already been awarded the State Pension (Contributory).
- People who have already reached 66 years of age by 1 January 2024 (born before 1 January 1958).

The terms available for deferral are arguably not sufficiently attractive to encourage deferral, however for individuals who do not have maximum eligibility for the State Pension at age 66, deferral can assist them in achieving this.

*Access to the State Pension for long-term carers*

From 1 January 2024 access to the State Pension (Contributory) improved for long-term carers. Those who have spent more than 20 years providing full-time care for an incapacitated person may be entitled to an enhanced State pension from 2024. Credits will be given for periods greater than 20 years where there is a gap in the level of contributions due to caring.

*Changes to the calculation of the State Pension*

There is currently a "yearly average method" approach to calculating the level of State pension, which is inherently complex. From January 2025, there will be a ten-year phasing-in of a "total contributions approach" (TCA), with a target implementation date of 2034. Between 2025 and 2034, a hybrid of both approaches will be used.

**Progress on the pensions simplification measures**

*Alignment of retirement ages*

[56] https://www.gov.ie/en/publication/90d8b-changes-to-the-state-pension-contributory-what-you-need-to-know/

The Government has approved the drafting of the Employment (Restriction of Certain Mandatory Retirement Ages) Bill 2024[57]. This Bill aims to address retirement age policies and empower employees with more flexibility regarding their retirement decisions.

The Bill introduces a statutory provision that allows, but does not compel, an employee to continue working until they reach the State Pension age — now 66. This provision recognises some people may choose to remain in the workforce beyond their contractual retirement age.

In addition, under the new legislation, employers will be restricted from imposing a compulsory retirement age below the State Pension age without the employee's explicit consent.

This consent-based approach acknowledges many workers may prefer to retire at the age specified in their employment contracts. The Bill also includes provisions for specific exemptions that apply in cases where retirement ages are already defined by law, or when an employer can provide objective justification for a different retirement age.

**The Gender Pensions Gap**

Over the course of 2024, the gender pension gap issue has gained prominence in Ireland. The emphasis on auto-enrolment has heightened awareness and additionally, the increased focus on gender pay gap reporting and new legislation mandating employers to disclose their gender pay gaps is likely to bring even more attention to this issue.

The gender pension gap refers to the disparity in retirement savings between men and women. In its 2019 report entitled "Gender, Pensions and Income in Retirement"[58], the Economic and Social Research Institute (ESRI) identified a gender pension gap in Ireland as follows:

- 55% of men and 28% of women were in receipt of occupational and private pensions; and
- The average total weekly pension income was €280 for women and €433 for men, implying a raw gender pensions income gap of approximately 35%.

There are a number of factors which contribute to a gender pensions gap arising including:

1. Salary differences: Women often earn less than men, leading to disparities in pension contributions.
2. Working patterns: Women are more likely to take time out of the workforce to raise children and care for relatives. This can result in women working a significantly shorter period of time than their male counterparts.
3. Scheme design: Scheme rules for example contribution holidays, definition of salary, etc and how pension systems calculate pension benefits influence the benefits members receive.

[57] https://www.gov.ie/en/press-release/d879d-government-approval-for-the-drafting-of-legislation-to-align-retirement-ages-in-employment-contracts-with-state-pension-age/

[58] https://www.esri.ie/publications/gender-pensions-and-income-in-retirement

These factors can lead to a large difference in the level of income men and women get from pensions, both private and occupational.

In 2021, the Minister for Social Protection wrote to the Pensions Council to ask for its views on steps that could be taken to address the gender pensions gap arising from occupational pension schemes and private pensions. The Pensions Council shared their response with the Minister in March 2022 in which they outlined a series of practical steps which could be taken to reduce the gender pension gap in Ireland[59]. These are summarised below:

*Help more women to save for retirement*

- Roll out the AE Scheme at the earliest opportunity.
- Refine the AE Scheme earnings trigger and how it will change over time.
- Set a maximum waiting period.
- Reduce the vesting period.

*Help women to save more for retirement*

- Apply the State top-up to all AE members
- Extend the period for claiming tax relief on personal contributions.
- Expand the definition of earnings when calculating the maximum personal contribution allowed.
- Standardise the maximum personal pension contribution allowed.
- Move to a joint assessment basis for pension contributions.

*Help women to accumulate more for retirement.*

- Offer a lifestyle strategy within AE that is diversified and not overly conservative.

*Protect women who are married/in a civil partnership.*

- Introduce further disclosure requirements at key events or on an ongoing basis

*Promotion and education*

- Consider a focussed campaign at the launch of the AE Scheme.
- Implement a central online information hub with targeted communications.
- Financial Literacy: Start young, by introducing a personal finance module for transition year students.

Although many of these steps are yet to be implemented, some progress has been made with the upcoming introduction of AE in Ireland, set to start on 30 September 2025. However, the AE earnings limit of €20,000 per year remains, which means many women with lower incomes will be excluded from the AE system. Additionally, the current contribution structure restricts women's ability to make extra contributions to cover any gaps in their retirement savings.

While the journey to bridging the gender pension gap in Ireland is underway, there is still a significant amount of work to be done to ensure that the gender pension gap in Ireland is not just narrowed but eradicated. It will be interesting to see the development in this space over the coming years.

[59] https://pensionscouncil.ie/wp-content/uploads/2023/07/report-on-gender-pension-gap.pdf

**In Scheme Drawdown**

In-scheme drawdown is where an occupational scheme member remains invested in their pension scheme after retirement, rather than transferring their fund into another vehicle such as an ARF. It allows pension scheme members to save and take an income within a single pension plan without the need for a complete divestment of funds at the point of drawdown.

*Advantages and disadvantages*

In-scheme drawdown offers several advantages for pension savers:

- It streamlines the retirement process and reduces the administrative complexities by enabling members to handle their pension savings within their current scheme.
- Investment strategies can be maintained to and through retirement, with no need for any divestment (other than to draw down a tax-free lump sum).
- By eliminating the need to transfer funds at the point of retirement into a "retail" pension product, in-scheme drawdown can result in lower fees for retirees offering better value and retirement outcomes.
- Similar to an ARF structure, retirees would have the flexibility to modify their income withdrawals based on their requirements, offering more control over their pension funds.
- In-scheme drawdown aims to create a more consistent and user-friendly pension system by reducing the number of different pension vehicles and harmonising the rules governing them.

However, there are also a number of issues to be considered:

- In-scheme drawdown provisions may limit retirement product choices to those offered by the current pension provider only, potentially causing members to miss out on better terms from other providers.
- If members wish to leave the scheme, there may be restrictions on transferring their in-scheme drawdown to a new provider / pension product.
- In-scheme drawdown can effectively allow a member to *never* engage with their pension arrangements and spend 70+ years in a single pension arrangement - which would need careful consideration in terms of governance, communication and wider implications.
- Administration of in-scheme drawdown will be more complex for pension providers; operating such an arrangement may not be feasible for the high majority of standalone pension schemes.
- There would potentially be significant implications for financial advisors given the default in such an environment would likely be to draw benefits down in-scheme, thereby removing a significant stream of revenue.

*Irish Market - Progress to date*

The concept of in-scheme drawdown was initially included as part of the Government's "Roadmap for Pensions Reform 2018-2023"[60]. This then resulted in a number of matters being referred to the Interdepartmental Pensions Reform & Taxation Group (IDPRTG) for consideration. The main conclusions from IDPRTG's 2020 report regarding in-scheme drawdown were as follows:

- There is widespread support for the concept of in-scheme drawdown, provided it is subject to certain conditions and is available on an opt-in basis.
- The implementation of in-scheme drawdown could be facilitated by creating trust-based schemes that are solely for drawdown which could be built on the existing Master Trust infrastructure.
- The availability of a trust-based arrangement for drawdown could lead to cost reductions for individual savers. This is because these schemes could harness economies of scale and, potentially, in the context of in-scheme drawdown, remove the necessity for savers to liquidate assets and switch to an ARF upon retirement.
- Legislative amendments should be considered to enable flexible in-scheme drawdown.

Nearly four years later in-scheme drawdown is still yet to be advanced in the Irish market. The significant growth in scale of Master Trusts in Ireland has led to views that Master Trusts in Ireland may be able to offer an in-scheme drawdown product at retirement to their members in the future should they wish. However, before introducing such a product, several factors would need to be taken into account, including:

- *Investment* - Consideration should be given to default investment strategies as the risks associated with drawdown are different from those associated with the accumulation phase. A change would be required in default investment strategies so that they are designed for decumulation and not just the accumulation of funds.
- *Regulation / Trusteeship* - In-scheme drawdown would result in a situation where trustees would continue to be responsible for scheme members into the drawdown phase. This would be a change in the current remit of trustees. This shift in responsibility has significant implications for both trustees and members and would need to be clearly communicated and understood. Trustees would need to be empowered to manage investment decisions and drawdowns at later ages when retirees may not be in a position to make decisions themselves. Other issues arise, such as supporting retirees where funds fall to nil and dealing with vulnerable customers, etc.
- *Legislation* - Understanding the legislative requirements for implementing drawdowns, including any recent or upcoming changes in pension law would be critical.
- *Member advice* - The complexity of drawdowns might necessitate the involvement of a financial advisor. How to facilitate this, the cost of this advice and who bears it, as well as whether obtaining advice should be mandatory, are important considerations.
- *Costs* - Implementing pension scheme drawdowns involves various costs, including advice, administration, regulatory compliance, and system updates. It is important to consider who will bear these costs and how they can be effectively managed and paid for.

[60] https://www.gov.ie/pdf/?file=https://assets.gov.ie/96526/10f51432-ccaf-400e-8db5-e76aef4ce458.pdf#page=null

- *Integration with other benefits* - Consideration if the option should be in conjunction with opting for an individual ARF or annuity product.

While the timeframe for the introduction of in-scheme drawdown is still uncertain, it will remain an area to watch closely given its potential impact on Irish pension savers and the Irish pension landscape.

## 4.2 Defined Benefit ('DB') Pension Schemes

**Market size**

Since the last current topics paper completed in 2022, the number of funded Defined Benefit pension schemes has continued to reduce. As of the Pensions Authority's latest statistics based on 2023 year-end AADR submissions, there are 480 funded DB schemes in Ireland, broken down as follows:

| AADR categorisation | Definition[61] | No. of Schemes |
|---|---|---|
| "Current" Schemes | A scheme in which members are still actively accruing pension benefits and/or benefitting from salary linkage on existing benefits. (Note that these schemes are not necessarily open to new members to join*). | 290 (60%) |
| "Frozen" Schemes | A scheme that no longer offers accrual to its members, i.e. only benefits accrued in the past are being provided for. | 176 (37%) |
| Schemes in wind-up | Schemes in the process of being discontinued. | 14 (3%) |

* While no formal statistics exist, anecdotal evidence among pension professionals suggests that the number of privately funded DB schemes open to new members is low and represents only a small proportion of the schemes designated "current" in the above dataset.

Based on the Pensions Authority's (PA) statistics, there is some evidence to suggest that the pace of Scheme wind-ups has increased in recent years. For example, the PA statistics suggest:

- From 2018 to 2021, the number of privately funded DB schemes reduced by around 2.1% p.a. on average
- This increased to 5% and 6% in 2022 and 2023 respectively

This is likely driven by the increased cost of complying with IORP II regulations for smaller DB pension schemes and to a lesser (and slower) extent by the improved funding levels seen in recent years (which are discussed in further detail later).

The aggregate value of DB scheme pension assets as at 30 June 2024 can be estimated at around **€70.8 bn** based on the Central Bank of Ireland Pension Fund Statistics. [62] Aggregate liabilities depend on the measure used to value the liabilities. The Central Bank's statistics (based on accounting measures) suggest total DB liabilities were valued at **€57.3bn** as at 30 June 2024. By contrast, the Pensions

[61] S.I. No. 203/2012 - Occupational Pension Schemes (Disclosure of Information) (Amendment) (No. 3) Regulations, 2012. Definition based on author's interpretation.

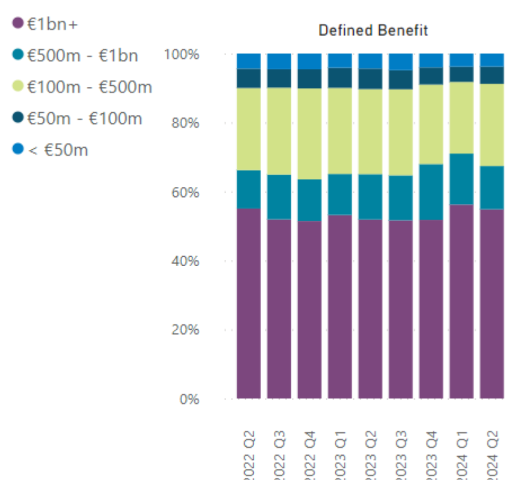
[62] Pension Fund Statistics I Central Bank of Ireland | Central Bank of Ireland – DC assets and liabilities stripped out by author to arrive at DB asset figure.

Authority's AADR stats for 2023 show liabilities valued on the Funding Standard basis of around **€48.0bn**, broken down as follows:

| Member category | Funding Standard Liability Value |
|---|---|
| Pensioner | €29.2bn |
| Deferred members | €9.8bn |
| Active members | €9.0bn |
| Total excluding funding standard reserve | €48.0bn |

The PA statistics indicate that pensioners make up the largest beneficiary of DB schemes. While it is true that DB schemes have matured significantly in recent years, the active and deferred benefits are understated somewhat in the above numbers as the Funding Standard Valuation basis assigns a "transfer value" to actives and deferreds that is typically lower than the open market value of these members' benefits. Additionally, the above numbers do not allow for active members accruing future benefits.

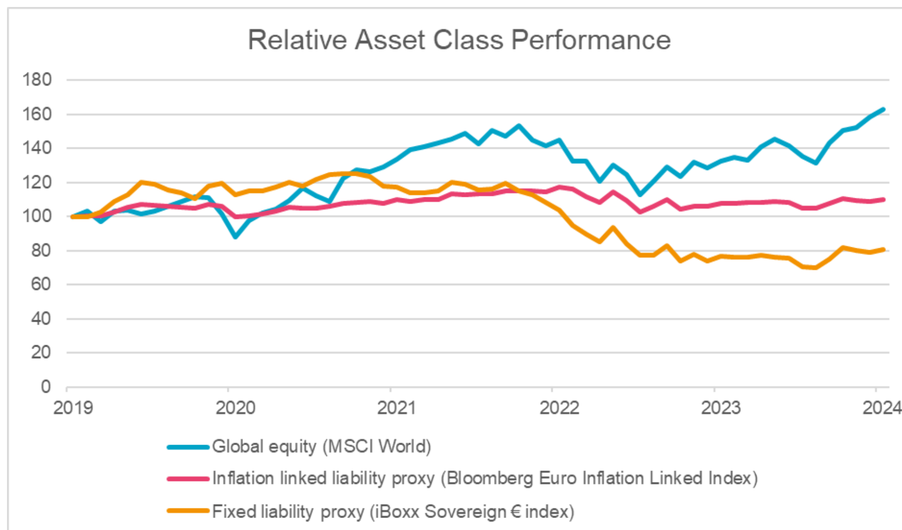
In terms of market composition, the Central Bank of Ireland statistics shows that the majority of DB assets relate to Schemes over €1bn in size (around 55%), with the next largest segment relating to Schemes between €100m and €500m in size (around 25%). Schemes with less than €100m in assets account for around 10% of total DB assets, but a significant proportion of DB scheme numbers. For example, statistics from the Pensions Authority from August 2023[63] show that there were 211 DB schemes with less than €15m in assets.




**Funding levels**

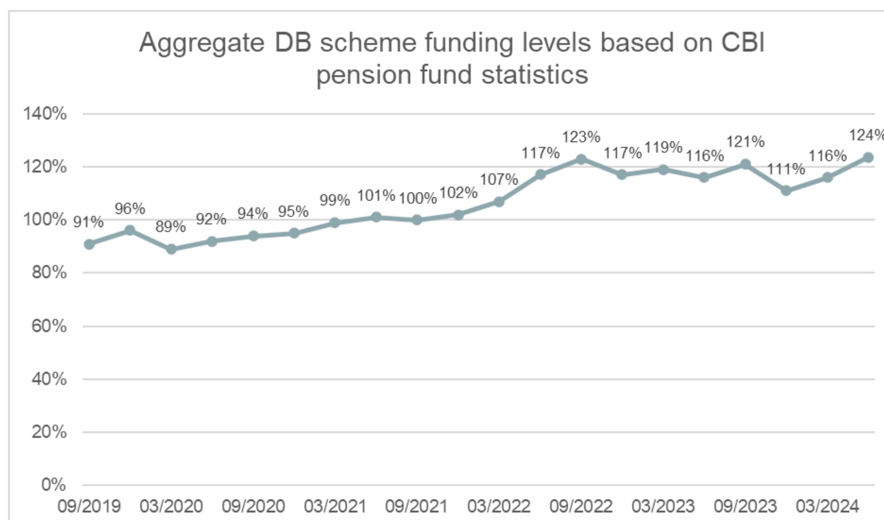
Irish DB schemes have seen significant improvements in funding levels in recent years, notably accelerating after the significant rise in interest rates in 2022, combined with continued strong performance of growth assets such as equities, as demonstrated in the below chart.

[63] https://pensionsauthority.ie/wp-content/uploads/2023/08/presentation_by_grace-guy-at-iipm-seminar.pdf




*Source: Bloomberg*

Analysis of both Central Bank and Pensions Authority statistics show an improvement in aggregated funding levels (albeit on different liability measures). The quarterly Central Bank statistics show aggregate DB funding levels improving from 100% in 2021 to 124% in Q2 2024, as shown below:




Source: Analysis of CBI Pension Fund Statistics

From a longer-term perspective, the Pension Authority's AADR statistics show a similar improvement in funding levels based on the Funding Standard discontinuance basis. While the two sets of statistics are directionally consistent, it should be noted that both liability bases are likely to differ significantly from an individual scheme's long-term "going concern" or "ongoing" funding basis.

## 4.3 DB investment and risk management trends

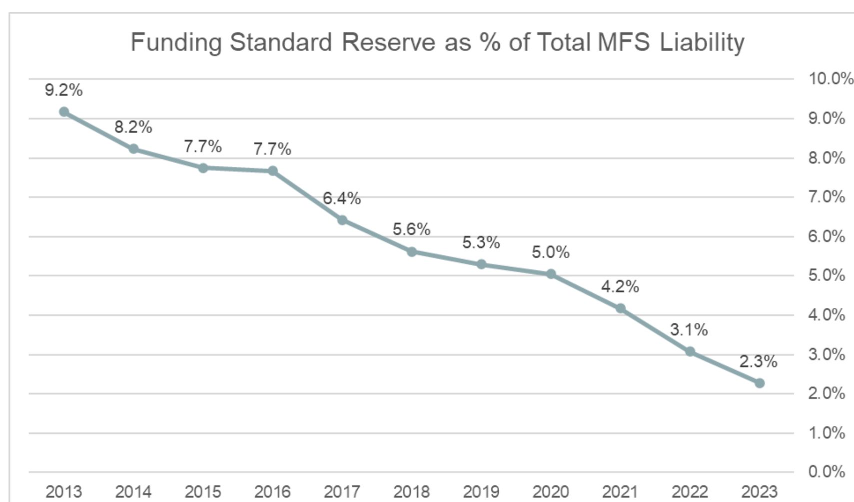
**<u>"De-risking"</u>**

It is common practice for Irish DB schemes to structure their investments between a "growth portfolio" and a "matching portfolio". The goal of the growth portfolio is to provide investment returns above inflation over the long-term through investment in assets such as equity, property, infrastructure and credit. By contrast, the goal of the matching portfolio is to "match" the Scheme's liabilities in a traditional asset-liability modelling sense. Typical investments include government and investment grade corporate bonds, swaps, cash and cash-type assets.

In industry parlance "de-risking" describes the process of DB schemes reducing their growth portfolio allocation and increasing the matching portfolio allocation. This typically sees a reduction in a DB portfolio's expected return combined with a reduction in investment risk and funding level volatility (often measured by Value at Risk model, hedge ratios or stress testing).

In response to improved funding levels, many Irish DB schemes have de-risked significantly. In the absence of comprehensive industry statistics of DB asset allocation, one useful proxy for investment risk is the "Funding Standard Reserve" measure, which requires DB schemes to hold a reserve for interest rate mismatching risks and growth asset risks. In simple terms, the Funding Standard Reserve measure is lower when a scheme holds more matching bonds (and less growth assets) and has higher levels of interest rate hedging.

The PA's AADR statistics show that the Funding Standard Reserve as a proportion of total funding standard liabilities has consistently reduced over the years as schemes have managed and reduced investment risk. In particular, the measure has almost halved between 2021 and 2023.



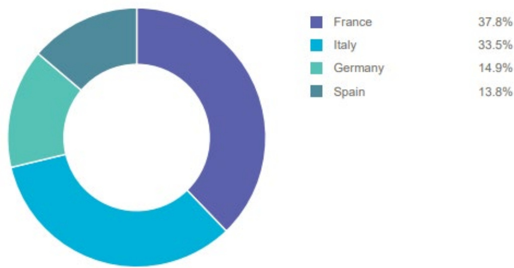

*Source: analysis of PA AADR disclosures*

**Hedging inflation**

Many Irish DB schemes provide inflation linked benefits and therefore have a significant exposure to Irish CPI. When constructing matching portfolios, schemes have typically used European inflation-linked government bonds to match these liabilities, accepting the inherent "basis risk" between the European HICP linked assets and their Irish CPI linked liability.

The market in inflation linked government bonds is relatively small and issuance is sparse at longer maturities. For example, the ICE Euro HICPxT Inflation-Linked Government Index contains just 34 bonds issued by 4 countries, with France and Italy being the largest issuers.

BOND COUNTRY DISTRIBUTION




| | BENCHMARK |
|---|---|
| No of Bonds | 34.00 |
| No of Countries | 4.00 |
| Modified Duration | 7.88 |

*Source: Irish Life Investment Managers*

Given recent volatility in French government bond markets, schemes are actively considering their inflation hedging strategies with a view to managing concentration risks in any one issuer. This is further complicated by Germany's recent announcement that they intend to stop issuing inflation linked debt, removing one further issuer from the market. Inflation swaps and real LDI funds provide an alternative hedging instrument and are increasingly being considered and adopted by Irish schemes.

**Cashflow matching / cashflow aware investing**

With improved funding levels, many schemes are now receiving less deficit funding contributions and have a greater need for day-to-day cashflow to be met from scheme assets.

Many schemes are considering the optimal way to provide this cashflow without needing to be a forced seller of assets in the event of a market downturn (leading to so-called "sequencing risk", i.e. the risk of short-term investment losses greatly reducing the long-term sufficiency of the Scheme's assets).

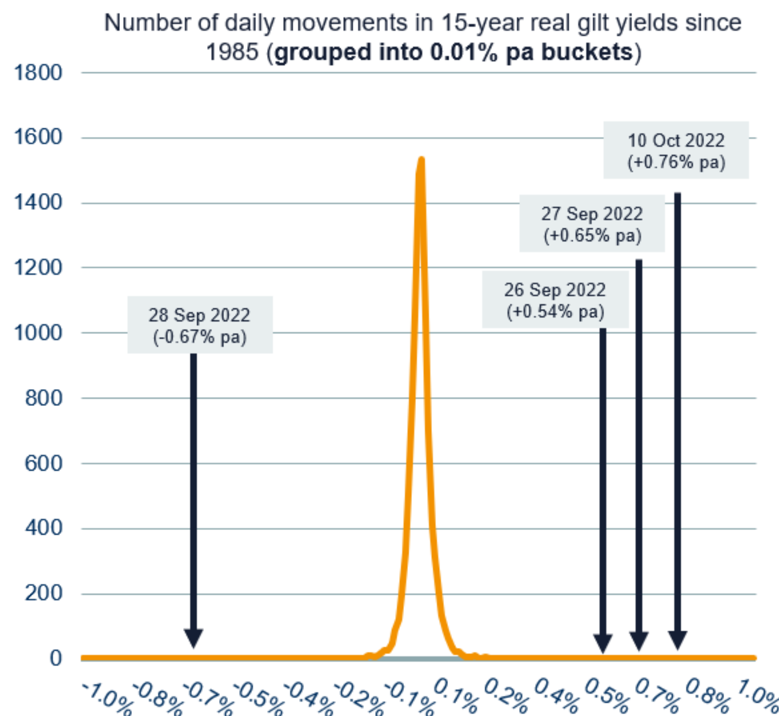
One alternative being actively considered by some schemes is "amortising" fixed income strategies that hold bonds to maturity and structure the anticipated coupon and redemption proceeds to broadly match the estimated liability outgo over the short to medium term. This has the advantage of providing a contractual source of asset cashflows for meeting day to day liquidity needs and can avoid a scheme having to be a forced seller of assets such as equity in the event of a market fall. However, significant attention must be paid to credit risks and an active approach to investment management is typically adopted to manage default risks.

**LDI and liquidity risk management**

In the Irish market, Liability Driven Investment ("LDI") is used colloquially to refer to investment strategies that use derivatives such as interest rate and/or inflation swaps to provide liability hedging for DB schemes.

Given the use of derivatives, LDI strategies require DB schemes to post collateral to maintain exposures as derivatives move out of the money (e.g. when interest rates rise and/or inflation expectations fall). In September and October 2022, the UK "gilts crisis" provided an important case study for Irish DB schemes around the management of collateral and liquidity risk in their LDI strategies.

The gilts crisis saw significant volatility in LDI strategies as Liz Truss' "mini-budget" concerned investors in UK government bonds causing a sharp sell-off and rise in real gilt yields. The below analysis produced by LCP shows the severity of the daily change in gilt yields relative to history.




*Source: LCP analysis*

The extreme movements in yields meant LDI strategies had to request significant amounts of collateral from schemes at short notice in order to maintain their derivative exposures. In meeting collateral requirements, Schemes sold liquid assets such as equities, multi-asset funds etc. leading in many cases to an over-concentration in illiquid assets such as property, private credit etc. There was also considerable challenges and operational burden for Schemes to arrange the transfer of assets to the LDI manager at such short notice.

While it is generally accepted that the Euro LDI market is not as exposed to systemic risks as the UK LDI market due to the relatively diversified investor base in Euro government bonds and swap markets, the crisis has underlined the importance of collateral risk management for Irish and European investors using derivatives for asset-liability management purposes.

Some of the key impacts for the DB industry have been:

- **Lower levels of leverage** – post gilts crisis, Sterling LDI funds have typically operated lower levels of leverage to reduce the impact of volatility on collateral requirements.
- **Improved reporting** – in general, investment manager reporting on collateral requirements and liquidity risk has improved significantly post the crisis. Many useful metrics such as "yield rise to collateral exhaustion", "yield rise to next capital call", "estimated capital call" are now widely reported allowing Schemes to oversee and manage their liquidity risks more easily.
- **Improved governance and operational resilience** – Schemes are increasingly aware of the requirements to post collateral and the steps in the process to do so. There is also an

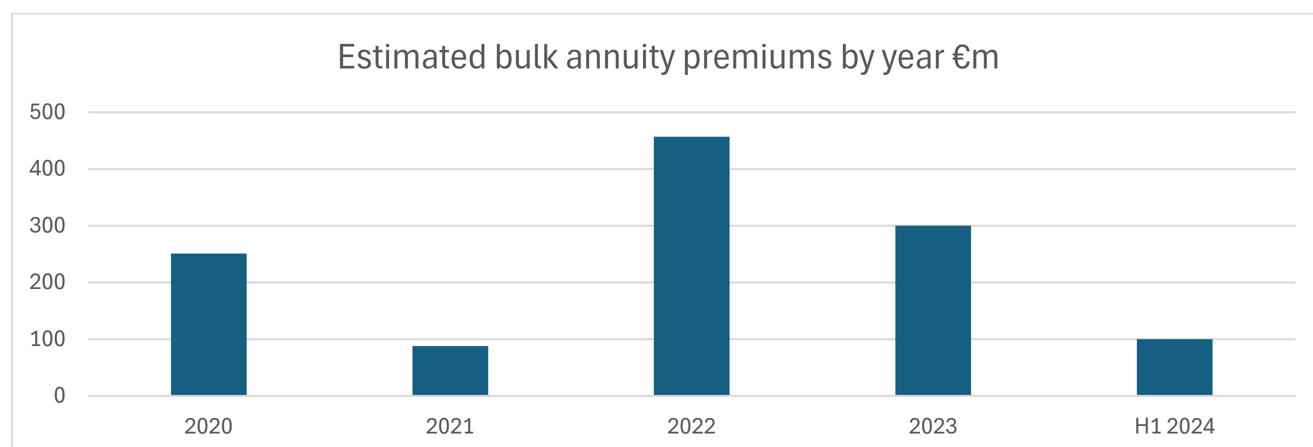
increasing trend of holding more collateral with the LDI manager adjacent to derivative exposures.

- **Increased regulator focus** – both in Ireland and at a central European level, regulators are paying more attention to potential systemic risks from pension schemes' use of LDI.
- **Forced selling of illiquid assets** – as schemes have revised investment strategy post-gilts crisis (often targeting buy-out) and attempted to increase asset liquidity, many have chosen to sell illiquid assets on the secondary market. This has presented opportunities for long-term investors with an appropriate risk appetite to acquire high quality private market assets on the secondary market at attractive valuations.

**Bulk annuity**

A bulk annuity transaction refers to a transaction in which a DB schemes passes the responsibility of paying pensions to an insurer in exchange for an up-front premium. The bulk annuity can be structured as a "buy-in" where the insurance policy is in the name of the Trustees and is retained as an asset of the scheme or a "buy-out" where the insurance policy is in the name of the individual pensioners and the relevant asset and liability is removed from the scheme.

The bulk annuity market in Ireland is relatively small but has grown in prevalence in recent years. Insurers estimate that approximately €1.2 billion of annuity transactions have been completed from 2020 to 30 June 2024 with around 25 deals in excess of €10m, and some notable deals in excess of €100m. The majority of bulk annuities have been conducted on a buy-out basis, but insurers note an increasing trend of buy-in transactions, particularly for larger schemes.




*Source: insurer estimates*

Schemes have historically used a bulk annuity as part of a scheme wind-up but there is an increasing trend among schemes to consider bulk annuities as a strategic funding and investment decision and a practical means of managing longevity risk. This has been supported by the improvement in funding levels allowing schemes to target a lower risk investment objective consistent with annuity pricing.

To date, only immediate annuity products have been available for schemes to use on a large scale. There has been progress with the development of a deferred annuity product, with one insurer targeting a deferred annuity product in 2025 and another actively developing its proposition.

A deferred annuity product will allow schemes to transfer risks relating to their non-pensioner liabilities. Relative to an immediate annuity, a deferred annuity requires a number of extra features with additional complexity for an insurer to replicate. These include:

- Revaluation of deferred benefits – i.e. uplift of pension entitlements to the point of retirement, often in line with inflation
- Early/late retirement – may be based on fixed or market consistent formulae
- Ill-health retirement
- Lump sum commutation – typically based on a fixed formula (9:1 is common)
- Death in service/deferment benefits
- Dependant pensions, including children's pensions
- Options to increase Dependant's pensions at retirement
- Transfers out – which must at least equal the value of a member's benefit on the minimum transfer value basis
- Pension adjustment orders

The above features can vary greatly from scheme to scheme and it is expected that some features will be difficult for insurers to replicate exactly. A pertinent example of this is the "transfer out" which allows members to take a one-off lump sum transfer in respect of their DB entitlement. In a pension scheme, a transfer out must be at least equal to the value of the member's liability on the Minimum Funding Standard basis. This basis is a fixed formula where a member is more than 10 years from retirement and where a member is within 10 years it has some market consistency.

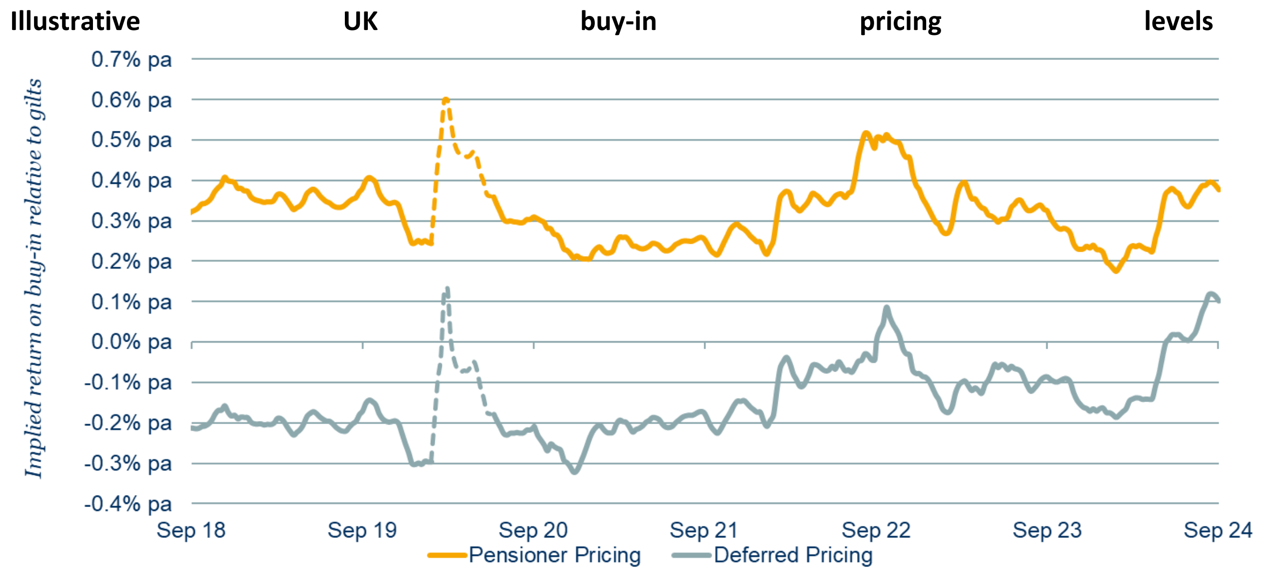
From an insurer's perspective, this presents some challenges:

- From the perspective of pricing, reserving and risk management, the inclusion of the MFS basis is likely to present issues. There is typically a big divergence between the MFS value of a future pension and a "market-consistent" value, making it impractical for insurers to effectively manage risks on both bases.
- The transfer out option presents some selection risk for insurers, i.e. the risk that lives with poorer than average health take a transfer, while healthier lives draw their benefit.
- The MFS is set based on guidance from the Society of Actuaries which is subject to change in future. In theory products priced based on the current MFS basis, may suffer losses if the MFS basis were strengthened in future.

To overcome the above, it is expected that transfers out will be offered on a market-consistent "cost-neutral" basis. On this basis, the calculated transfer value would be expected to exceed the MFS value of the benefit, however, it is unclear if insurers will provide a guaranteed minimum transfer value underpin in the event of the MFS value being higher than the cost-neutral value.

In terms of pricing, it is expected that deferred annuities will be more expensive than immediate pensioner annuities to reflect the additional risks of the contract from the insurer's perspective. These additional risks include the risks presented by optionality (e.g. transfers out) as well as the longer duration of the liability and the associated re-investment risk with assets backing such liabilities.

One way of expressing annuity pricing is the "implied yield" on bulk annuity from a Scheme's perspective. Experience from the UK suggests that pensioner annuities trade at an average of around 0.4% p.a. above gilts, while deferred annuities trade at an average of around -0.1% p.a. below gilts. It would be reasonable to expect a similar trend for the Irish market as it develops.




*Source: LCP UK insurer pricing model, which is calibrated against actual UK transaction pricing. In practice, insurer pricing depends on a wide range of factors such as transaction size, benefit structure, membership profile and insurer appetite and can differ materially from that shown above for any given scheme.*

In aggregate, the introduction of a deferred annuity product will be a significant development for the Irish DB pension sector and will allow schemes to transfer risks relating to their deferred members. In the medium term, it is reasonable to assume that it will accelerate the pace of wind-ups subject to domestic insurer capacity to write business.

# 5. General Insurance

The non-life insurance industry in Ireland has experienced significant developments recently, influenced by a combination of regulatory changes, inflationary pressures, and evolving market dynamics. This section of the report highlights the most recent trends in the private motor, employers' liability (EL), and public liability (PL) sectors, with a focus on premium trends and the impact of claims inflation.

## 5.1 Private Motor Insurance

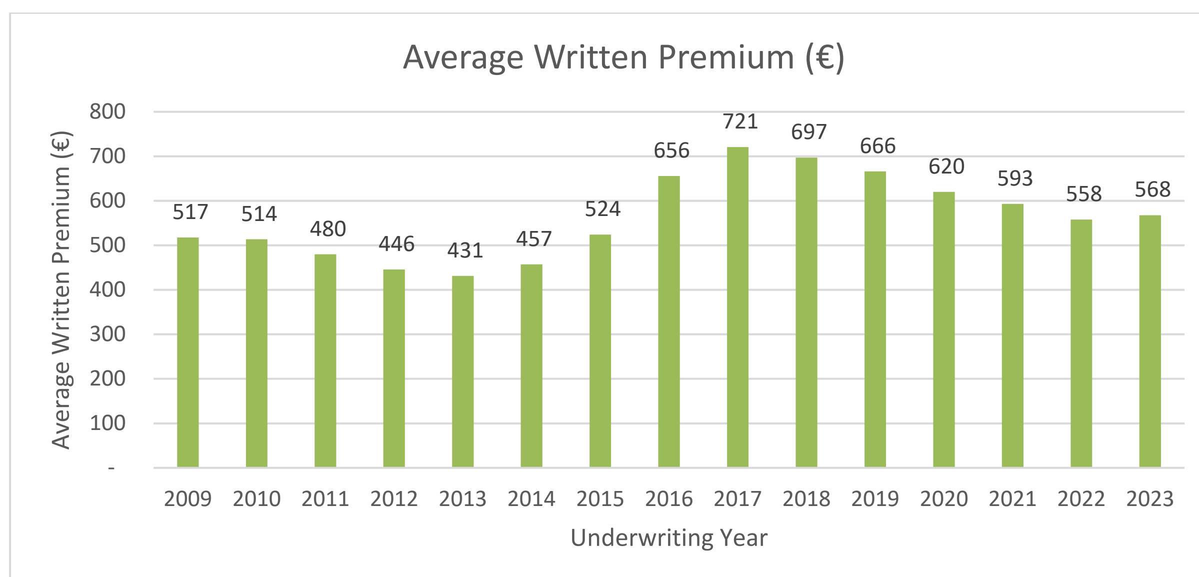
According to the Private Motor Insurance Mid-Year 2023 Data Release from the Central Bank of Ireland, several key trends have emerged in the motor insurance sector.

*Premium Trends & Coverage Type*

As we can see below, premiums in the Irish private motor insurance market have gone through three key phases:

- 2009–2013: A steady decline in premiums, with a cumulative decrease of 17%[64];
- 2014–2017: Year-on-year increases in premiums, rising by 67% since 2013;
- 2018–2022: A return to falling premiums, with a 23% reduction by 2022.

In 2023, premiums rose again by approximately 2%, bringing the average written premium to €568. This upturn marks a reversal of the previous five-year trend of declining premiums.




Over recent years, the Irish market has shown a strong shift toward comprehensive policies over third-party-only options. The share of policies with comprehensive coverage increased from 83% in 2017 to 93% in 2023, demonstrating a preference for broader coverage among policyholders.

*Claims Trends*

The average claims cost per policy rose by 5% in 2023, reaching €369. This brings claims costs back to levels which haven't been seen since 2019, before the pandemic. The increased cost per policy is

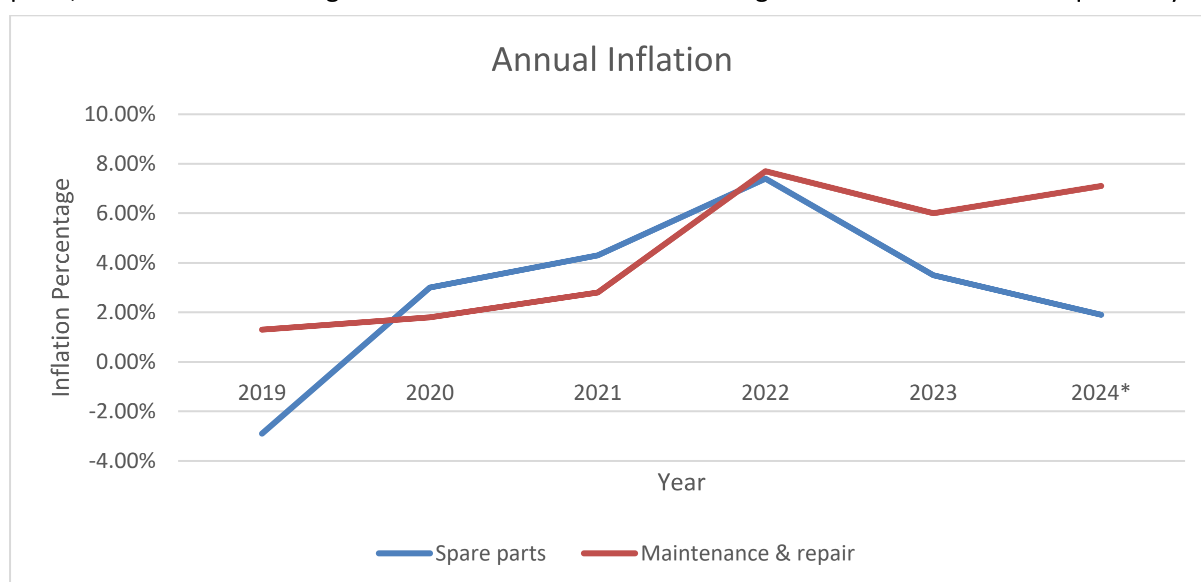
[64] https://www.centralbank.ie/docs/default-source/statistics/data-and-analysis/national-claims-information-database/private-motor-insurance-report-6-ncid.pdf?sfvrsn=1608671a_5

primarily due to the frequency and cost of damage claims, which surged to an average of €178 per policy (€151 in 2022 and €97 in 2021).

Inflation has played a critical role in driving up the cost of claims, particularly for property damage, which has surged due to higher material and labour costs. This trend is reflective of broader inflationary pressures in the economy, including the rising cost of vehicle repairs.

According to CSO data seen below, the costs associated with spare car parts and maintenance & repair have seen significant inflationary pressures. In 2022, inflation for spare parts peaked at 7.4%[65] , however, this has reduced year on year with 2024 inflation currently at 1.9%[66].

Maintenance and repair costs similarly peaked in 2022 with inflation at 7.7%. Unlike inflation on spare parts, this has remained high in 2023 and 2024 with inflation figures at 6.0% and 7.1% respectively.




* September '23 to September '24

Spare parts inflation and maintenance & repair inflation includes the following costs:

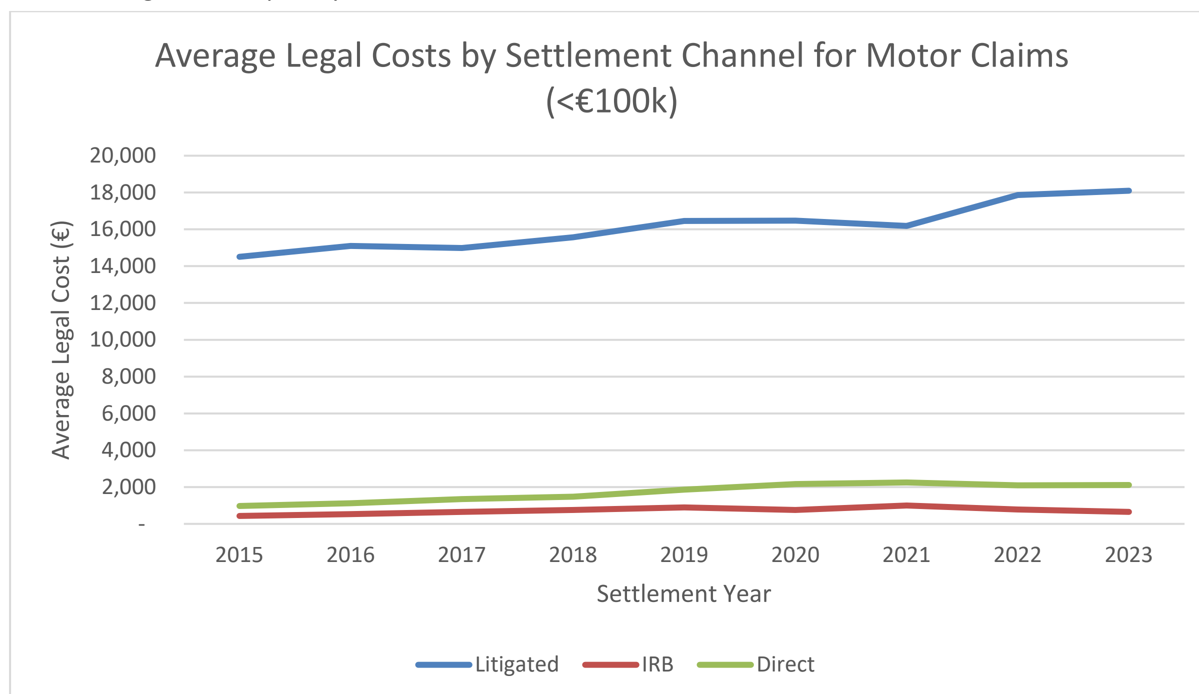
| Spare parts | Maintenance & repair |
|---|---|
| Tyres, inner tubes, spark plugs, batteries, shock absorbers, filters, pumps and paints.<br><br>*It excludes services related to the installation of these parts.* | Fitting of spare parts and accessories (like tyres and batteries), technical inspections, breakdown services and oil changes and greasing. |

The cost of injury claims per policy remains below pre-pandemic levels, averaging €191 in 2023 (€235 in 2019 and €259 in 2018). This is due to a lower frequency of injury claims and a reduction in their average cost, influenced by the Personal Injuries Guidelines introduced in 2021.

[65] https://www.cso.ie/en/releasesandpublicactions/ep/p-cpi/consumerpriceindexdecember2022/
[66] https://www.cso.ie/en/releasesandpublicactions/ep/p-cpi/consumerpriceindexdecember2024/

Legal costs for motor insurance claims are typically higher for injury claims rather than damage claims due to three key reasons:

- The complexity of injury claims
- Pathways to resolution
- Litigation frequency




The average legal cost per claim for claims less than €100k is shown in the graph above and is split by settlement channel. Unsurprisingly, the highest legal fees are incurred for claims settled via litigation. Fees for this settlement channel have increased by 25% per claim since 2015. Claims settled via the Injuries Resolution Board (IRB) incurred legal fees of €998 per claim in 2021, which decreased to €782 in 2022 and €649 in 2023. Direct claims peaked in 2021, with an average legal fee of €2,249 which is just above the 2023 average of €2,109.

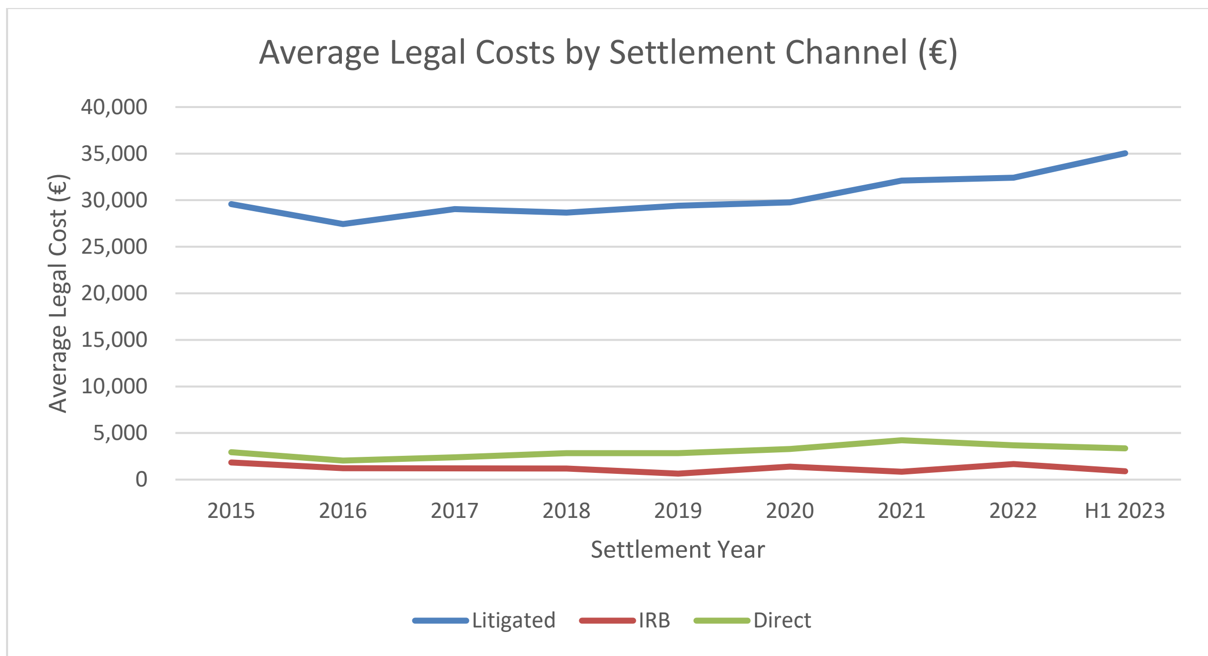
Claims costs as a percentage of premiums rose from 62% in 2022 to 67% in 2023, indicating a higher payout relative to premiums collected. The overall average ratio of claims to premium, or loss ratio, from 2009 to 2023 stands at 65%.

## 5.2 Employers' and Public Liability Insurance

In the Employers' and Public Liability Mid-Year 2023 Report, it was highlighted that the liability insurance market has been affected by both regulatory changes and inflation.

*Litigation Costs* One major concern highlighted was the growing legal costs associated with claims settled through litigation. These costs represent a significant portion of total claims, particularly in injury-related cases[67].

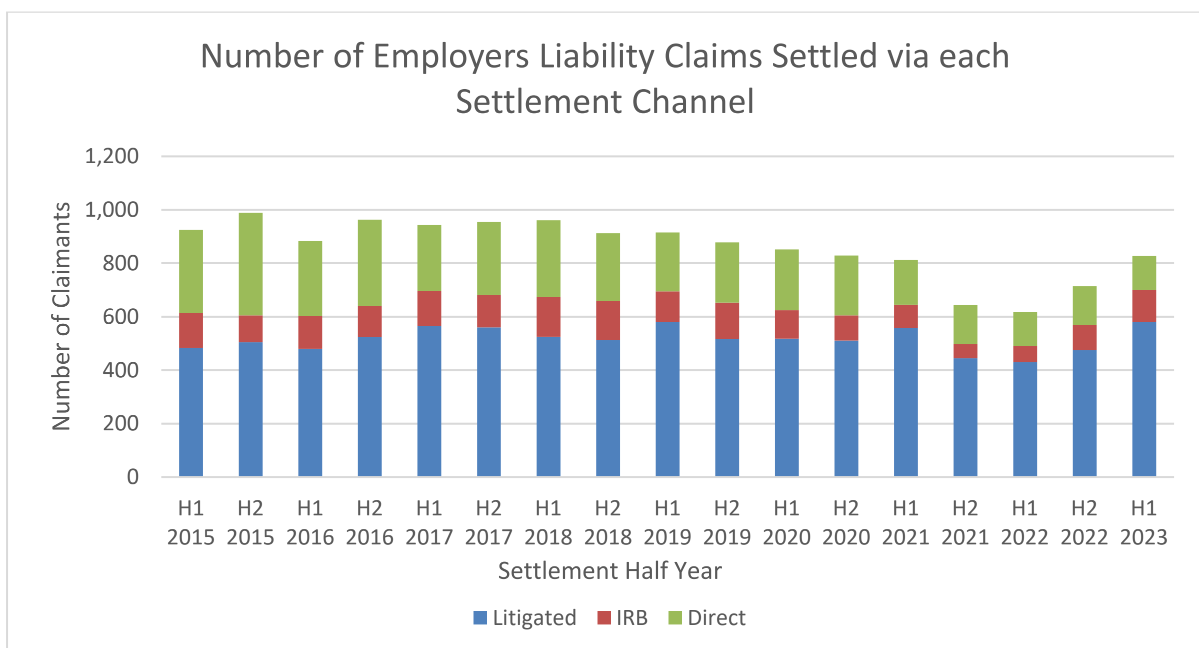
[67] https://www.centralbank.ie/docs/default-source/statistics/data-and-analysis/national-claims-information-database/ncid-employers-liability-and-public-liability-insurance-mid-year-2023-data-results.pdf?sfvrsn=a747611a_3



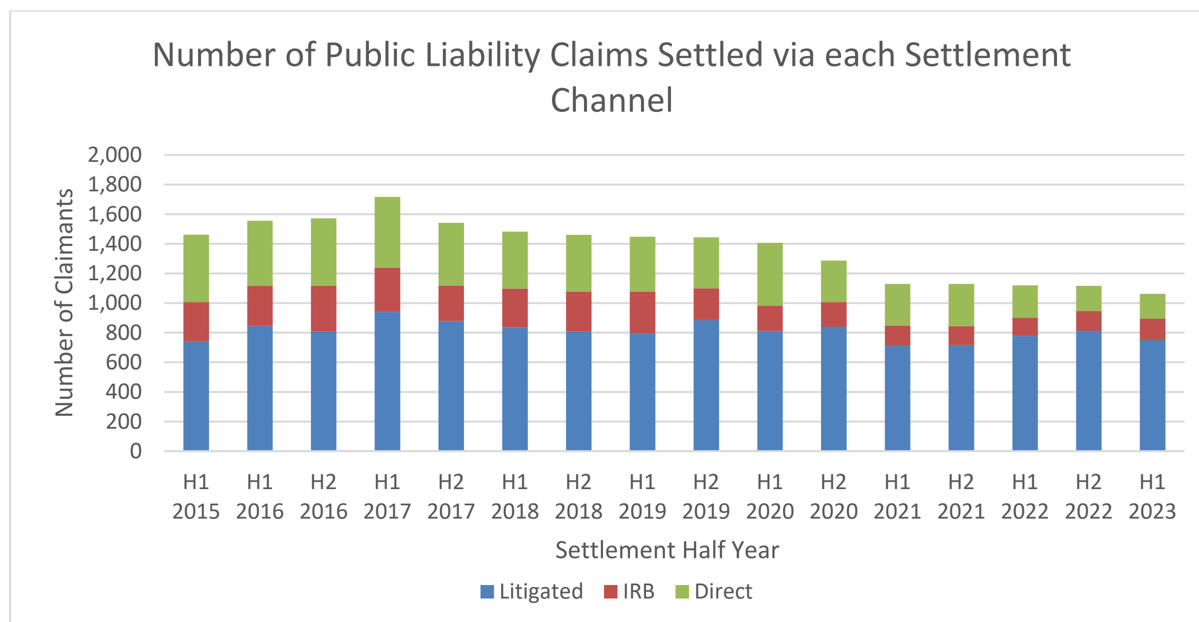

The graph above shows that the average legal cost for claims settled through litigation have increased steadily since 2019. Interestingly, this number had reduced by 0.9% on average annually from 2015 to 2018. However, from 2019 onwards the average increase in legal costs for litigated claims increased by 4.1% per annum. This trend has shown no sign of decreasing with H1 2023 returning an 8.1% increase in litigation costs for litigated claims.

The legal costs associated with direct claims has increased since 2015 also, however to a lesser degree as the average legal costs increased from €2,944 in 2015 to €3,354 in H1 2023. Legal costs associated with IRB have oscillated between 2015 and H1 2023 with its peak in 2015 at €1,840 and its lowest at €642 in 2019.

*Claim Numbers*



The proportion of EL claims settled through litigation has remained relatively stable since 2015. However, the number of claims settled direct has been steadily decreasing. Similarly, the number of claims settled via the IRB steadily decreased from 2018 until 2022 H1, since which there has been a notable uptick.




The trend of PL claims settlements follows EL closely. The most notable difference is that we have not seen an uptick in the number of claim settlements since H2 2022 as we did for EL.

*Premiums*

The average earned premium for the EL and PL components of package policies have seen notable increases since 2016.

| Year | Employers' Liability | Public Liability | Employers' Liability - YoY Change | Public Liability - YoY Change |
|---|---|---|---|---|
| 2009 | 828.6 | 705.5 | | |
| 2010 | 710.4 | 632.5 | -14% | -10% |
| 2011 | 642.5 | 606.1 | -10% | -4% |
| 2012 | 616.2 | 595.4 | -4% | -2% |
| 2013 | 611.0 | 610.3 | -1% | 3% |
| 2014 | 633.1 | 612.2 | 4% | 0% |
| 2015 | 634.4 | 619.6 | 0% | 1% |
| 2016 | 695.8 | 689.5 | 10% | 11% |
| 2017 | 754.6 | 753.6 | 8% | 9% |
| 2018 | 806.5 | 806.0 | 7% | 7% |
| 2019 | 855.4 | 832.3 | 6% | 3% |
| 2020 | 901.5 | 808.7 | 5% | -3% |
| 2021 | 944.0 | 821.2 | 5% | 2% |
| 2022 | 1,037.9 | 915.2 | 10% | 11% |

EL premiums have increased by 70% since 2013 while PL premiums have increased by 50% across the same period. It's worth caveating that these premium figures represent the average earned premium for EL and PL under a package policy. We focus on trends in the cost of package policies as this is the most common type of policy taken out, accounting for 86% of all policies in 2022[68]. While an average premium metric is a crude measure, this metric represents the best available indicator of overall average premiums from the data captured.

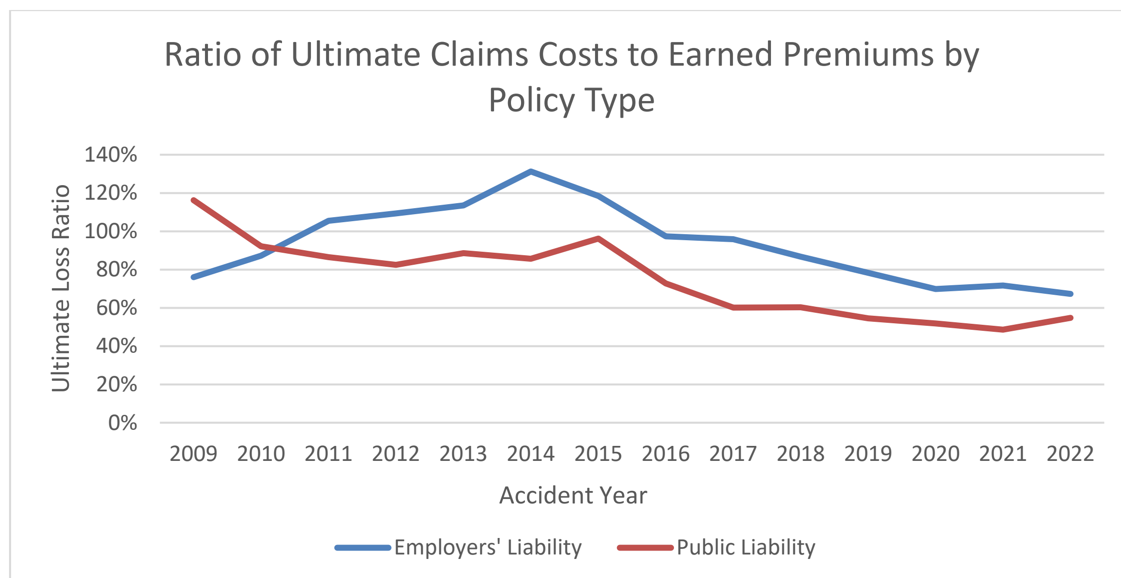
*Ultimate Claims and Loss Ratio*

The ultimate claims cost for PL insurance have followed the following trends since the 2009 accident year:

- Peaked in 2009 with ultimate claims standing at €266m;
- Ultimates averaging €166m between 2010 and 2014;
- Hit a second peak of €190m in 2015;
- Generally reduced between 2016 – 2021 with 2021 ultimate standing at €128m;
- Increased sharply by €35m from 2021 to 2022.

EL ultimates loosely followed a similar trend to PL with the key points to note as follows:

- Ultimates generally increased from the 2010 accident year to its peak in 2014 of €205m;
- Ultimates generally decreased from 2015 to a low in 2020 of €150m;
- Year-on-year increased in ultimate claims in 2021 and 2022 of €16m and €13m respectively.




Since 2009, the Ultimate Loss Ratio ("ULR") for PL business has generally decreased with the exception of a period between 2013 to 2015. Conversely, the EL ULR steadily increased from 2009 to 2014. Since 2014 the EL ULR has generally shown improvements year on year.

[68] https://www.centralbank.ie/docs/default-source/statistics/data-and-analysis/national-claims-information-database/ncid-employers-liability-insurance-report-3.pdf

## 5.3 Flood Risk

### 5.3.1 Introduction

Flood insurance is a critical concern in Ireland, amongst homeowners and business owners alike. A high proportion of the country is exposed to the risks of flooding and there is concern that those who most need protection from flood risks are struggling to source affordable cover.

Flooding in Ireland can occur from a range of sources, individually or combined, including:

- coastal flooding (from the sea or estuaries);
- fluvial flooding (from rivers or streams);
- pluvial flooding (from intense rainfall events and overland flow);
- groundwater flooding (typically from Turloughs in Ireland);
- other sources, such as from blocked culverts.

The increasing frequency and severity of flood events, compounded by rising claims costs, present significant challenges for insurers in maintaining sustainable coverage options for high-risk areas. In this section we shall consider Ireland's approach to managing flood risk and compare it to other European countries. To start with though, we shall begin by looking at a recent case study of flooding in Midleton, Cork.

### 5.3.2 Recent Flood Event in Ireland

Storm Babet was a major low pressure weather system that impacted the south of Ireland on the 17th and 18th of October 2023. Significant amounts of rainfall fell over the course of the storm which led to fluvial flooding in a number of towns in County Cork, with Midleton being one of the worse affected areas69.

There were two key periods of rainfall which drove the severity of the flooding, rainfall prior to Storm Babet and rainfall during the two-day storm.

Prior to Storm Babet hitting the south of the country, **e**xtensive rainfall hit the area for 36 hours prior to the peak of the flood event in Midleton. Storm Babet then hit Midleton around lunchtime on 17th October 2023. Severe amounts of rain fell over the next two days, with rainfall on 17th October being a 1 in 2-year event and rainfall on 18th October being a 1 in 78 year event.

Rather than looking at the two days of Storm Babet in isolation, it was found that the most extreme return period happens when assessing the rainfall duration as a longer single event (approximately 36hrs long). When considered together, the return period of the rainfall is over a 1 in 200-year event. This is illustrated in the table below:

| Youghal WWTP | Duration (hrs) | Depth (mm) | Return Period |
|---|---|---|---|
| 17th October | 16 | 33.1 | 1:2 |
| 18th October | 20 | 87.6 | 1:78 |
| **Total** | **36** | **120.7** | **1:227** |

[69] https://www.floodinfo.ie/frs/media/filer_public/5b/1f/5b1f191c-52a2-428b-b419-6704c3940628/252803_storm_babet_flood_event_report_draft_v2_part1.pdf

The devastation caused by this flood event resulted in 395 residential properties and 286 commercial properties being flooded70. Countrywide, the overall impact of Storm Babet is estimated to be between €63m to €68m71. It has been reported that many of the businesses impacted by the flooding in Midleton do not have flood insurance because the area has flooded multiple times in the past.

### 5.3.3 Irish Government Approach to Managing Flood Risk

A report by the Office of Public Works (“OPW”), issued in 2018 explained that the provision of insurance cover and the price at which it is offered is a commercial matter for insurance companies[72].

The Irish government has targeted mitigating flood risk by adopting the following 3 principles:

- Prevention – avoiding construction in flood prone areas;
- Protection – taking feasible measures to protect areas against flooding;
- Preparedness – planning and responding to reduce the impacts of flood events.

€1.3 billion has been committed over the lifetime of the National Development Plan to 2030 to protect approximately 23,000 properties in threatened communities from river and coastal flood risk. Today, work by the OPW is either underway or complete to deliver protection to 80% of properties assessed to be at risk, with further schemes planned. When all schemes are completed, 95% of assessed properties will be protected from future flooding.

OPW major flood relief schemes are typically designed and built to a minimum standard that protects areas against a 1 in 100-year fluvial flood, and coastal areas against a 1 in 200 year flood event, where it is feasible to do so.[73]

Recently, the Irish government utilised the Emergency Humanitarian Support Scheme for small businesses, sports clubs and community organisations that were impacted by Storm Bert (22nd to 24th November 2024).[74]. These payments will be administered by the Irish Red Cross. The payments will be capped at €5k for smaller scale damage or €20k if significant damages have occurred.

### 5.3.4 Approach from other EU and non-EU Countries

*UK* The UK introduced Flood Re in 2014 to promote the availability and affordability of household insurance for those most at risk of flooding[75]. The Scheme was designed as a transitional measure, with a limited lifespan of 25 years, expiring in 2039. The Flood Re Scheme would allow insurers to transfer the highest flood risk elements at a set premium. Direct insurers continue to pay claims to

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[70] https://www.floodinfo.ie/frs/media/filer_public/fb/81/fb81a02f-fc39-4651-85cf-a38cc602387f/252803_storm_babet_flood_event_report_draft_v2_part2.pdf
[71] https://www.floodinfo.ie/frs/media/filer_public/fb/d2/fbd2216f-db41-4fd9-9ebd-21166e1d37ee/f122_midleton_frs_storm_babet_update_09022024.pdf
[72] https://assets.gov.ie/277286/bde92010-a729-408f-b801-7b50c37086e3.pdf
[73] https://www.floodinfo.ie/about_frm/flood_risk_measures/#:~:text=OPW%20major%20flood%20relief%20schemes,is%20feasible%20to%20do%20so.
[74] gov.ie - Humanitarian Assistance Scheme is available to support householders affected by Storm Bert
[75] https://www.floodre.co.uk/wp-content/uploads/Flood-Re_QQR-2024_Digital.pdf

policyholders on flood risks transferred to Flood Re and then recover those costs from the Scheme. At the same time, it ensures affordable premiums and excesses for the policyholder. Ceding to the Scheme is voluntary and insurers retain the option to reinsure such risks in the general reinsurance market.

Flood Re is funded entirely by the UK insurance industry through (1) a Levy charged to all insurance companies active in the UK home insurance market, with Levy contribution based on market share, and (2) to premiums paid by the insurers for risks transferred to the Scheme. The UK Government does not contribute to the funding of the Scheme.

Flood Re accepts all eligible properties ceded into the Scheme.

*Netherlands*

The Netherlands has high exposure to flood risk and flood-sensitive areas are densely populated. The Dutch government has invested heavily in land reclamation and water management. Flood due to failure of "primary defences" is considered uninsurable by most direct insurance companies, so residents must rely on the State. Flood from rain, streams, canals and minor rivers may be insured, but penetration is low.

Following the Limburg floods in 2021, the government stepped in and introduced with the 'Disaster Compensation Act'. Thanks to this, victims of flood can receive financial compensation for the damage and costs suffered. This only concerns damage that is not recoverable, unavoidable and not reasonably insurable.[76] Private individuals and businesses may be entitled to financial compensation; however, this is only compensation - not reimbursement for all damage and costs.

*Germany*

Flood cover is an optional extension of domestic property insurance in Germany[77]. Accordingly, the density of insurance coverage against floods is on average roughly 50%, despite all efforts to reduce this gap[78]. Perception that it does not offer good value, either for those at high or low risk of flooding and insurance penetration has historically been low.

The German government took a similar approach to the Netherlands and Ireland to provide compensation following devastating flash floods in western Germany's Ahr Valley in 2021 due to low insurance penetration in the country. There were calls after the 2021 floods for flood cover to be mandatory, however, these calls have now mostly been forgotten.

*Spain*

[76] https://www.rijksoverheid.nl/onderwerpen/afhandeling-schade-bij-rampen/wet-tegemoetkoming-schade-bij-rampen

[77] https://vle.actuaries.org.uk/pluginfile.php/141025/mod_resource/content/4/A4%202023.09.19%20GIRO%202023%20-%20Risk%20Reflective%20Flood%20Pricing%20final.pdf

[78] https://www.munichre.com/en/risks/natural-disasters/floods.html

Extraordinary Risk Insurance ("ERI"), including flood, is offered by the Consorcio de Compensación de Seguros ("CCS"). It is a compulsory extension to most property and business interruption policies[79]. The aim of this scheme is to mitigate the insurance protection gap against extraordinary risks like flood but is not limited to flood risks.

It is CCS's duty to pay the compensations derived from extraordinary hazard-caused claims to the policyholders who have paid their ERI levy and do not have extraordinary hazards covered by their insurance policy.

The surcharge applied to policyholder's premium is not risk reflective in order to avoid adverse selection and to minimize the insurance protection gap. Insurers collect the surcharge and transfer it to the CCS. The surcharge applied is a percentage of the cedants sum insured[80].

Most recently, the CCS has been called to action to provide compensation for losses suffered due to the floods in Valencia at the end of October 2024. These floods were the deadliest in modern Spanish history, killing more than 220 people[81]. The CCS estimates total damage to be in the order of €3.5bn [82].

## 5.4 Occupiers Liability Act

### 5.4.1 Introduction

The Occupiers' Liability Act in Ireland underwent significant changes with the enactment of the Courts and Civil Law (Miscellaneous Provisions) Act 2023, which introduced reforms aimed at rebalancing the duty of care between occupiers and those who enter their premises, including visitors, recreational users, and trespassers[83].

Previously, the 1995 Act imposed a broad duty of care on occupiers, which some argued led to an increase in claims and contributed to higher insurance costs. The 2023 Act sought to address these concerns by refining the criteria courts use to assess occupiers' liability. These changes include a more detailed consideration of factors such as the probability of an accident, the severity of potential injuries, the cost and practicality of risk mitigation, and the social utility of the activities taking place[84].

Additionally, the Act raises the standard of care owed to trespassers and recreational users, limiting occupiers' liability to cases of intentional or reckless harm, rather than a more general duty of care. The reforms also make it easier for occupiers to argue that individuals have voluntarily assumed certain risks, even without explicit agreements.

[79] https://unfccc.int/sites/default/files/resource/Spanish%20ERI-case.pdf
[80] https://www.consorseguros.es/en/ambitos-de-actividad/seguros-de-riesgos-extraordinarios/mas-informacion/el-recargo-y-su-tarifa
[81] https://www.bbc.com/news/articles/c1knr8k8mlgo
[82] https://www.consorseguros.es/documents/10184/0/Fourth_briefing_note.pdf/b8b3708b-c1e6-8f29-9a26-1d8c36b23541?t=1731936457295
[83] https://kennedyslaw.com/en/thought-leadership/article/2023/overview-of-changes-to-irish-occupiers-liability-act/
[84] https://www.fieldfisher.com/en-ie/locations/ireland/ireland-blog/changes-to-the-occupiers-liability-act

The Occupiers Liability Act was driven by concerns expressed by farmers in relation to claims by entrants on their land. The Act relates to damages arising from the state and condition of the premises. The legislation does not apply to activities on the premises. Injury otherwise is governed by the laws of negligence. Therefore, accidents due to actions or omission of persons in activities and events are more likely to be considered with reference to the law of negligence[85].

Overall, these changes reflect a shift towards providing greater protection for occupiers, while still maintaining essential safeguards for those entering their properties.

### 5.4.2 Market Impact

This is likely to lead to a decrease in the number of claims filed and the success rate of those claims, which could, in turn, lead to lower payouts by insurers. As a result, insurers may be able to offer more competitive premiums, especially to businesses and public entities that previously faced high insurance costs due to the broad duties imposed by the 1995 Act [86].

Moreover, the introduction of more precise legal standards and defences, such as the voluntary assumption of risk, provides insurers with stronger grounds to contest claims, further reducing the financial risks associated with insuring occupiers.

Overall, these changes are expected to support the Irish government's broader efforts to reform the insurance sector, enhance competition, and reduce costs for consumers and businesses alike.

## 5.5 Legal Environment

### 5.5.1 Injuries Resolution Board

The Injuries Resolution Board (IRB) is Ireland's independent State Body which resolves personal injury claims[87]. These claims may relate to motor injuries, public liability, or employers' liability. The organisation was originally established in 2004 as the Personal Injuries Assessment Board (PIAB), with the aim of supporting fair, prompt, and transparent resolution of personal injuries claims without the need for unnecessary litigation.

The Judicial Council was established in December 2019, pursuant to the Judicial Council Act 2019[88]. The four main pillars of the Judicial Council's remit are to achieve:

- Excellence in the performance of judicial functions
- High standards of conduct among judges
- An independent Judiciary
- Public confidence in the judiciary and in the administration of justice.

[85] https://legalguide.ie/occupiers-act-issues/#occupier-liability-act
[86] https://www.williamfry.com/knowledge/careful-where-you-tread-important-changes-to-law-on-occupiers-liability-in-ireland/
[87] https://www.injuries.ie/eng/about-injuries-resolution-board/
[88] https://judicialcouncil.ie/about-the-judicial-council/

The Personal Injuries Guidelines (PIG) Committee were established in April 2020 by the Judicial Council[89]. The Committee submitted to the Board of the Judicial Council the first draft of the Personal Injuries Guidelines pursuant to Section 18 (4) of the Judicial Council Act 2019 in December 2020, and these guidelines were adopted on 6th March 2021 after a majority vote (83 in favour, 63 against, 22 abstained)[90]. The Guidelines were adopted by the Judicial Council and took effect on 24th April 2021. The Guidelines apply to all new claims received by the Injuries Resolution Board after this date. The IRB have published their latest report with data up to June 2023[91], with notable findings relating to each of claim volumes, award values, injury analysis and acceptance rates.

In the first half of 2023, the volume of claims submitted to the IRB were up 16% on the same period in 2022. This increase is primarily driven by an increase in motor liability claims (+22%), with motor liability typically making up about two thirds of assessments made by the IRB. There were smaller increases seen across public liability (+12%) and employers' liability (+5%). When looking at full year data, claim volumes in 2023 were 10% higher than 2022, but were still 35% lower than the volume submitted in 2019. It is difficult to decipher how much of this effect is related to pandemic restrictions and associated societal changes, and how much is attributed to the updated guidelines.

The IRB made a 12% increase in the number of assessments of compensation in the first half of 2023 vs the same period in 2022. The consent rate (the proportion of Respondents to a claim that consent to an assessment of compensation by the IRB) increased from 55% in 2020, to 60% in 2021 and a high of 70% in 2022, broadly stable moving into 2023. Motor liability (78%) and Employers' Liability (65%) have both seen +16% increases in in consent rates from 2020 to 2022[92]. Public liability had the lowest consent rate and only reached 54% in 2022, the first time that more claims consented than not. While this figure lags the other claim types, it still represents a +11% increase on 2020 figures.

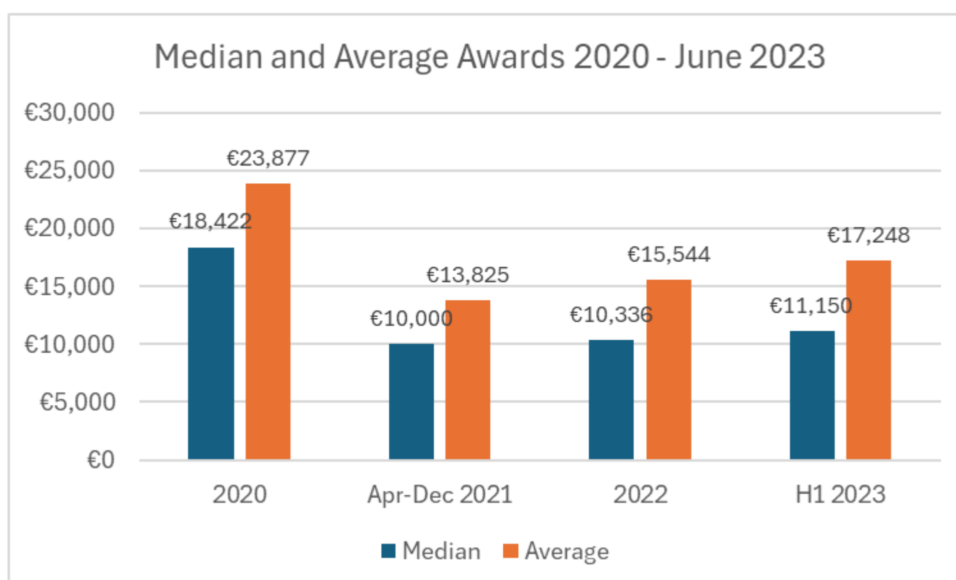
There was a large step change in the median award value from full year 2020 to post-April 2021 (after guidelines' implementation) from €18,422 to €10,000. This has since increased slightly year on year up to €11,150 for H1 2023. Motor liability has seen the greatest drop in median award since 2020, with a reduction of 43% of the median award, compared to 40% for public liability and 34% for employers' liability. All three claim types are up on 2022 medians however: motor liability up 5%, public liability up 21% and employers' liability up 7%. Average awards saw smaller decreases from 2020 to 2023 (down 28% overall), and larger increases from 2022 to 2023 (up 11% overall), as larger awards tended to skew the size of the average award.

[89] https://judicialcouncil.ie/personal-injuries-guidelines-committee/

[90] https://www.irishlegal.com/articles/high-court-judges-who-voted-for-personal-injuries-guidelines-do-not-need-to-recuse-themselves-from-legal-challenge

[91] https://www.injuries.ie/eng/news-publications/reports/personal-injuries-award-values-report-jan-june-2023.pdf

[92] https://www.injuries.ie/eng/about-injuries-resolution-board/reports/piab-annual-report-2022.pdf




When considering the differences in awards over time, it is worth considering the complexity of the claims which are granted awards. The table below shows the average time in years between reporting of a claim to the insurer and ensuing settlement. Directly before and after PIAB refer to claims settled either before or after PIAB involvement but before legal proceedings. PIAB refers to claims settled via PIAB, while litigated with court awards relates to compensation award set by a judge via legal proceedings. According to the National Claims Information Database (NCID) data published by the Central Bank of Ireland (CBI), there was a drop in the average time taken to settle motor liability claims on the PIGs for 2021 and 2022 before increasing to levels more comparable to the Book of Quantum (BOQ) in H1 2023[93]. Claims that take less time to settle would generally be expected to have lower average awards compared to claims that take longer to settle. The PIGs have not yet materially impacted the cost of claims settled via litigation and will likely take time to take effect in this channel given long duration between the accident being reported and the settling of a claim. While litigated claims represented about one third of settled claim numbers prior to the PIGs, they typically represented about two thirds of total costs of claim settlements. Therefore, any effect on litigated claims which may become apparent with time will be highly material when judging the overall effect of the PIGs.

| Average time (years) from report of claim to insurer and settlement | Settled under BOQ | Settled under PIG | | |
|---|---|---|---|---|
| **Settlement Channel** | **2020** | **2021** | **2022** | **H1 2023** |
| Direct before PIAB | 1.1 | 0.7 | 0.8 | 0.9 |
| PIAB | 2.1 | 2.0 | 2.2 | 2.2 |
| Direct after PIAB | 2.3 | 1.6 | 2.1 | 2.4 |
| Litigated with Court Award | 4.1 | 2.3 | 2.6 | 3.1 |

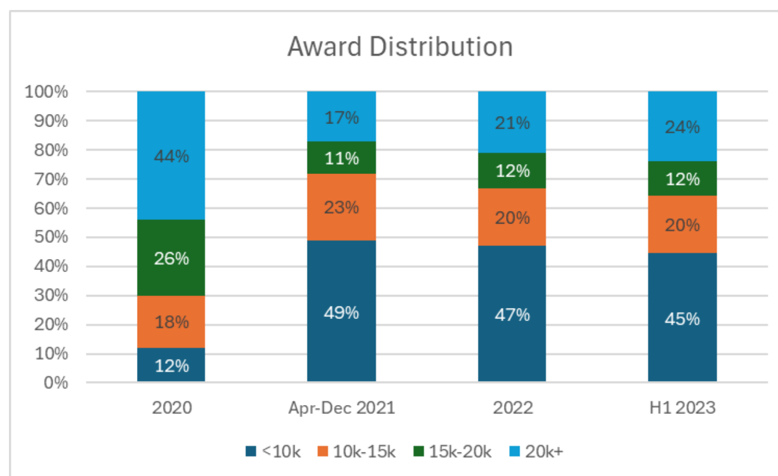
The NCID report for employers' liability and public liability looks at data up to end of 2022[94]. For injury claims settling through PIAB in 2022, which make up approximately 5% of total settlement costs of injury claims, 83% settled under the PIGs at an average cost of 34% less than the BOQ. For those settling directly, making up approximately 6% of settlements costs, more than two thirds settled under

[93] https://www.centralbank.ie/docs/default-source/statistics/data-and-analysis/national-claims-information-database/2023-private-motor-mid-year-report-2.pdf

[94] https://www.centralbank.ie/docs/default-source/statistics/data-and-analysis/national-claims-information-database/ncid-employers-liability-insurance-report-3.pdf

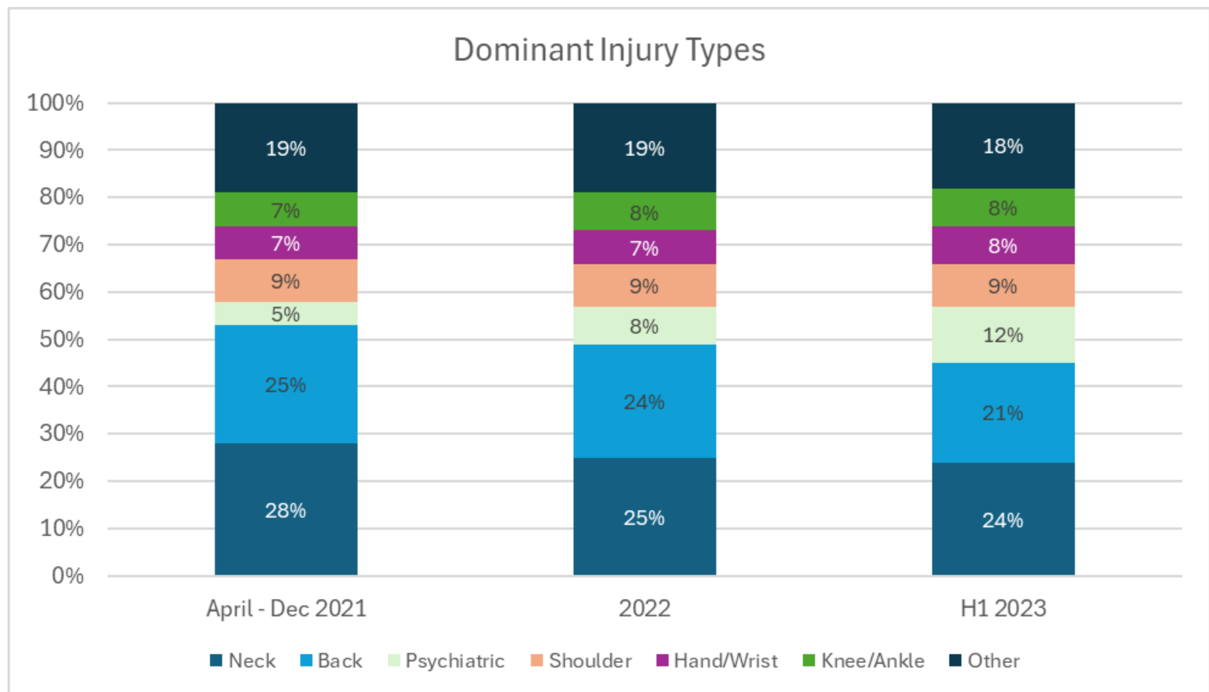
the PIGs at an average cost of about 30% lower than the BOQ. 89% of all settlement costs in 2022 settled through litigation, and only 4% of these settled under the PIGs, leaving their impact in this channel unable to be determined.

When examining the distribution of awards across the four-year period surrounding the implementation of the guidelines, there is a large step change in awards as soon as they come into effect, with gradual movements in the following years. There is a significant drop in the proportion of awards over €20k, and a large increase in awards under €10k into 2021, although there is an upward-trending effect beginning in 2022 and continuing into H1 2023. In 2020, 70% of all awards from PIAB were for €15k or more, while in 2021 after the implementation of the PIGs, this figure dropped to 28%. This figure has since risen to 36% for H1 2023 – again, this likely relates to more complex injury cases taking longer to settle, and therefore skewing slightly the earlier data.




It is likely that there is some element of correlation here between award values and acceptance rates. Acceptance rates were 51% in 2020 and dropped to 44% in both 2021 and 2022. This has increased to 48% in H1 2023, with the slightly higher awards potentially causing the increased acceptance. It is worth noting that for an award to be accepted, both Claimant and Respondent must accept the award. In H1 2023, Claimants accepted the award 51% of the time, while Respondents accepted the award 94% of the time; where an award is not accepted, it is generally due to the Claimant rejecting the award.

Increases in average awards are naturally going to be related to mixes of claim types. It is interesting to note that upon implementation of the PIGs, neck and back injuries accounted for 53% of all awards, but this figure has been falling, and now stands at 45% for H1 2023. There has been a corresponding increase in the mix of claims citing psychiatric damage as the dominant injury; these represented just 5% of claims in 2021 and are up to 12% of claims in H1 2023. Most other injury types have been relatively stable in terms of their mix over time.




### 5.5.2 Legal Challenge

In April 2019, Brigid Delaney tripped on a defective footpath in county Waterford, sustaining injuries to her knee and an ankle fracture, which resulted in her requiring a medical boot for a month[95]. Ms Delaney was advised that based upon the Book of Quantum, the relevant point of reference for valuing general damages at the time of the incident, her injuries could warrant an award of up to €34k. The claimant subsequently applied to PIAB in June 2019. PIAB issued its assessment in respect of the incident and in May 2021, PIAB valued the general damages at €3k with reference to the PIGs.

Ms Delaney brought a High Court case in 2022 against PIAB and Others. Her case was two-fold:

1. She sought to challenge the constitutionality of the way that the PIGs came into force
2. She sought to challenge the way PIAB applied the PIGs when they assessed her award for general damages[96].

The High Court ruled against Ms Delaney, who then appealed directly to the Supreme Court, given the case concerned a matter of general public importance. The Supreme Court delivered its judgements on 9th April 2024. The majority of the Court found that the section of the Judicial Council Act, which provided for the adoption of the guidelines, went too far in interfering with judicial discretion and on that basis, it was found to be unconstitutional. The Court noted, however, that the enactment of the Family Leave and Miscellaneous Provisions Act 2021 rectified this issue, giving the PIGs legal standing. The appellant had argued that PIAB had delayed in assessing her claim, given that the usual time limit for PIAB to assess a claim is 12 months. The Court held that no one has a vested property or personal right to have their case adjudicated under the Book of Quantum, and on that basis, there is no entitlement to a certain level of damages.

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[95] https://www.irishlegal.com/articles/supreme-court-landmark-decision-on-personal-injuries-guidelines

[96] https://www.mhc.ie/latest/insights/personal-injury-guidelines-here-to-stay

Insurance Ireland welcomed the decision of the Supreme Court[97]. CEO Moyagh Murdock commented that the Supreme Court's decision is a "very welcome outcome for consumers" as it is "the most important piece of the Government's Insurance Reform Agenda in seeking to bring down the high cost of personal injury awards in Ireland". The IRB estimated in 2022 that a total of €40m was saved in avoided costs due to claims not going through litigation[98].

The PIGs are due to be reviewed within three years of adoption, i.e. within three years of 6th March 2021, and every three years thereafter[3]. In March 2024, the PIG committee completed its review of the PIGs and submitted the outcome to the Board of the Judicial Council. As of December 2024, the PIGs had not yet been updated. This had initially led to some uncertainty regarding future awards and whether inflation should be applied to expected payments. There was, however, an amendment made to the Judicial Council Act 2019 passed by both Houses of the Oireachtas in July 2024 through the Courts, Civil Law, Criminal Law and Superannuation (Miscellaneous Provisions) Act 2024. This amendment provided that PIGs in force immediately before coming into operation of the Bill shall continue in force without amendment until amendments to the PIGs are adopted under the revised procedures specified in the Bill[99]. The amendment also provided that any new version of the PIGs adopted by the judicial council will need to be approved by resolution by each House of the Oireachtas, addressing further issues raised in the Delaney Supreme Court case. Despite the initial review carried out by the PIG committee, the timeline for revision of the guidelines in force remains uncertain given the November election.

### 5.5.3 Catastrophic Injuries – Periodic Payment Orders and Discount Rate

In July 2024, the Minister for Justice published two reports relating to compensation payments in personal injuries cases. These relate to the Periodic Payment Orders Indexation Rate and the Discount Rate for use in catastrophic injury cases[100].

**Periodic Payment Orders Indexation Rate[101]**

Periodic Payment Orders (PPOs) are an alternative to lump sum awards as a method of paying compensation to catastrophically injured people. Annual payments are made instead of a one-off lump sum. This annual payment is calculated to meet the cost of permanent and long-term care and treatment. An indexation rate is applied to the annual payment to ensure that the amount keeps pace with inflation. The perceived benefits of this method of payment are that it avoids the risk of inadequate compensation due to the cost of care or treatment, and the payments are linked to the actual duration of life rather than life expectancy, meaning the claimant is less likely to run out of money.

[97] https://insuranceireland.eu/news-and-publications/news-press-release/insurance-ireland-welcomes-delaney-judgment-and-says-it-is-positive-for-the-insurance-reform-agenda/
[98] https://www.injuries.ie/eng/about-injuries-resolution-board/reports/piab-annual-report-2022.pdf
[99] https://www.gov.ie/en/press-release/e7e2f-ministers-mcentee-and-browne-welcome-passage-of-the-courts-civil-law-criminal-law-and-superannuation-misc-provisions-bill/
[100] https://www.gov.ie/en/press-release/181e7-minister-mcentee-publishes-reports-on-index-and-discount-rates-for-payments-to-catastrophically-injured-people/
[101] https://www.gov.ie/pdf/?file=https://assets.gov.ie/297971/123d29b2-5b84-4345-9a90-f8768c7e8251.pdf

The Civil Liability (Amendment) Act 2017 inserted a new Part (Part IVB) into the Civil Liability Act 1961. The new Section 51L provided that PPOs shall be adjusted annually by reference to the Harmonised Index of Consumer Prices, or another index specified in the section.

The judgement of Ms. Justice Murphy in the case of Hegarty vs the Health Service Executive[102] in November 2019 found that wage and cost inflation outstripped the HICP by 1-1.5% per annum. The use of the HICP as the index for PPOs will therefore leave a claimant undercompensated over their lifetime and could result in a shortfall of up to 52%. The overall effect of the Murphy judgement is that PPO solutions in catastrophic injury cases are not being pursued by claimants.

The Inter Departmental Working Group on Identifying an Indexation Rate for Periodic Payment Orders was established to advise the Minister on what an appropriate index for PPOs should be. The group considered four options on what the index should be:

1. Using 100% HICP plus 100% of the Annual Rate of Change (ARC) in Health Earnings
2. Using 100% HICP plus a proportion of the ARC in Health Earnings
3. Using a proportion of HICP plus a proportion of ARC in Health Earnings
4. Using Inflation Indices from the Department of Public Expenditure, NDP Delivery and Reform

The group gave the following recommendations:

- In the short term, the PPO indexation rate should be based on a combination of HICP and ARC in nominal hourly health earnings
- In the short term, the weightings should be 80% of ARC in health earnings plus 20% of the HICP
- Wage inflation figures for the health sector arising from the Structure of Earnings Survey (SES) should replace the ARC in health earnings once regular reporting on the SES commences, expected from 2026 onwards.

**Setting the Discount Rate[103]**

The discount rate is the rate used by courts in cases involving catastrophic injuries to determine the quantum of a lump sum award necessary to compensate a claimant for future losses. The discount rate currently stands at 1% for future care costs and 1.5% for other economic or pecuniary losses. These discount rates were determined by the High Court and the Court of Appeal in 2014 in the case of Russell vs HSE[104].

The Minister for Justice appointed Mr. Justice Brian McGovern, a retired member of the Court of Appeal, to chair the Expert Group to advise on the appropriate discount rate and risk profile of claimants. The Minister also sought advice from legal, actuarial, economic and investment experts through nominations from the appropriate professional bodies.

The group gave the following recommendations:

- No change to either of the discount rates set in 2014

[102] https://www.courts.ie/acc/alfresco/e3fb19c3-20f5-4536-af8a-48eb79556b39/2019_IEHC_788_1.pdf/pdf
[103] https://www.gov.ie/pdf/?file=https://assets.gov.ie/297972/6bace304-cabb-48fe-b1aa-7d8a81c42c09.pdf
[104] https://ie.vlex.com/vid/russell-v-the-health-792601077

- The 0.5% differential determined by the Courts appears reasonable and therefore recommends no change
- Discount rate should be kept under review, and an expert group should meet at a maximum of every three years to reassess the discount rate
- A trigger mechanism should be introduced to commence any review of the discount rate, which could be linked to, for example, the performance of index-linked government bonds
- Any new judgement superseding the Russell judgement should also trigger a review of the discount rate set
- Plaintiffs in catastrophic injury cases should be considered as having a risk averse investment profile.

## 5.6 Evolving Transport

### 5.6.1 E-Scooters

As of 20th May 2024, new laws were introduced in Ireland to allow for the legal use of e-scooters[105]. This is subject to certain criteria, with key rules outlined below. An e-scooter user must:

- Be a minimum of 16 years old
- Obey a speed limit of 20km/h
- Have lights, a bell or other audible warning device, reflectors and brakes on their e-scooter
- E-scooter must be kept in a roadworthy condition at all times
- Abide by the same rules of the road as cyclists, including traffic lights and road signs.

E-scooters must not use footpaths, hold or use a mobile phone, or carry any passengers or goods. Users are also not allowed to have a seat on their e-scooter. Helmets are recommended but not required, while there is also no requirement for any of insurance, tax or vehicle registration. Ireland can be compared to other select European countries in the below table[106]:

| Country | Min Age | Max Speed (km/h) | Helmet Requirement | Pavement | Insurance Required |
|---|---|---|---|---|---|
| Austria | 12 | 25 | u12s only | Forbidden | No |
| Belgium | 16 | 25 | None | Forbidden | No |
| Bulgaria | 14 | 25 | u18s only | Forbidden | No |
| Croatia | 14 | 25 | Required | Limited to 5km/h | No |
| Denmark | 15 | 20 | Required | Forbidden | No |
| France | 14 | 25 | No | Limited to 5km/h | TP insurance required |
| Germany | 14 | 20 | No | Forbidden | TP insurance required |
| Ireland | 16 | 20 | Recommended | Forbidden | No |
| Italy | 14 | 20 | Recommended | Forbidden | No |
| Luxembourg | 10 | 25 | Recommended | u13s | No |
| Netherlands | 16 | 25 | No | Forbidden | TP insurance required |
| Norway | 12 | 20 | u15s | Permitted with lower limit | TP insurance required |
| Portugal | None | 25 | Recommended | Forbidden | No |
| Spain | 16 | 25 | Varies by city | Forbidden | No |
| Sweden | None | 20 | u15s | Forbidden | No |

Rule enforcement can vary by country; there are fines in Italy and Poland for breaking traffic rules, while there are fines in Spain and Denmark for not wearing a helmet. Missing equipment warrants a fine in France, while reckless driving can result in a fine or up to one year imprisonment.

Different countries have different rules for both minimum age and maximum speed but are typically 14-16 years and 20-25km/h. Helmets are recommended but not required in many countries. Perhaps

105 https://www.rsa.ie/road-safety/road-users/special-purpose-vehicles/e-scooters

106 https://www.evz.de/en/reisen-verkehr/e-mobilitaet/zweiraeder/e-scooter-regulations-in-europe.html

the most interesting takeaway, however, is the requirements for insurance. France, Germany, The Netherlands and Norway all have requirements to hold third party liability insurance. In France, e-scooter insurance became mandatory from October 2019. Uninsured drivers are liable for a fine of up to €3,750[107].

Paris voted to ban shared e-scooters from September 2023[108]. Paris had been one of the first cities in Europe to introduce free floating shared e-scooters just five years previously, and the French capital has now become one of the first cities to outlaw them. Safety and perception of danger had been cited as reasons to influence this decision according to the Shared Mobility Manager of Paris – there was a feeling of insecurity around how they were being used. Studies found users of shared e-scooters were mostly males aged 30-35 years old, whereas people who used private e-scooters were older and used them for longer trips. The mobility federation say that people buying e-scooters must take out insurance to be able to use them, which makes users more responsible.

In August, an e-scooter sharing scheme pilot project was launched in Wexford town by mobility company Bolt[109]. In the first four weeks of the scheme, there were 1,024 unique users, travelling a total of 9,000km across 3,750 trips. The scooters have cognitive tests to measure users' reaction times to ensure riders are not impaired, while they also have a built-in tandem riding prevention system to stop more than one person riding at a time. The devices are limited to 20km/h, and users must be over the age of 18. There were no accidents reported in the first four weeks of trials, although 25 users have received warnings about reckless driving, and seven people have been banned from the scheme. The first half of 2024 saw 174 collisions involving scooters in Ireland, up from 123 the previous year. The number of fatal and serious injury collisions also rose from 18 to 39 for the same period [110]. There are currently no plans to make third party insurance mandatory in Ireland.

E-scooters have been prohibited from carriage on public transport from October 7th [111]. This relates to e-scooters but not to e-bikes or mobility scooters. E-scooters are a relatively new product and were unregulated in Ireland until earlier this year, and as a result the quality control of e-scooter construction is not as mature or as well developed as it is for e-bikes and mobility scooters. The guidance on batteries issued from the National Transport Authority[112] has been prompted by safety concerns in relation to lithium-ion batteries which are common in e-scooters. These batteries are known to develop internal faults, leading to overheating and combustion. Similar restrictions regarding public transport are already in place in cities such as Berlin and Barcelona.

### 5.6.2 Electric Vehicles

**History**

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[107] https://www.wee-bot.com/en/blogs/actualites-trottinette-electrique/reglementation-trottinette-electrique-2024
[108] https://cities-today.com/how-the-e-scooter-ban-has-changed-mobility-in-paris/
[109] https://www.rte.ie/news/leinster/2024/0913/1469848-wexford-e-scooters/
[110] https://www.rte.ie/news/primetime/2024/0802/1463170-e-scooters-collision-concerns-remain-despite-new-legal-certainty/
[111] https://www.nationaltransport.ie/news/prohibition-of-e-scooters-on-public-transport-for-safety-reasons-announced/
[112] https://www.nationaltransport.ie/publications/advice-note-on-the-carriage-of-e-scooters-on-public-transport/

Electric Vehicles (EVs) may seem like a modern concept, but in fact can trace their origins back to the 1830s in Scotland when Robert Anderson built a motorized carriage using a battery[113]. A larger version built in 1841 could travel 1.5 miles at a speed of 4mph carrying six tons, before having to replace the battery with a new one. Rechargeable batteries were introduced in 1859, before the first commercially viable EV, the Electrobat, was patented in 1894.

The Ford Model T, powered by gasoline, became commercially available in 1908 and cost less than half the price of most electric cars. Within a few years, cost savings in production were passed on to customers, and by 1923, the Model T price was around 10 times lower than many EVs. The 1920s saw improved road infrastructures and cheaper gasoline. When coupled with the limitations of electric cars relating to range, low speeds and lengthy recharge time, internal combustion engine (ICE) vehicles dominated the car market for much of the remaining 20th century[114]. While ICE vehicles don't typically suffer from the same drawbacks as EVs, the main disadvantages of these vehicles relate to emissions; these include carbon dioxide which contributes to climate change, as well as other pollutants which contribute to poor air quality, such as carbon monoxide, nitrogen oxides, hydrocarbons and ammonia[115].

**Environment**

In order to reach its climate neutrality goal by 2050, the European Union has taken action to reduce emissions from cars as road transport accounts for one fifth of the EU's CO2 emissions. All new cars registered from 2035 cannot emit any CO2[116]. This will inevitably increase the demand for electric cars and other, more sustainable fuel types.

**Advantages and Disadvantages**

The Sustainable Energy Authority of Ireland (SEAI) note that EVs are not zero emissions, and instead have zero tailpipe emissions. EVs emit around 60g of CO2 per km travelled versus 130g of CO2 for a petrol engine[117]. EVs having zero tailpipe emissions is of great benefit to pedestrians and cyclists, who are spared from breathing in the dangerous gases of ICE cars, especially in built up areas. There are further benefits of EVs in terms of noise pollution and no requirements for engine oil. With the introduction of smart meters and alternative energy sources across Ireland, it is becoming increasingly easier and cheaper to manage charging of EVs for households. The SEAI note that overall energy consumption is lower during the night, and that is when wind generation tends to be more prominent in the energy mix. By charging at night, EVs can help the consumption of greater amounts of renewable energy.

Other benefits of electric cars to consumers include lower annual motor tax and grants available for purchase. Annual road tax for an EV in Ireland is €120, with road tax for ICE vehicles ranging from €140

[113] https://www.caranddriver.com/features/g43480930/history-of-electric-cars/

[114] https://www.britannica.com/technology/automobile/Early-electric-automobiles

[115] https://www.transportenvironment.org/articles/electric-vehicles-are-far-better-than-combustion-engine-cars-when-it-comes-to-air-pollution-heres-why

[116] https://www.europarl.europa.eu/topics/en/article/20221019STO44572/eu-ban-on-sale-of-new-petrol-and-diesel-cars-from-2035-explained

[117] https://www.seai.ie/plan-your-energy-journey/for-your-home/electric-vehicles/about-evs/why-drive-electric/the-environment/

to €2,400, depending on emissions, engine size and date of registration[118]. Grants are available to both private and commercially purchased new EVs of up to €3,500 and €3,800 respectively, although this has been reduced from €5,000 before July 2023.

However, EVs are not without their disadvantages; 30% of EV drivers in Ireland say their biggest concern since purchasing their vehicle is range anxiety[119]. Range anxiety is defined as "worry on the part of a person driving an electric car that the battery will run out of power before the destination, or a suitable charging point is reached". 18% noted the lack of charging infrastructure in Ireland as their primary concern, meaning just under half of drivers' primary concern related to charging or maintaining charge in their car. Dublin's local authorities have announced the rollout of 200 public charging points over the next two years, resulting in a 50% increase in the capital's infrastructure[120]. It is projected that Dublin will require 8,000 EV charge points over the next six years to cater for EV owners, and so significantly more investment in infrastructure is required to meet the public's needs. 20% of drivers noted that depreciation in value of EVs was their biggest worry. DoneDeal, one of Ireland's largest car marketplaces, notes that EVs accounted for less than 1% of its total stock in Q1 2022, while this figure had increased to 5.1% of total stock as at Q3 2024[121]. This rapid increase in supply has in part contributed to falling second hand values of cars; EV prices are 14.8% lower in 2024 Q2 compared to the same period in 2023. This compares to an average increase of +4.9% for used ICE cars over the same period. Manufacturers significantly reduced prices of new EVs in 2023, largely in response to Chinese brands such as BYD, MG and Ora, further contributing to the depreciation of used EVs.

**CSO Data[122]**

Annual CSO data shows that the fuel type of newly registered vehicles in Ireland from 2015 to 2023 has been shifting from more traditional ICE vehicles to Electric and Hybrids. This is most evident when looking at Diesel vehicles – the proportion of Diesel vehicles has halved from 76% to 38% over the 8-year period. It is interesting to note that there has been a slight increase in Petrol fuel types, from 23% to 27%.

There has also been a steady increase in Hybrid vehicles, which use a combination of electricity and fossil fuels, although this has been broadly steady at around 20% for the 3 years to 2023. Pure EVs have been increasing steadily year on year, and in 2023 represented 15% of all newly registered vehicles in Ireland.

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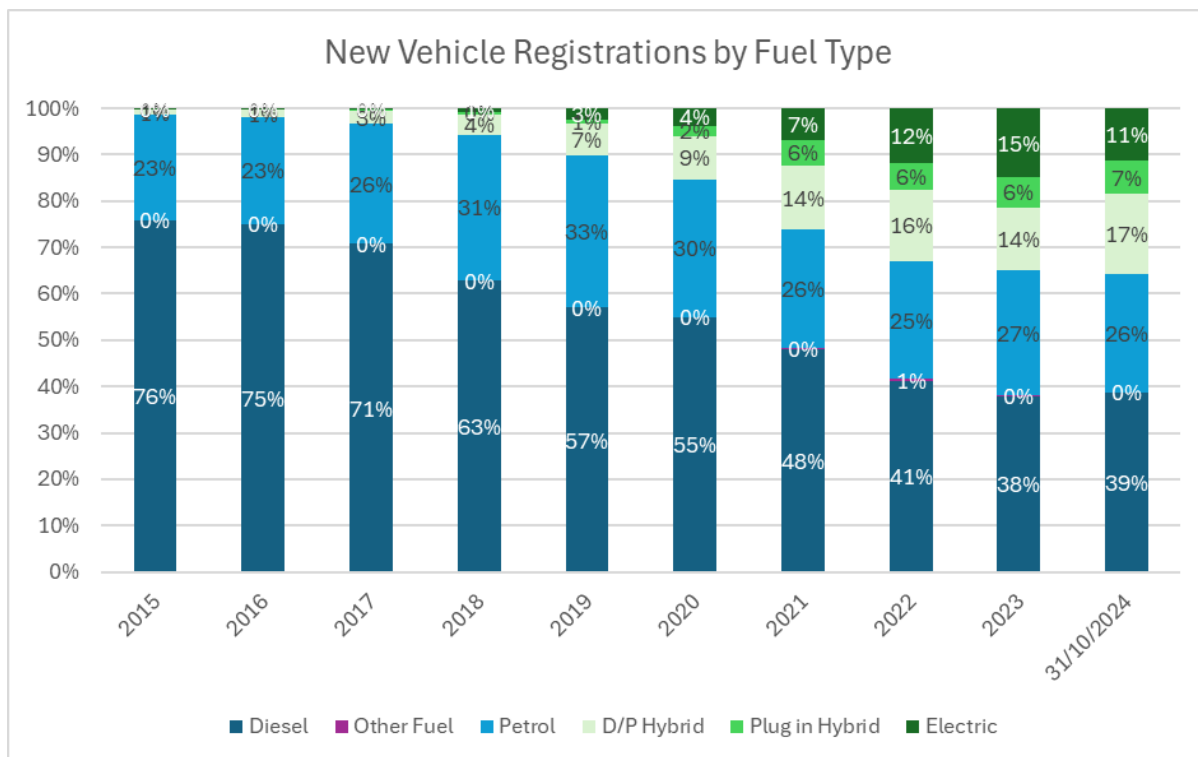
[118] https://www.carzone.ie/news/motor-and-road-tax-prices-ireland-2017/1437
[119] https://www.blog.donedeal.ie/post/90-of-ev-drivers-experience-cheaper-running-costs-since-switching-to-electric-up-from-85-last-yea
[120] https://www.rte.ie/news/dublin/2024/1011/1474817-ev-chargers-dubling/
[121] https://www.blog.donedeal.ie/post/sharp-price-adjustment-observed-in-the-used-ev-market
[122] https://data.cso.ie/table/TEM12




Looking at more recent monthly figures, the data tells a slightly different story. The proportion of newly registered traditional ICE vehicles in 2024 through October is similar to 2023 at 65%, however the proportion of EVs has dropped by about 4% points to 11%. Consumers have instead made a slight shift towards Hybrid fuel types, which have represented 24% of sales in the first eight months of 2024, up 4% points compared to data for full year 2023. Insurance broker the AA believe that misinformation regarding EVs is impacting their sales[123]. A survey conducted by the company show that 53% of people believed that EV batteries last less than 100,000km, or about six years of average driving in Ireland, which doesn't align to the eight year and 160,000km warranties that many manufacturers are offering.

**Claims**

There is a common belief that EVs pose a greater risk for fires than traditional ICE vehicles. According to evfiresafe.com based on EV fires from 2010-2020, there is approximately a 0.0012% chance of a passenger EV battery catching fire, versus approximately a 0.1% chance of fire for an ICE vehicle[124]. According to Tesla, the world's biggest EV manufacturer, a Tesla car will experience a fire every 130 million vehicle miles travelled, compared to an average of one fire every 18 million miles travelled for all vehicles in the United States[125]. While there are indications that EVs have a lower frequency of fires, it does appear that the severity of incidents can be higher. According to evfiresafe.com, an ICE car fire can reach 1000 degrees Celsius, and EV fires can reach up to 1200 degrees. Water consumption required to extinguish a vehicle fire can increase from 500 gallons to over 3,000 gallons when comparing an ICE fire to an EV fire[126]. Reignition is also a problem with EVs – where the fire from the battery appears to be put out but reignites at a later stage. In a study by evfiresafe.com, it was found

[123] https://www.theaa.ie/blog/aa-ireland-survey-shows-shocking-results-around-evs/
[124] https://www.evfiresafe.com/ev-fire-faqs
[125] https://www.tesla.com/VehicleSafetyReport
[126] https://www.empteezy.co.uk/blogs/case-studies/firefighters-embrace-innovation-to-extinguish-ev-fire-risks

that 13% of vehicles reignited following initial suppression. Submerging EVs underwater is a technique now used to tackle reignition.

Many EVs operate with a push start button rather than a traditional key inserted into the ignition. There are now hi-tech devices which can mimic the presence of the legitimate key by extending the range a key will work, sending a signal to the car that the key is present, and starting the engine. A thief can then drive the car to another destination. The car will not be able to start again once it has driven away from the house which it is stolen from, however it has become common for thieves to drive these cars to warehouses, where they are then scrapped for parts. The main attraction for EVs here is that it is straightforward to remove the battery from the car and sell for cash. This is primarily due to the high value associated with electric batteries; however, the relative value of a battery as a percentage of total car value is falling. Statista quotes this figure as 28% in 2024 and is projected to drop to 19% by 2030[127]. This may, in turn, have a knock-on effect on vehicle thefts.

University of Limerick and University of Barcelona conducted a study of driving behaviour and insurance claims for ICE, EVs and Hybrid vehicles[128]. Their analysis was based on telematics data from vehicles in the Netherlands and found that EVs cause 3.2% more collisions than traditional vehicles. While mileage can be a traditional risk indicator for collisions, they found that despite EVs having lower average mileage than traditional vehicles, they still had a higher percentage of at-fault claims, indicating that lower average mileage did not offset the road exposure risk.

According to UK-based Thatcham Research, EV claims usually cost 25.5% more than their ICE equivalents and can take around 14% longer to repair[129]. UK government guidelines state that due to potential fire risk, EVs awaiting repair should be stored in an outside quarantine area, at a safe distance of 15 metres from other nearby objects. This would mean that an outside storage space with capacity for 100 ICE vehicles would allow for the safe quarantine of just two EVs, representing a potential 98 percent reduction in repair capacity. The costs incurred by following recommended quarantine protocols could add a minimum of £60 to every claim.

According to the German Insurance Association, the GDV, EV repair costs are on average 30-35% higher than ICE cars, while US industry analysts Mitchell noted the same comparison at 20% higher costs for EVs[130]. Some of this can be attributed to a process known as Gigacasting. Gigacasting is where cars are made with fewer pieces, therefore making the construction process more affordable and efficient to build. This can be done using a Gigapress, an instrument which involves pouring molten aluminium into a mould that, when set, forms the front, rear or centre structure of the vehicle. A Gigapress can produce a section of a vehicle in about three minutes which, under existing processes, uses 86 parts, 33 separate production processes and can take many hours. While savings can be made at the point of production because of the process, this can lead to large increases in the cost of repair. A small, damaged component of a vehicle can be replaced easily, but replacing a large section of

[127] https://www.statista.com/statistics/797638/battery-share-of-large-electric-vehicle-cost/

[128] https://researchrepository.ul.ie/articles/journal_contribution/Are_electric_vehicles_riskier_A_comparative_study_of_driving_behaviour_and_insurance_claims_for_internal_combustion_engine_hybrid_and_electric_vehicles/26983711?file=49117249

[129] https://www.thatcham.org/report-highlights-risks-to-battery-electric-vehicle-adoption-if-repair-and-insurance-sector-concerns-are-not-addressed/

[130] https://www.irishtimes.com/motors/2024/09/10/are-evs-more-expensive-to-insure-than-other-cars/

Gigacasting as a result of damage to a part of it can lead to large costs for what might initially appear to be small damage.

**Costs of Insurance**

All of the above influences will impact the cost of claims and therefore the cost of insurance of EVs. Insurance broker Quote Devil claims that EVs are cheaper to insure than ICE vehicles[131], though there are various reports claiming otherwise – myenergi quote the average insurance premium for EVs as 13% higher than ICE cars, while a Swiss Re report quotes the average EV premiums are around double that of traditional ICE cars[132+133]. Improved data should lead to more accurate pricing with time, but this may take several years to establish.

[131] https://www.quotedevil.ie/news/are-hybrid-and-electric-cars-cheaper-to-insure

[132] https://www.myenergi.com/ie/guides/electric-car-insurance-ireland/

[133] https://www.swissre.com/institute/research/sigma-research/Economic-Insights/insuring-electric-vehicles.html

# 6. AI

## 6.1 Introduction

The insurance industry is undergoing a transformative shift driven by digital technologies, and at the forefront of this revolution is artificial intelligence (AI). AI's integration into insurance operations promises to enhance efficiency, reduce operational costs, improve customer experience, and provide more accurate data analysis and risk assessments. As insurers deal with vast amounts of data, AI offers powerful tools to analyse information, detect patterns, and make predictive decisions.

This section explores the key applications of AI in the insurance sector, implementational challenges, and its risks, and will also address the EU AI Act and its impacts on insurers.

## 6.2 Key Applications of AI in Insurance

AI is influencing many aspects for (re)insurers including underwriting, pricing, claims processing and fraud detection[134].

In terms of pricing, AI enables insurers to dynamically price their products and offer personalized premiums to customers. Through behavioural analysis, AI can evaluate driving habits for auto insurance or fitness data for health insurance, allowing for tailored premiums. This not only helps insurers price policies more competitively but also incentivises customers to adopt healthier lifestyles.

AI can revolutionize claims processing through automation, significantly reducing the time and cost involved. AI-powered tools can assess claims, detect inconsistencies or fraud, and settle straightforward claims. This automation speeds up the claims management process, minimizes errors, and reduces the potential for fraudulent claims.

By analysing large, complex datasets, AI can enhance the underwriting and risk assessment processes. It can help (re)insurers assess risk factors with greater precision by incorporating diverse data sources such as social media, IoT devices, and satellite imagery.

AI-driven chatbots and virtual assistants are becoming integral to the insurance customer service experience. These tools provide 24/7 support, answering customer queries, assisting with policy information, and guiding clients through claim submissions. Beyond customer service, AI enables personalization by analysing customer data to offer tailored product recommendations. Insurers can use AI to anticipate customer needs and provide personalized insurance solutions based on factors such as life stage, financial situation, and risk profile.

## 6.3 Risks associated with AI for insurers

Risk can arise from potential financial loss or adverse impacts due to errors or inaccuracies in AI models and methodologies. AI models, often complex and operating as “black boxes,” can introduce significant risk due to their lack of interpretability. This complexity makes it challenging for insurers to

[134] Insurance 2030—The impact of AI on the future of insurance | McKinsey

understand AI-driven decisions and identify sources of error or bias. Insufficient or biased data can lead to inaccurate predictions or decisions, resulting in financial losses or unfair treatment of policyholders[135].

As AI systems rely on large datasets, often involving personal data, data privacy and cyber security are critical concerns. Ensuring that AI models are secured to prevent unauthorized access and potential data breaches is crucial. Companies must align AI practices with internal policies and regulations such as the EU General Data Protection Regulation (GDPR).

Ethical risks may arise when AI models used for underwriting or claims processing reflect biases, leading to discriminatory outcomes. For example, AI pricing models might price policies differently for males and females if not trained to recognize regulations such as the EU Gender Directive. Lack of transparency in AI decision-making processes can also create ethical challenges, making it difficult for stakeholders to understand and contest decisions.

AI can also contribute to job displacement due to automation, increased dependency on technology, legal risks concerning liability for AI errors, and reputational risks from improper use of AI or inadequate security measures.

In summary, while AI offers transformative potential for the insurance sector, it also introduces a range of risks that must be carefully managed through robust governance frameworks, regulatory compliance, ethical considerations, and continuous monitoring.

## 6.4 Considerations for implementation of AI in organisations

To benefit the insurance industry and society, AI implementation must meet various governance, organizational, cultural and regulatory requirements. AI decisions must also be ethical, unbiased, and sustainable. Organisations should consider various aspects for leveraging AI responsibly for business purposes[136] .

It is important to recognize the limitations of AI. While AI can greatly improve efficiency and personalization, human intervention is still necessary in critical decisions to maintain digital trust and uphold ethical standards.

Investing in upskilling the workforce to use new analytics and AI technologies is crucial. This not only enhances productivity but also ensures employees are well-prepared to effectively utilize advanced technological tools.

To ensure the independent validation and adjustment of algorithms, organisations can establish an additional internal or external control function.

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[135] Introduction to artificial intelligence: What are the key risks for insurers to consider over the short to medium term

[136] How is AI used in business? | Swiss Re

Maintaining ongoing communication with stakeholders is necessary to adapt to the effects of AI on the insurance industry and society, addressing evolving needs and views.

Understanding how AI, when combined with human processes, positively impacts the value chain is essential. This includes increasing efficiency, enabling new solutions, and understanding the associated costs.

## 6.5 EU AI act

The EU AI Act is set to have a significant impact on the insurance sector by introducing a harmonized regulatory framework for AI technologies. One of the primary implications is the classification of AI systems used in insurance as high-risk[137]. These systems are considered high risk due to their potential significant impact on individuals' lives and livelihoods. Poorly designed or implemented AI systems can infringe on fundamental rights and cause issues like financial exclusion and discrimination[138].

The AI Act categorizes AI systems involved in health and life insurance pricing and underwriting as high-risk applications[139]. Insurance companies utilizing limited-risk AI systems, such as those for customer service, marketing, product development, or in areas other than life and health insurance, will need to offer transparent information and opt-out choices to their users. The Act clarifies that AI used for fraud detection and calculating capital requirements for credit institutions and (re)insurances is not considered high risk. However, it is crucial to ensure that AI applications in (re)insurance, particularly for underwriting and pricing in life, health, and personal lines of non-life insurance, adhere to the Act's prohibitions.

The EU's AI regulations will significantly impact insurers, requiring them to ensure greater transparency and explainability of their AI systems. Insurers must make their AI models interpretable and capable of providing clear explanations for decisions such as premium pricing and claims approvals. This will necessitate developing and deploying AI models that are not only accurate but also understandable to customers and regulators. Compliance with these requirements will likely involve additional costs and resources, including investments in technology, staff training, and possibly changes to existing AI systems.

Additionally, the EU's emphasis on data protection and privacy will substantially affect how insurers collect, store, and process customer data. Insurers must adhere to strict data governance practices to comply with the General Data Protection Regulation (GDPR) and other relevant data protection laws. This includes obtaining explicit customer consent for data usage, implementing robust cybersecurity measures, and ensuring data minimization and anonymization where possible. While these measures aim to protect consumers, they also present operational challenges for insurers, who must balance regulatory compliance with leveraging data for AI-driven insights and efficiencies.

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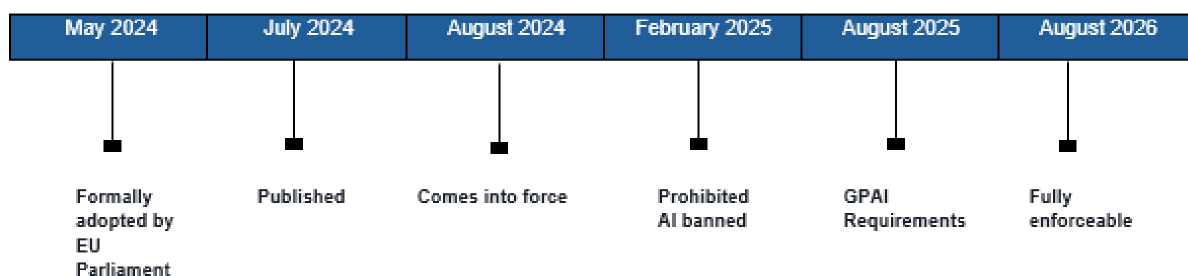
[137] EU AI Act: first regulation on artificial intelligence | Topics | European Parliament
[138] Introduction to artificial intelligence: What are the key risks for insurers to consider over the short to medium term
[139] The AI-Act’s impact on insurance

Overall, the EU's AI regulations will drive insurers towards more ethical and transparent AI use, fostering greater trust among consumers and stakeholders. However, achieving compliance will require significant effort and investment, potentially reshaping how insurers develop and deploy AI technologies in their operations.

The EU AI Act will significantly impact insurers, with key compliance deadlines approaching over the next few years. The timeline for the rollout is as follows:

- February 2, 2025: AI systems with “unacceptable risk” are prohibited.
- August 2, 2025: General Purpose AI (GPAI) becomes regulated.
- August 2, 2026: High-risk AI systems, such as those used in pricing and underwriting for health and life insurance, must comply with the regulations




## 6.6 Conclusion

The integration of AI into the insurance sector presents both significant opportunities and notable challenges. AI technologies, such as machine learning and predictive analytics, have the potential to revolutionize the industry by enhancing risk assessment, improving customer service, and streamlining claims processing. These advancements can lead to more efficient operations and a better customer experience.

However, the adoption of AI also brings inherent risks, including ethical concerns, data privacy issues, and the potential for algorithmic bias. Insurers must navigate these risks carefully to ensure that AI applications do not undermine trust or lead to unfair practices. It is crucial for insurers to implement robust governance frameworks and transparency measures to mitigate these risks.

In response to these concerns, regulatory measures such as the European Union’s AI Act aim to impose stricter controls on high-risk AI systems, including those used in the insurance industry. This Act, which categorizes AI applications by risk and introduces compliance obligations, has direct implications for insurers, potentially increasing operational costs and requiring greater transparency in AI processes. These requirements aim to protect consumers by mandating robust risk management and transparency measures for high-stakes AI applications in the sector. While these regulations may initially burden insurers with compliance challenges, they also create an opportunity for the sector to establish trust with consumers, ensuring that AI is used ethically and responsibly.

In summary, AI holds vast potential to reshape the insurance industry, but its adoption necessitates careful consideration of ethical and regulatory concerns. For insurers, balancing innovation with regulatory compliance will be key to navigating this evolving landscape. Moving forward, it will be essential for insurers to adopt proactive risk management strategies, adhere to emerging regulatory

frameworks, and continuously assess AI systems to maintain both operational efficiency and public trust. By doing so, insurers can harness AI's benefits while safeguarding against its potential risks, paving the way for a sustainable and responsible digital transformation.

# 7. Regulation

## 7.1 Climate Change and Sustainability

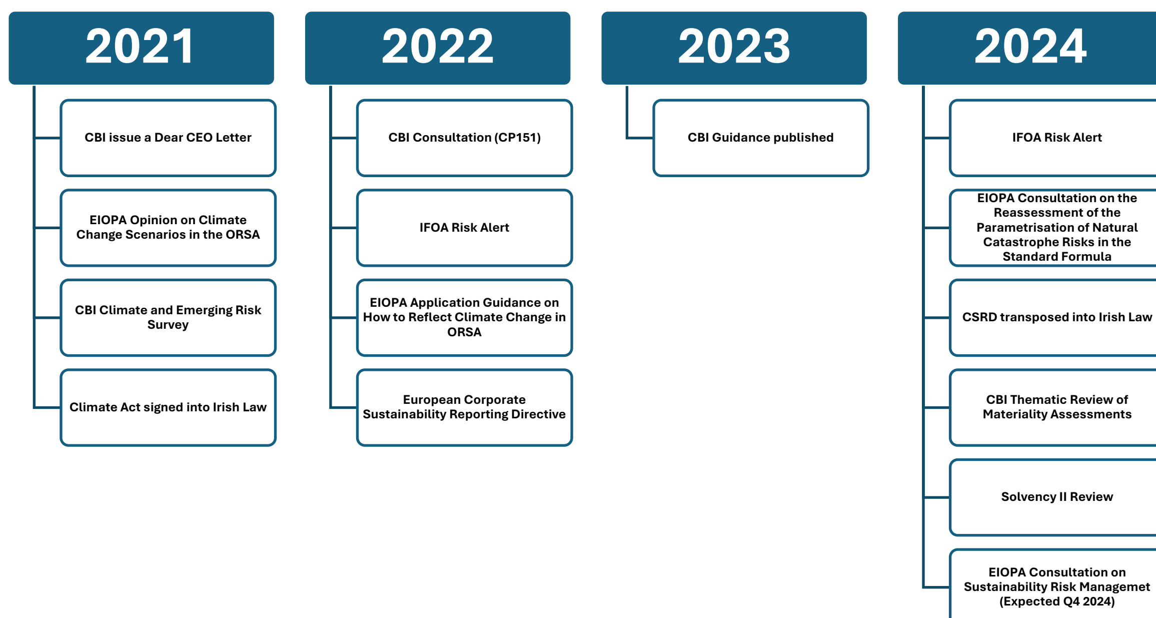
INTRODUCTION

Climate risk has long been on the radars of (re)insurers, but recent regulatory developments have brought it to the fore of our industry's priorities. As regulations and requirements surrounding climate risk and sustainability continue to evolve, both insurers and regulators face a variety of uncertainties and challenges. The urgency to address these issues has never been greater, as the increasing frequency of extreme weather events emphasises the immediate and direct impact of climate-related risks on the insurance sector.

When you start to research climate change and sustainability it can be somewhat overwhelming, there are plethora of acronyms, organisations, science findings, guidance, regulations and initiatives. It's an ongoing problem on a global scale. It's hard to get your head around this concept and then you have the added complexity of thinking how does it impact my business. There are a variety of areas that companies should consider the impact of climate change on, such as regulatory, financial impacts and corporate responsibility. In addition to this, there are increasing societal expectations for companies to follow green initiatives. As Actuaries, we naturally focus on the probability and impact of risk exposures and when it comes to climate risks there are so many various complexities that we need to consider. When it comes to climate change and sustainability, it is vital to appreciate interconnectedness of risks.

In the last Current Topics paper of 2022, our fellow recent qualifiers explored the initial regulatory responses and industry adaptations to climate risk. Since then, significant advancements have been made in the regulatory landscape, with new guidelines and expectations being established to better manage and mitigate these risks. As the regulatory environment continues to evolve, (re)insurers must remain agile, proactive, and committed to integrating climate risk into every part of their operations, ensuring resilience and sustainability in an increasingly uncertain world. The below timeline (Figure 15) demonstrates the progression of key regulations surrounding climate risk and sustainability over recent years in Ireland and wider afield (note it is not an exhaustive list of all regulatory developments in this space). Throughout this section, I will explore the developments of the regulations and guidance issued by supervisors relating to climate risk and sustainability issues since the previous current topics paper.

Figure 15 Timeline of key climate change regulatory updates impacting the insurance industry




## LOCAL REGULATORY LANDSCAPE

We will begin by examining the local regulatory landscape, highlighting the Central Bank of Ireland's ("CBI") initiatives and the key areas of focus outlined in their communications. In November 2021, the CBI issued a 'Dear CEO' letter to all Chairs and CEOs of regulated financial undertakings, including (re)insurers. In this letter, they set out their expectations with respect to climate risk management focusing on five key areas:

1. Governance
2. Risk Management Framework
3. Scenario Analysis
4. Strategy and business model risk
5. Disclosures

Following on from this, the CBI later launched a consultation (CP151) on Guidance for (Re)Insurance Undertakings on Climate Change Risk[140] in August 2022. In this paper, they requested a public consultation on their proposals to introduce guidance on climate change risks for the insurance sector. This paper was prompted by the EIOPA's opinion on climate risk in the ORSAs. The CBI outlines how clear the evidence is related to climate change, in particular they note the Intergovernmental Panel on Climate Change ("IPCC") 6th Assessment Report which was published in April 2022. It states that "in 2010 – 2019 average annual global greenhouse gas emissions were at their highest levels in human history…without immediate and deep emissions reductions across all sectors, limiting global warming to 1.5 degrees C is beyond reach". The consultation was followed up by guidance[141], which was later published in 2023, to clarify their expectations and to support firms in how they manage climate risk within their business.

[140] Consultation Paper 151 - Climate Change Guidance for (Re) insurers
[141] Guidance for (Re)Insurance Undertakings on Climate Change Risk

The CBI outlines how they expect (re)insurers to consider the following principles when assessing and managing their climate change related risks:

- To take an iterative approach to managing climate change risks
- To consider climate change risk as a key risk instead of emerging risk
- To perform a double materiality assessment
- Role of the ORSA
- To consider climate change over a variety of time horizons
- Group engagement

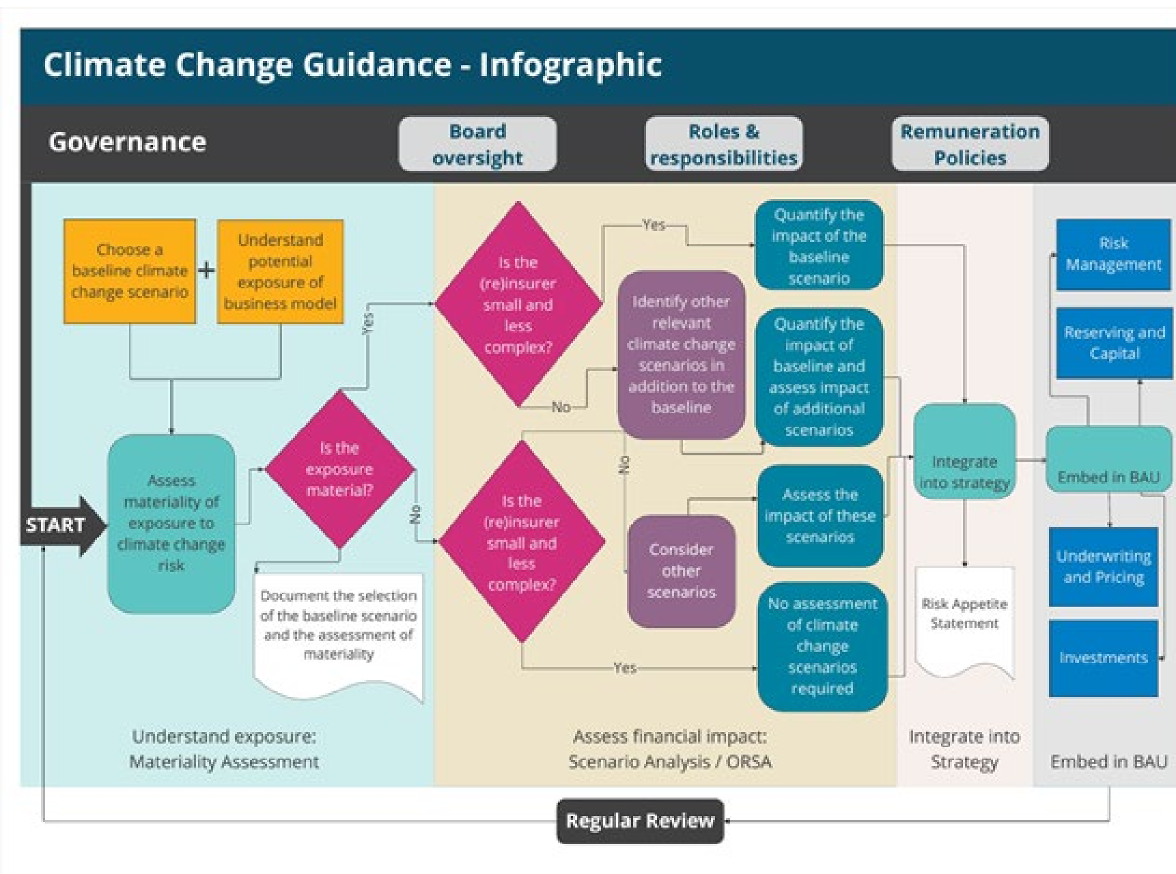
One of the key sentiments from the CBI in their guidance is that climate change risk is no longer an emerging risk for (re)insurers as the increasing frequency of extreme weather events demonstrates the immediate impact of climate-related risks on the insurance industry. Throughout the guidance, the CBI stresses the urgency of addressing climate change risk and the increasing need for insurers to act now. The guidance outlines the CBI's expectations, including conducting materiality assessments, scenario analysis and ORSA considerations. They also expect firms to integrate climate risk considerations into their day-to-day operations.

In setting out these expectations, the CBI acknowledges the challenges of the evolving nature of climate risk. However, evolving risks and their management should not be unfamiliar to insurers. The principles of Enterprise Risk Management require firms to consider an iterative approach to risk management with the framework continuously evolving through a feedback loop. The CBI puts an emphasis on the iterative nature of climate risk management. They highlight the critical role of governance and oversight, urging boards and senior management to integrate climate risk into business strategies and decision-making processes. Additionally, the guidance underscores the need for active engagement with stakeholders, including policyholders and investors, to enhance transparency and accountability in managing climate risks. In order to build internal capacity, firms are encouraged to implement training and development programs focused on climate risk.

As with any risk management framework, climate risk should be managed holistically. Climate risk materiality assessments should feed into the scenario analysis and ORSA process. Scenario analysis should influence the (re)insurers strategy and risk appetite which should then feed into how the business runs day to day. The CBI highlights the importance of transparent disclosure and regular reporting of climate-related risks and opportunities, aligning with international standards such as those set by the Task Force on Climate-related Financial Disclosures ("TCFD").

The CBI has designed the below infographic (Figure 16) to help (re)insurers assess and manage their climate risk exposure. One thing to note here is the inclusion of the regular review feedback loop, emphasising the CBI's expectation of a constantly evolving risk management strategy.

Figure 16 The CBI's Climate Change Guidance




In February 2024, the CBI communicated through their Regulatory & Supervisory Outlook Report, that the double materiality assessments were going to be a supervisory focus in 2024. Late in September 2024, the CBI published their quarterly insurance newsletter[142] outlining the result of their thematic review of 29 firms' climate risk materiality assessments. The CBI emphasised and acknowledged the efforts companies have made to integrate climate change into the day-to-day activities of their business. Strong assessments included companies that had a clearly defined baseline scenario, completed a broad analysis of climate risk over all time horizons and had clear conclusions on climate risk materiality. While many firms have made commendable strides, the need for a baseline scenario in materiality assessments remains a critical area for improvement. Although, defining a baseline scenario is one of the key requirements of the guidance, the CBI noted that only 76% of firms reviewed included one in their materiality assessments. The CBI stressed their expectations to see iterative improvements in companies' climate materiality assessments and encouraged companies to continue to build their capacity, expertise, and experience.

UNITED KINGDOM

Climate change and sustainability is also at the fore for regulators and professional bodies in the United Kingdom ("UK"). As well as publishing ethical and professional guidance on climate change for members, the Institute and Faculty of Actuaries ("IFOA") published a risk alert relating to climate change scenario analysis in June 2024[143]. This builds on the risk alert that they previously published

[142] Insurance Newsletter - September 2024
[143] risk-alert-climate-change-scenario-analysis.pdf

on climate change and sustainability issues in 2022[144] and the work the IFOA have been doing with the University of Exeter under which they have jointly published two papers: "Emperor's New Climate Scenarios" and "Climate Scorpion – the sting is in the tail".

One of the key themes shared by this risk alert and the more recent paper co-authored by the IFOA and the University of Exeter is that the insurance industry does not have extreme climate events in the data being used to calibrate the models that are used to understand the financial impact of climate risk. This in turn leads to the risk of systematic underestimation of climate related risks. It is vital for actuaries to properly inform users of these models, their outputs and any climate related disclosures so that they are aware of their limitations and likely underestimation.

In this alert the IFOA outlines their key requirements for actuaries:

1. Ensure scenarios are appropriate for the objective.
2. Understand where the scenarios lie on the distribution.
3. Explore key assumptions and weaknesses.
4. Appropriately communicate limitations.
5. Do their best to make sure that if results are communicated beyond their advice that these limitations are not lost in translation.

INTERNATIONAL REGULATORY LANDSCAPE

As we see more and more extreme weather events occurring on our planet and increased requirements from regulators are employed, there is an increasing urgency around climate change and managing the risk associated with it. This is especially the case in 2024 due to EIOPA requirements being introduced through the Solvency II Review and European Union requirements coming into force for year-end 2024 reporting.

In January 2024, the European Council and the European Parliament published their agreed set of changes to conclude the Solvency II review[145]. In this agreement there are some additional requirements and considerations for insurers with an emphasis on sustainability and climate related risks.

The additional Pillar 2 requirements aim to enhance the management of sustainability and climate risks within the insurance sector. For sustainability, (re)insurers will now be required to develop and monitor the implementation of their plans, targets, and processes to manage sustainability risks effectively. EIOPA is set to develop regulatory standards to ensure a standardised approach to these efforts. Additionally, (re)insurers must disclose their sustainability targets annually and consider the long-term impact of sustainability on their investments, incorporating sustainability factors into their investment strategies. EIOPA have indicated that they expect to launch a consultation during Q4 2024 regarding Sustainability Risk Management Plans as well as additional consultations related to climate change at a later date.

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[144] 2022-climate-change-and-sustainability-risk-alert-final.pdf

[145] Amendments to the Solvency II Directive

There are also additional requirements with a climate change focus. (Re)insurers are required to assess whether they have material exposure to climate risks – this is aligned with the CBI's Guidance in Ireland. If such exposure is identified, they must specify at least two long-term climate change scenarios: one where the global temperature increase remains below 2 degrees Celsius, and another where it is significantly higher than 2 degrees Celsius. These scenarios must be reviewed and updated at least every three years. This highlights the importance of continuously adapting to the evolving landscape of climate change and ensuring robust risk management practices.

The Corporate Sustainability Reporting Directive ("CSRD") is a European Union requirement aimed at enhancing and standardising reporting across companies in all industries inclusive of the (re)insurance and financial industries. These reporting requirements are underpinned by the European Sustainability Reporting Standards ("ESRS") reporting framework. Under the CSRD, companies must disclose material Environmental, Social, and Governance ("ESG") impacts, risks, and opportunities across their value chains. These disclosures must include not only report historical performance but also forward-looking targets. The directive is aligned with the EU taxonomy for sustainable activities, ensuring consistency with broader EU sustainability goals.

One of the more challenging requirements of the CSRD initiative is the Double Materiality Assessment ("DMA"), which requires firms to evaluate both the impact on stakeholders and society (inside out) and the financial risks and opportunities to the company (outside in). The DMA requires a company to identify all material ESG impacts, risks and opportunities ("IROs") across their value chain. Additionally, the CSRD mandates independent assurance of reported information and assigns specific responsibilities to audit committees to oversee these disclosures. Actuaries will play a vital role in these assessments due to their expertise in assessing risks, opportunities, and financial impacts on various aspects of the business. As a multi-disciplinary profession, actuaries can leverage their skills to contribute to climate-related disclosures and implement TCFD recommendations, such as conducting scenario analyses to identify risk exposure and potential mitigation measures.

Companies need to understand the processes and data that they will require for such reporting. Many might view CSRD as a risk due to additional reporting requirements and resources required to produce these data reports however there is also an opportunity to be seized with this exercise. Companies will gain in depth knowledge of their value chain. This could result in (re)insurers being better able to innovate and develop new products, which can sometimes be a cumbersome task.

At the time of writing this paper, there are still some uncertainties surrounding the reporting and adaptation timelines for Irish firms[146]. CSRD was transposed into Irish Law in July 2024. This made Ireland one of the first countries to adopt these regulations in Europe. In writing this directive into Irish law, the Irish Government made all insurance companies in scope for year-end 2024. This is due to the term 'applicable company' and how it is defined under Irish Regulations. As a result of this definition, all insurance undertakings in Ireland are required to begin reporting from year-end 2024. This significantly speeds up the reporting process and time of adaptation for Irish companies. Discussions are still ongoing around these requirements and how they apply in Ireland and so there may be amendments in the coming weeks.

[146] CSRD: Transposition into Irish Law - Arthur Cox LLP

CHALLENGES FOR INSURERS

The challenges of climate change and sustainability to (re)insurers are numerous. The challenges associated with new regulatory and reporting requirements ultimately come down to the data we have versus the data we need. We need data to monitor the risk and to produce the regulatory reporting requirements that we previously haven't collected. This is going to be a huge challenge for undertakings as deadlines approach. There is a dispersion of regulation as can be seen from the previous sections which can also pose challenges. A change in mentality is required, undertakings need to realise that climate risks are financial risks to the company and not just a part of public relations and corporate social responsibility initiatives. Additionally, with increased disclosure requirements companies will need to appreciate the additional reputational risks associated. Managing these additional risks due to greenwashing and potential reputational damage, further complicates any efforts to maintain trust and integrity with current and potential policyholders.

(Re)Insurers face significant challenges looking to the future due to the high levels of uncertainty surrounding climate change and sustainability issues. This will pose difficulties to firms with getting up to speed with new regulations, embedding a consistent risk management culture across their organisations and implementing a comprehensive climate and sustainability strategy. In addition, concerns are increasing with regard to biodiversity and nature related risks and there is a strong corelation between these risks and climate related risks. This is an emerging risk exposure that the industry will also need to understand.

CONCLUSION

In conclusion, the landscape of climate risk and sustainability for (re)insurers has evolved significantly, driven by regulatory advancements and an increasing recognition of the immediate impacts of climate-related risks. The CBI has been at the forefront of this evolution, issuing comprehensive guidance and setting clear expectations for firms to integrate climate risk into their governance, risk management frameworks, and strategic planning. The iterative nature of climate risk management, as emphasised by the CBI, underscores the necessity for continuous adaptation and robust oversight. Internationally, the regulatory landscape is similarly dynamic, with the IFOA issuing risk alerts and the EU's CSRD and Solvency II review introducing additional requirements for sustainability and climate risk disclosures. These developments reflect a growing consensus on the need for transparency, accountability, and proactive management of climate risks. As actuaries, we must continue to enhance their expertise, engage with stakeholders, and contribute to the development of robust, forward-looking risk management practices. The actuarial skillset is well suited to helping understand the climate change risk due to actuaries' ability to work with uncertainty and analysis long term risks.

## 7.2 Consumer Protection Code

### Background

The Consumer Protection Code "the Code" (CPC) is a key component of the Irish financial regulatory framework. The Central Bank of Ireland (CBI) has continued to update the Code since it was introduced, ensuring it continues to be suitable and effective for its intended purpose.

A brief historical evolution of consumer protection regulation in Ireland as it applies to insurers:

- **2006 Introduction of the CPC**: Establishment of foundational principles.

- **2012 Major Revision of the CPC**: Enhanced protections for vulnerable consumers, stricter rules against mis-selling, improved transparency, and the introduction of complaint-handling procedures.
- **2016**: EIOPA published preparatory guidelines on product oversight and governance arrangements by insurance undertakings and distributors.
- **2017**: Introduction of the CBI's Consumer Protection Risk Assessment (CPRA) establishing a new and more intrusive approach for supervisory assessments of regulated firms in relation to conduct and consumer protection risk management.
- **2018**: Transposition of the EU's Insurance Distribution Directive (IDD) in Ireland with an emphasis on product governance, cross-selling, and conflict of interest management.
- **2022**: The ban on "price walking" in insurance pricing practices for home and motor insurance, resulting from the CBI's Differential Pricing Review.

The CBI is currently reviewing the Code following its publication of Consultation Paper "CP158". [147] The purpose of the CBI's latest review is to deliver an updated and modernised Consumer Protection Code which is centred around firms securing customers' interests. This is deemed key to delivering positive consumer outcomes.

The CBI is also proposing a targeted package of protections that reflects how consumers are accessing financial services today.

Furthermore, the CBI seeks to enhance accessibility of the Code to support consumers, users and firms in navigating the information they need through the use of digital tools, explainers and guides.
The consultation period was open for 3 months and closed on 7 June 2024. The Society of Actuaries in Ireland made a submission[148] focussing its comments on the topics likely to impact insurance businesses.

CBI Proposals

Prior to the publication of CP158, the CBI issued a CPC review discussion paper in 2022[149]. This initiated a broad public dialogue on consumer protection issues, supported by research, an online survey, and extensive engagement with stakeholders. The diverse feedback the CBI received deepened its understanding of the issues, and it has been a key input into its policy considerations, which are reflected in the proposals set out in CP158.

The General Principles and Requirements of the existing CPC will remain its foundation. The CBI is seeking to offer greater clarity for firms regarding their consumer protection responsibilities by reorienting and more clearly defining several key obligations, including Securing Customers' Interests.

[147] https://www.centralbank.ie/docs/default-source/publications/consultation-papers/cp158/cp158-consultation-paper-consumer-protection-code.pdf?sfvrsn=45d631a_5
[148] SAI response to CPC Consultation Paper_Final.pdf
[149] https://www.centralbank.ie/docs/default-source/regulation/consumer-protection/other-codes-of-conduct/consumer-protection-code-review/consumer-protection-code-review-discussion-paper.pdf?sfvrsn=f75c951d_12

The introduction of Securing Customers' Interests is not intended to impose new or broader customer best-interest obligations on firms; instead, it aims to give firms and their customers greater clarity and consistency on existing requirements, supporting more effective implementation.

The CBI is also proposing a targeted package of new measures, as firms and consumers navigate financial services transformation including in areas such as digitalisation and climate change.

Further details on the CBI's Principle Policy Proposals in these areas are summarised below.

1. **Securing Customer Interests**: Emphasises that companies should incorporate customer interests into their culture and decision-making, ensuring that business strategies prioritise consumer welfare. To help firms to embed securing customer interests, the CBI has drafted detailed Guidance on Securing Customers' Interests[150]. This guidance covers the need for firms to reflect a consumer focus in their culture, strategy, business model, decision-making, systems, controls, policies, processes and procedures.
2. **Digitalisation**: Proposes measures to ensure that digital financial services are accessible, secure, and transparent, protecting consumers in an evolving digital environment.
3. **Informing Effectively**: Aims to improve the clarity and understanding of information provided to consumers, enabling them to make informed decisions about financial products and services.
4. **Mortgage Credit and Provider Switching**: Introduces proposals to facilitate the mortgage switching process, promoting competition and offering consumers better options.
5. **Unregulated Activities**: Addresses risks associated with unregulated financial activities, proposing measures to protect consumers from possible fraud or malpractice.
6. **Fraud and Scams**: Emphasises the need for companies to implement robust systems to detect and prevent fraud, thus protecting consumers from fraudulent activities.
7. **Protecting Consumers in Vulnerable Circumstances**: Proposes guidelines[151] for companies to identify and support consumers in vulnerable situations, ensuring fair and appropriate treatment.
8. **Climate Risk**: Recognises the importance of considering climate risks in the provision of financial services, promoting sustainable and responsible practices.

The CBI is also proposing a number of new and enhanced requirements in the areas of consumer credit, SME protections, insurance, and investments and pensions. Specific items of interest include the following:

- Automatic Renewal of Insurance Policies

  It is proposed that explicit opt-in for automatic renewal will apply in respect of gadget insurance, travel insurance, dental insurance and pet insurance policies. In the case of home, motor, and health insurance, it is considered that the potential consequences for consumers should they find themselves without insurance due to a lapse in policy cover, outweigh any potential benefits of requiring opt-in for automatic renewal.

- Insurance Switching

[150] https://www.centralbank.ie/docs/default-source/regulation/consumer-protection/other-codes-of-conduct/consumer-protection-code-review/securing-customers-interests-guidance.pdf?sfvrsn=955d631a_3

[151] https://www.centralbank.ie/docs/default-source/regulation/consumer-protection/other-codes-of-conduct/consumer-protection-code-review/guidance-on-protecting-consumers-in-vulnerable-circumstances.pdf?sfvrsn=d55f631a_1

In addition to the current 'renewal notice' issued to holders of non-life insurance policies 20 days before their renewal date, it is proposed that an extra 'pre-renewal' notification will now be required for consumers, issued 20 days before the 'renewal notice'. This additional notification is intended to give consumers more time to explore their options, ask questions, and potentially find a product or provider that better suits their needs.

- Investments and Pensions

Acknowledging the importance of consumers regularly reviewing their products, the CBI is proposing to enhance current requirements in the revised Code. This will ensure that firms remind customers of the need to assess the ongoing suitability of their investment and pension products at the time of purchase and in annual statements. Importantly, if a firm does not offer ongoing suitability assessments, it will be required to inform the customer of the reasons for this.

- Handling of Errors and Complaints

A new requirement is being proposed that mandates firms to implement a system for tracking and managing complaints. Firms will be obligated to review errors and complaints regularly, at least every six months, in order to identify and promptly address trends or other potential issues. Additionally, firms will be required to display their complaints procedure on all digital platforms they operate

- Record Keeping by Firms

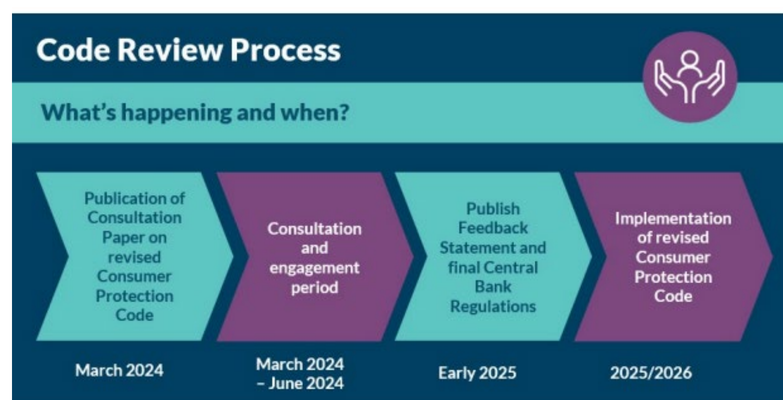
In cases where the consumer does not become a formal client of the firm, it is proposed that the firm will be required to retain these records for no more than 12 months, a reduction from the six-year requirement under the existing Code.

## Implementation

The CBI proposes a 12-month period for implementation, starting from the date of publication of the finalised revised Code expected in early 2025.

Figure 17 shows the implementation timeline of the new requirements.

Figure 17[152]




[152] https://www.centralbank.ie/regulation/consumer-protection/consumer-protection-codes-regulations/consumer-protection-code-review

## 7.3 Digital Operational Resilience Act

The Digital Operational Resilience Act (DORA) is a key piece of European legislation designed to strengthen the financial sector's ability to withstand and recover from Information and Communication Technology (ICT) related risks, such as cyber-attacks and system failures. With increasing reliance on digital systems, the Act seeks to standardise ICT risk management and enhance resilience across all financial entities within the European Union, including Ireland. DORA is part of the broader Digital Finance Package, which aims to address the growing digital threats facing the financial industry. This section outlines the background of DORA, details the key pillars, and explores the potential impacts it will have on insurance companies in Ireland.

**Background of DORA**

Adopted in January 2023, DORA will apply from 17 January 2025 and will be mandatory for all financial institutions, including insurance companies, banks, payment service providers, and investment firms across the EU. DORA was introduced in response to the increasing threat posed by cyber-attacks, as well as the growing reliance on ICT systems within financial services. The overarching goal of DORA is to ensure financial institutions can continue operating during significant ICT disruptions while enhancing their resilience against digital risks.

DORA was developed to address the vulnerabilities exposed during the COVID-19 pandemic, which accelerated the adoption of digital systems across all sectors. With more financial activities taking place online, including within the insurance industry, DORA establishes clear rules for managing ICT risks, reporting incidents, conducting resilience tests, and overseeing third-party service providers, thus creating a standardised framework to ensure operational continuity.

**Key Pillars of DORA**

DORA is structured around five key pillars, designed to build and maintain digital operational resilience across the EU financial sector:

1. **ICT Risk Management**:
    - DORA mandates that all financial institutions, including insurers, put in place robust ICT risk management frameworks. These frameworks must enable institutions to identify, assess, mitigate, and monitor risks that could compromise their operational resilience. Senior management will be responsible for overseeing these frameworks and ensuring they are aligned with the overall governance structure of the company.
2. **Incident Reporting**:
    - DORA introduces strict requirements for reporting major ICT-related incidents to national competent authorities (NCAs). Irish insurers will be required to report significant incidents within 24 hours of detection, with follow-up reports detailing the progression and resolution of the incident.
    - Incidents must be classified based on their severity, with categories such as financial loss, operational impact, and potential harm to customers.
3. **Operational Resilience Testing**:
    - DORA requires that financial institutions, including insurers, regularly test their ICT systems to assess their resilience. Larger or systemically important firms will need to

    - conduct Threat-Led Penetration Testing (TLPT), simulating sophisticated cyber-attacks to uncover vulnerabilities.
    - Smaller institutions, while also required to conduct regular resilience testing, will face fewer burdens than their larger counterparts.
4. **Third-Party Risk Management**:
    - DORA places stringent oversight on third-party ICT service providers, which many insurers rely on for their digital infrastructure. Insurers must ensure that these providers meet the same standards for operational resilience, with regular audits and monitoring.
    - Contracts with third-party providers must include clauses that allow for performance monitoring and auditing, along with provisions for managing service disruptions.
5. **Information Sharing**:
    - DORA encourages financial entities to share information on cyber threats, vulnerabilities, and best practices with their peers and regulators, promoting collective resilience across the entire financial sector.

**Impact on Irish Insurance Companies**

DORA's implementation will significantly impact Irish insurers, requiring them to adapt their ICT risk management practices, operational resilience strategies, and oversight of third-party providers:

1. **ICT Risk Management**:
    - Irish insurers will need to strengthen their ICT risk management frameworks to align with DORA. This will likely involve investments in new technology, the recruitment of cybersecurity specialists, and the establishment of governance structures that involve senior management in overseeing ICT risks.
2. **Increased Operational Costs**:
    - Compliance with DORA's requirements for regular operational resilience testing, incident reporting, and third-party monitoring will lead to increased operational costs. Insurers must allocate resources to ensure their ICT systems are resilient and able to withstand potential disruptions.
    - Contracts with third-party providers may need to be revised to include provisions for audits and the continuous monitoring of performance.
3. **Resilience Testing**:
    - Larger Irish insurers will be required to undergo Threat-Led Penetration Testing (TLPT), simulating cyber-attacks to assess vulnerabilities. Smaller insurers, while still required to conduct regular resilience testing, will face fewer obligations due to DORA's proportionality principles.
4. **Third-Party Oversight**:
    - Insurers will need to enhance their oversight of third-party ICT providers, ensuring compliance with DORA's requirements. The introduction of ICT outsourcing registers will enable Irish insurers to better track and manage their relationships with external service providers, ensuring that critical services are protected.

DORA marks a significant shift in the regulatory landscape for Irish insurers, introducing stringent requirements for managing ICT risks, reporting incidents, and overseeing third-party providers. With the compliance deadline set for January 2025, Irish insurers must act now to ensure they are prepared to meet these new standards. While DORA's requirements may increase operational costs, they also offer an opportunity for insurers to strengthen their digital resilience, ultimately safeguarding their operations and protecting customers in an increasingly digitalised world.