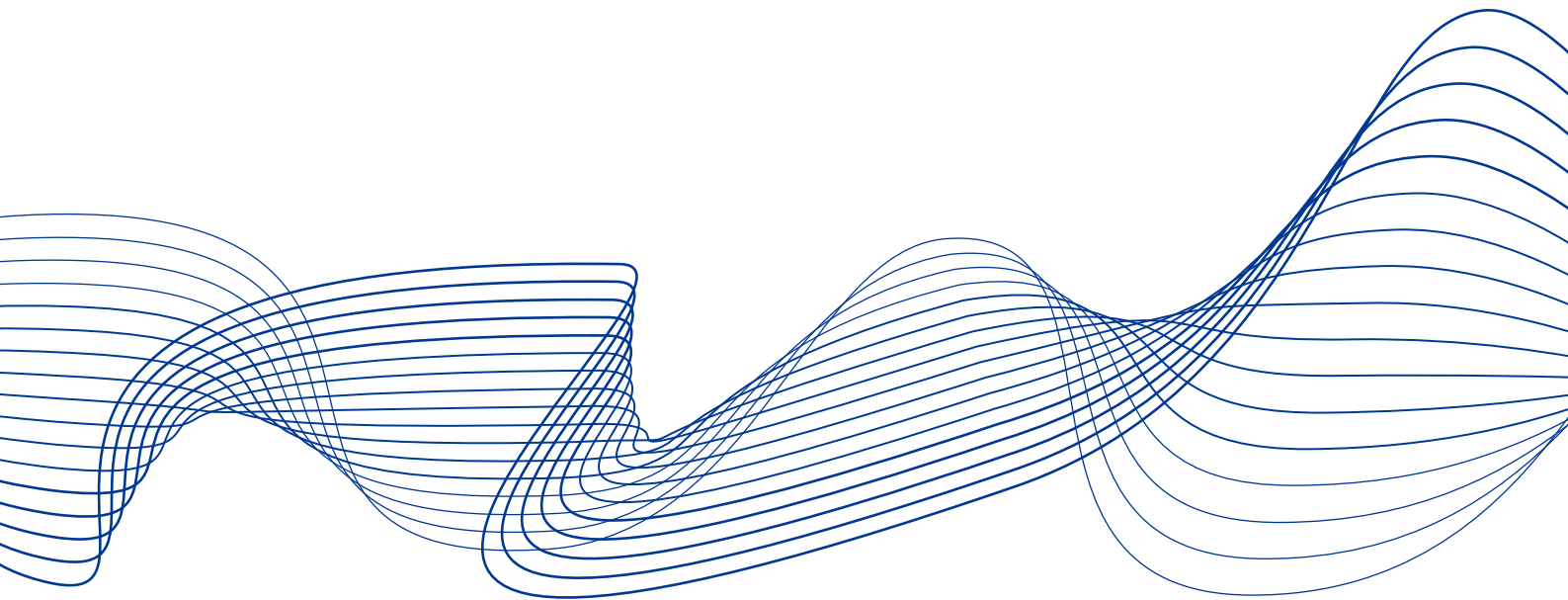


**Financial stability
implications of IFRS 17
Insurance Contracts**

December 2021



ESRB
European Systemic Risk Board
European System of Financial Supervision

Contents

Executive summary	2
1 Introduction	6
2 Assessment of IFRS 17 from a financial stability perspective	11
2.1 Accounting and financial stability	11
2.2 IFRS 17 and financial stability	14
2.3 Issues around first-time implementation	20
3 Relevant areas for financial stability	24
3.1 Discount rates	24
Box 1 Estimating discount rates according to the two methods in IFRS 17	25
3.2 Onerous contracts, annual cohorts and risk adjustment	30
Box 2 A stylised example of the application of annual cohorts to intergenerationally-mutualised contracts	38
3.3 Interaction with IFRS 9	43
3.4 Reinsurance	45
4 Conclusions and policy considerations	50
References	54
Annex A. Short summary of IFRS 17	58
Annex B. Additional information on the stylised example of the application of annual cohorts to intergenerationally-mutualised contracts	61
Imprint and acknowledgements	66



Executive summary

International Financial Reporting Standard (IFRS) 17 Insurance Contracts (“IFRS 17”) is the accounting standard for insurance contracts prepared by the International Accounting Standards Board (IASB) and replaces IFRS 4 Insurance Contracts (“IFRS 4”). IFRS 17 is aimed at enabling market participants to assess the financial position, performance and risk exposures of insurers and compare them across countries and sectors. Amendments to IFRS 17 were issued in June 2020, including a deferral of its effective date by two years. Consequently, IFRS 17 is required to be applied in financial statements for annual reporting periods starting on or after 1 January 2023. Insurance corporations have the option not to apply IFRS 9 Financial Instruments (“IFRS 9”) until IFRS 17 enters into force.

The EU endorsement procedure for IFRS 17, which was suspended in 2019 when the IASB announced its intention to introduce limited amendments to IFRS 17, has recently been finalised, including an optional exemption from the annual cohort requirement for a specified set of insurance contracts.¹ IFRS 17 will be applied by a subpopulation of mainly large EU insurance corporations, as, depending on the national implementation of the International Accounting Standards (IAS) Regulation², the requirement to apply IFRS is often only mandatory for the consolidated financial statements of listed insurance corporations.

In accordance with a resolution of the European Parliament,³ this report assesses the financial stability implications of IFRS 17, considering the text of the standard as issued by the IASB in May 2017 and amended in June 2020.

In the aftermath of the global financial crisis, European authorities have undertaken a significant effort to identify the sources of systemic risk from the insurance sector (European Insurance and Occupational Pensions Authority, 2017 and 2018b; European Systemic Risk Board, 2015 and 2018). As such, four possible channels through which the insurance sector could create or amplify systemic risk have been identified: (i) critical services and activities; (ii) procyclical behaviour and excessive risk-taking; (iii) interconnections with other financial intermediaries; and (iv) common vulnerabilities to macroeconomic factors (including a low interest rate environment).

IFRS 17 predominantly interacts with these four channels through the transparency channel of accounting. Transparency enables users of financial statements to make informed decisions of an

¹ The Regulation adopted by the European Commission to implement IFRS 17 in the EU contains an optional exemption from applying the annual cohort requirement (while disclosing the fact when doing so) to intergenerationally-mutualised and cash-flow matched contracts. See [Commission Regulation \(EU\) 2021/2036 of 19 November 2021 amending Regulation \(EC\) No 1126/2008 adopting certain international accounting standards in accordance with Regulation \(EC\) No 1606/2002 of the European Parliament and of the Council as regards International Financial Reporting Standard 17](#).

² [Regulation \(EC\) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards \(OJ L 243, 11.9.2002, p. 1\)](#).

³ See [European Parliament resolution of 3 October 2018 on International Financial Reporting Standards: IFRS 17 Insurance Contracts \(2018/2689\(RSP\)\)](#).



economic nature, discourages economic agents (i.e. the reporting entities) from engaging in risky behaviours and transactions, and supports internal and external decision-making processes. These are all beneficial to financial stability.

IFRS 17 is expected to make a substantial contribution to financial stability by promoting internationally comparable accounting practices and by increasing transparency in the insurance sector. IFRS 17 sets out a comprehensive framework for the accounting of insurance liabilities and should contribute to providing a fair view of the financial position and performance of insurance corporations.

However, the ESRB would also like to note the following:

1. IFRS 17 allows two methods (bottom-up and top-down) to calculate discount rates which, in turn, determine the ultimate amount of insurance contract liabilities. In practice, the bottom-up and top-down methods may result in different discount rates. Furthermore, IFRS 17 is going to be applied in an environment of low interest rates, with increased importance of unobservable components (expected and unexpected credit losses, as well as an illiquidity premium). Together with the level of discretion in the requirements of IFRS 17, the behavioural response of insurers may have consequences for financial stability, mainly as a result of large cross-sectoral heterogeneity in the computation of discount rates and ultimately in the valuation of insurance liabilities.
2. The most controversial aspect of the implementation of IFRS 17 relates to the annual cohort requirement, which is also related to how onerous contracts are accounted for. A measurement model for insurance contracts should capture adequately and in a timely manner the effect on profitability of situations in which high minimum guarantees are confronted with relatively low market yields from underlying assets (European Insurance and Occupational Pensions Authority, 2020; European Systemic Risk Board, 2021). Moreover, the implications of the current absence of a common accounting standard for accurately measuring the profitability of insurance contracts also need to be taken into consideration. The annual cohort requirement stipulates that contracts with similar characteristics should be grouped together and allocated to cohorts that are issued within one year of each other. However, when applied to some legacy profit-sharing arrangements and contracts managed under cash-flow matching techniques, the annual cohort requirement may create complexity and make movements in profits and losses non-intuitive in comparison to those under IFRS 4. The issues related to the annual cohort requirement should be seen in the wider context of an unresolved tension between reflecting the insurance policy's contractual terms and economic purpose and addressing the hidden losses of specific groups of contracts.
3. In relation to a potential widespread increase in procyclical or excessive risk-taking behaviours, the interaction of IFRS 17 with IFRS 9 is not expected to generate any significant issue from a financial stability perspective. If insurance corporations decide to use the fair value option under IFRS 9, there should not be much space for large cross-sectoral accounting mismatches. If debt instruments are measured at fair value through other comprehensive income (OCI), the circumstances under which mismatches may appear are not straightforward. In the case of financial assets, a massive reallocation from debt instruments to equity instruments seems unlikely.



4. Regarding the activities covered by insurance undertakings, there were concerns as to whether IFRS 17 could disincentivise the use of reinsurance, an activity generally considered desirable (European Systemic Risk Board, 2015 and 2018). From a financial stability perspective, accounting for reinsurance contracts under IFRS 17 should contribute to a fair presentation of the reinsurer's risk exposure. IFRS 17 should enable the reflection and public disclosure of specificities that characterise reinsurance activities and risk management processes. As it incorporates a forward-looking perspective, IFRS 17 forces reinsurers to consider the impact of changing underwriting patterns and changing economic, competitive and market conditions in order to prevent mispricing of risk and over-optimistic expectations, which could otherwise lead to inappropriate retrocessions or risk transfers.

The following features of IFRS 17 may require policy follow-up to ensure the financial stability benefits of its implementation:

- (a) The significant weight of the unobservable component of discount rates under IFRS 17 may require close attention from audit firms, accounting enforcers and microprudential supervisors. Potential actions could include setting audit expectations, issuing guidelines on how to compute the unexpected components of the top-down and bottom-up methodologies, a benchmarking exercise across European insurers, and setting out expectations on adequate disclosures.
- (b) The breadth of possible accounting policies under IFRS 17 for the calculation of the risk adjustment could hamper comparisons across countries and sectors. This could trigger policy action regarding the confidence level for non-financial risk and the methodologies, inputs and assumptions used to calculate the risk adjustment (including guidance on the computation of the risk adjustment at individual and consolidated level).
- (c) The optional exemption from the annual cohort requirement has the potential to negatively affect the increased transparency introduced by IFRS 17, thereby reducing its expected positive financial stability impact. As such, careful monitoring may be required to identify any unintended effect on financial stability. Monitoring initiatives could be explored regarding (i) whether and to what extent similar insurance contracts may be reported differently by insurers (with some applying full IFRS 17 and others making use of the exemption), and (ii) how new insurance products would be accounted for under IFRS 17. Such monitoring exercises should, however, not result in a situation in which insurers that have chosen to apply the optional exemption would be asked to apply the annual cohort requirement.

In terms of the first-time implementation of IFRS 17, it is likely that the amount recognised on the balance sheet for insurance contracts will change, although the precise size of that impact is still uncertain, partly because insurers currently use a wide range of accounting practices. The change for individual insurance corporations will depend on how different the existing accounting practices are from those in IFRS 17 (International Accounting Standards Board, 2017b) and the valuation method chosen by the insurer at the transition date. Potential unexpected changes in the equity of insurance corporations in the transition to IFRS 17 could affect financial stability in the short run. This could particularly be the case if systemically relevant insurers and/or reinsurers are affected. However, these risks could be mitigated by timely and adequate reporting of the expected impact of



the initial application of IFRS 17 on the balance sheet and especially on the reported equity of insurance corporations. In this regard, it is also worth mentioning the following:

- Insurance corporations could benefit from synergies with Solvency II requirements. Even if Solvency II requires its own balance sheet, there are several areas where synergies could be exploited in the implementation of IFRS 17, such as cash flows, discount rates and risk adjustment (European Insurance and Occupational Pensions Authority, 2018a).
- The first-time implementation of IFRS 17 is a major project for insurance corporations and could therefore lead to organisational changes, which need to be properly carried out. Although organisational changes and the related operational risks may become less relevant for systemic risk as a result of the postponed entry into force of IFRS 17, supervisory authorities may need to monitor the implementation projects of insurance corporations in their jurisdiction and, where necessary, suggest actions to mitigate operational risks and to reduce the effects of adverse changes in markets and product portfolios.



1 Introduction

IFRS 17 is the accounting standard for insurance contracts prepared by the International Accounting Standards Board (IASB). It sets out how insurance contracts should be reflected on the balance sheet and in the profit or loss account of an insurer.⁴ It also specifies how to estimate the value of insurance contract liabilities and how to present and disclose information related to them.

IFRS 17 is aimed at enabling market participants to assess the financial position, performance and risk exposures of insurers and compare them across countries and sectors. The IASB found that the prevailing diversity in the accounting of insurance contracts, as allowed by the current IFRS 4, meant that investors and other stakeholders were not able to easily make such comparisons (Yeoh, 2017). Besides, the existing disclosure requirements did not provide for adequate information to assess the financial position, profitability and risk exposures of insurers. IFRS 17 provides a definition of insurance contracts and sets out a common framework of accounting models to measure insurance contracts.

The IASB issued IFRS 17 on 18 May 2017 and subsequently amended it in June 2020. The publication of IFRS 17 was the final step in a long-term IASB project concerning the accounting of insurance contracts. The IASB started working on insurance contracts in 1997 and issued IFRS 4 Insurance Contracts in 2004 as a temporary solution, essentially allowing insurance contracts to be accounted for using local accounting standards within the IFRS framework until agreement could be reached on a common accounting model to measure insurance contracts. The IASB issued a discussion paper on preliminary views on insurance contracts in 2007 (International Accounting Standards Board, 2007). The discussion paper already contained the main principles of IFRS 17, which were further developed over the following ten years. After the publication of the standard in May 2017, the IASB sought views on introducing limited amendments to IFRS 17 to address implementation issues identified by stakeholders. As a result of this consultation, amendments to IFRS 17 were issued in June 2020, including a deferral of its effective date by two years. Consequently, IFRS 17 is required to be applied in the financial statements for annual reporting periods starting on or after 1 January 2023. No further amendments to IFRS 17 are foreseen in the short-term.⁵ With the entry into force of IFRS 17, IFRS 4 will cease to be applicable.

In comparison to the currently applicable IFRS 4, IFRS 17 introduces significant changes in the way insurance contracts are measured and recognised. Insurance contracts are peculiar in that they can contain features of both a financial instrument and a service contract. Furthermore, they often generate cash flows over a very long period. Cash flows from individual insurance

⁴ In the EU, the term “insurance undertakings” is often used to refer to insurance corporations as it encompasses all legal entities providing insurance services. However, in this report, the terms “insurance corporations” and “insurer” are used interchangeably and should be interpreted as equivalent to “insurance undertakings”.

⁵ In May 2021, the IASB tabled a discussion on the transition requirements for IFRS 9 Financial Instruments in conjunction with the first application of IFRS 17.



contracts are frequently subject to substantial variability. However, the overall variability decreases with the number of homogeneous contracts written until a point is reached where future cash flows become to a large extent predictable.⁶ Estimates of future cash flows depend on a series of assumptions made. IFRS 17 attempts to more accurately reflect these characteristics of insurance contracts in the financial statements of insurers mainly by (i) recognising profits over the period that insurance services are provided according to the insurance contract and (ii) presenting insurance service results (including insurance revenue) separately from other income and expenses of a financial nature.⁷ Annex 1 briefly summarises the main content of IFRS 17.

Insurers have the option not to apply IFRS 9 until IFRS 17 enters into force. While IFRS 17 affects the way insurance contract liabilities are accounted for on the balance sheets of insurance corporations, IFRS 9 is the relevant accounting standard for financial assets held to meet the financial obligations in those contracts. Since the entry into force of IFRS 9 in January 2018, insurance corporations that meet certain conditions have been allowed to choose whether to apply IFRS 9 or its predecessor IAS 39 Financial Instruments: Recognition and Measurement.⁸ Once IFRS 17 comes into force in January 2023, this temporary exemption will expire.

IFRS 17 will be applied by a subpopulation of mainly large EU insurance corporations, as the requirement to apply IFRS 17 in the EU will cover consolidated financial statements of listed insurance corporations. In general, IFRS are required only for the consolidated financial statements of listed reporting entities across the EU. However, Member States can require or allow the use of IFRS for the consolidated financial statements of unlisted reporting entities and/or for their individual (separate) financial statements. According to data collected by the European Financial Reporting Advisory Group (EFRAG), only 500 insurers were using IFRS at the end of 2018, out of a total population of almost 3,000 insurance corporations in the EU (of which 2,402 were applying Solvency II), with substantial cross-country heterogeneity (Chart 1).⁹ In general, it can be expected that smaller insurance corporations will not apply IFRS 17, with some exceptions in certain EU Member States that also allow or require IFRS for individual financial statements. Consequently, in terms of the size of their balance sheet, those insurance corporations applying IFRS 17 can be expected to be the largest, representing a large share of the total balance sheet of insurance corporations in the EU. The total consolidated balance sheet of the 340 groups reporting regularly to the European Insurance and Occupational Pensions Authority (EIOPA) was approximately €10.477 trillion at the end of 2019, while the 2,716 insurance corporations reporting to EIOPA on a solo basis had a total balance sheet of €12.706 trillion. This shows that stand-alone insurers that are not part of a consolidated group accounted for no more than about €2.2 trillion (or about 20% of the size of those insurers that are part of a group).

⁶ In more technical terms, future cash flows become more predictable as the number of contracts increases because idiosyncratic risks increasingly offset each other and only systematic risks (e.g. due to common risk factors) remain.

⁷ IFRS 17 also requires insurers to choose between the recognition of all insurance finance income and expenses in the profit or loss account and the recognition of these items in the statement of OCI.

⁸ These conditions refer to the size of insurance liabilities as a percentage of total liabilities in the EU, and to the insurance part of a financial conglomerate.

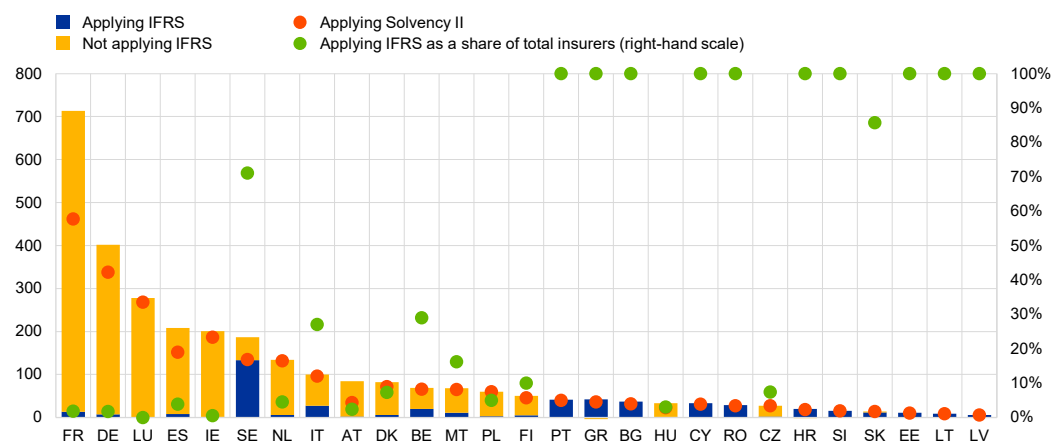
⁹ See European Financial Reporting Advisory Group (2021a).



Chart 1

Application of IFRS by insurers across EU countries at the end of 2018

(left-hand scale: number; right-hand scale: percentages)



Sources: European Financial Reporting Advisory Group (2021a) and ESRB Secretariat calculations.

Note: For the methodology used to compute the data, please refer to Annex 6 of European Financial Reporting Advisory Group (2021a).

The EU endorsement procedure for IFRS 17, which was suspended in 2019 when the IASB announced its intention to introduce limited amendments to IFRS 17, has recently been finalised.

In September 2020, EFRAG issued its draft endorsement advice for IFRS 17, asking for comments by 29 January 2021.¹⁰ On 31 March 2021 EFRAG submitted its final report on the endorsement of IFRS 17 to the European Commission.¹¹ EFRAG was not in a position to provide endorsement advice on IFRS 17 as a whole, owing to the divergent views on the requirement to measure and allocate profits linked to intergenerationally-mutualised and cash-flow matched contracts by annual cohorts. On this issue, seven EFRAG Board members believed that the annual cohort requirement had met the technical endorsement criteria and is conducive to the European public good, seven Board members believed it had not, and two EFRAG Board members abstained on the grounds that IFRS 17 cannot be assessed without the core requirement of determining performance.¹² Similarly conflicting views were observed in discussions among members of the Accounting Regulatory Committee (ARC). In July, the European Commission, with the ultimate objective of ensuring a timely implementation of IFRS 17 and preventing further delay in the overall process due to the stalemate in the discussions on the annual cohort requirement, proposed a draft

¹⁰ See [30/09/2020 - EFRAG requests comments on its Draft Endorsement Advice on IFRS 17 Insurance Contracts as resulting from the June 2020 amendments](#).

¹¹ See [31/03/2021 - EFRAG has finalised its due process around IFRS 17 and has submitted its Final Endorsement Advice on IFRS 17 Insurance Contracts including the June 2020 Amendments to the European Commission](#).

¹² The two abstaining Board members concluded that, on balance, the annual cohort requirement should not, in isolation, prevent the endorsement of IFRS 17 as a whole.



Regulation to endorse IFRS 17 with an optional exemption,¹³ on which the ARC voted in favour.¹⁴ According to the proposal from the European Commission, insurers may choose not to apply the annual cohort requirement to certain groups of insurance contracts (listed in the proposed Regulation), which they will be required to disclose as a significant accounting policy.¹⁵ The proposed Regulation does not contain specific provisions on how the groups of insurance contracts within the optional exemption should be measured,¹⁶ so the general treatment in IFRS 17 for the measurement of fulfilment cash flows applies to these groups of contracts, with the release of the contractual service margin (CSM) being determined at a higher level of aggregation.¹⁷ The European Commission transmitted the proposed Regulation to the Council and the European Parliament for a three-month objection period on 22 July 2021.¹⁸ The European Commission adopted the Regulation endorsing IFRS 17 in the EU on 19 November.¹⁹

EIOPA and the European Securities and Markets Authority (ESMA) have analysed the impact of IFRS 17, touching upon financial stability considerations. EIOPA issued a report in 2018 analysing IFRS 17 from a financial stability perspective (European Insurance and Occupational Pensions Authority, 2018a). The report concluded that IFRS 17 is expected to increase transparency and comparability in the insurance sector, as it (i) provides stakeholders with better insights into insurers' business models, exposures and performance, (ii) better reflects economic reality, and (iii) supports efficient risk management. Overall, IFRS 17 was found to potentially strengthen financial stability in the EU. More recently, ESMA and EIOPA responded to EFRAG's draft endorsement advice. ESMA referred in its response to financial stability aspects, highlighting that the provision of more transparent information has a beneficial effect on ensuring that financial market participants receive comparable and timely information, and that the effectiveness of IFRS 17 in depicting economic mismatches that may arise from the interplay between insurance liabilities and financial and non-financial assets backing those liabilities is particularly beneficial for financial stability (European Securities and Markets Authority, 2021). Similarly, EIOPA highlighted the benefits of IFRS 17 in strengthening financial stability in the EU (European Insurance and Occupational Pensions Authority, 2021). Regarding annual cohorts, EIOPA noted that, even though

¹³ From a technical perspective, the optional exemption from the implementation of IFRS 17 in the EU does not fall within the definition of a carve-out. A carve-out relates to a full or partial non-endorsement of an IFRS standard in the EU, which is a rather exceptional solution in the European implementation of IFRS. The parts of IFRS carved out are non-binding for EU-based reporting entities, resulting in a deviation from "full IFRS" as issued by the IASB. Besides, the IAS Regulation does not explicitly provide for the option of an EU-level "carve-in" (i.e. defining an accounting treatment to be applied instead of the one carved out). For more information, see Dobler (2020).

¹⁴ See [Commission Regulation \(EU\) .../... of XXX amending Regulation \(EC\) No 1126/2008 adopting certain international accounting standards in accordance with Regulation \(EC\) No 1606/2002 of the European Parliament and of the Council as regards International Financial Reporting Standard 17](#).

¹⁵ The optional exemption refers to the use of annual cohorts for the annual grouping of contracts (IFRS 17.22). Other parts of IFRS 17 continue to apply, including paragraph IFRS 17.24, which states that groups of insurance contracts cannot be reassessed after their initial recognition, still applies.

¹⁶ That would imply a "carve-in" to the IFRS applied in the EU, something that is not provided for in the IAS Regulation.

¹⁷ Annual cohorts are a unit of account for the CSM, not for the measurement of insurance contract liabilities.

¹⁸ For an overview of the process of endorsement of IFRS in the EU, see European Systemic Risk Board (2019).

¹⁹ See [Commission Regulation \(EU\) 2021/2036 of 19 November 2021 amending Regulation \(EC\) No 1126/2008 adopting certain international accounting standards in accordance with Regulation \(EC\) No 1606/2002 of the European Parliament and of the Council as regards International Financial Reporting Standard 17](#).



several ideas to replace this requirement were tentatively explored by EFRAG, none of them were found to be viable, and it warned that an endorsement advice to exclude “intergenerationally-mutualised and cash-flow matched contracts” from the annual cohort requirement in IFRS 17 could lead to undesired (negative) consequences. ESMA expressed similar concerns and warned against any attempt to simply remove the annual cohort requirement without an appropriate replacement, noting that the requirements on the level of aggregation, including disaggregation into annual cohorts, are integral to the functioning of the entire standard.

In accordance with a resolution by the European Parliament, this report assesses the financial stability implications of IFRS 17, considering the text of the standard as issued by the IASB in May 2017 and amended in June 2020. On 3 October 2018, the European Parliament adopted a resolution on IFRS 17 which, among other things, called on the ESRB to establish a task force on IFRS 17.²⁰ This report assesses IFRS 17 from a financial stability perspective, responding to the implicit mandate given by the European Parliament in 2018. The requirement for annual cohorts has also been taken into account. While this report focuses on the impact of IFRS 17 on financial stability, the ESRB acknowledges that other considerations (i.e. consumer protection) are important when considering the overall impact of IFRS 17 on the EU. In this vein, the ESRB has not attempted to carry out a cost-benefit analysis of the standard, as that would be outside of the mandate given by the European Parliament.

This report is organised as follows. Section 1 is this introduction. Section 2 considers the framework used for the assessment of the financial stability implications of IFRS 17 and draws the main conclusions. It also pays particular attention to the initial implementation of the standard. Section 3 discusses in more detail areas of IFRS 17 of special relevance for financial stability and contains two boxes describing analytical work in relation to discount rates and annual cohorts. Section 4 concludes and puts forward a series of policy considerations. Two annexes accompany the report, providing a brief summary of IFRS 17 and further details about the stylised example in Box 2.

²⁰ See [European Parliament resolution of 3 October 2018 on International Financial Reporting Standards: IFRS 17 Insurance Contracts \(2018/2689\(RSP\)\)](#).



2 Assessment of IFRS 17 from a financial stability perspective

This section provides the core of the assessment of IFRS 17 from a financial stability point of view. It starts with a description of how accounting standards in general can affect financial stability. This provides the basis for our overall assessment of IFRS 17 and financial stability, which is presented afterwards. The section ends with several reflections on first-time implementation of IFRS 17.

2.1 Accounting and financial stability

Accounting can be seen as the process of conveying the impact of economic events and transactions – in a standardised and aggregated manner – to the users of financial statements. Based on conceptual foundations around the notions of assets and liabilities, equity, and profits and losses, accounting standards define the principles on the basis of which economic phenomena are presented to users of financial statements in order to inform their decision-making in a relevant and reliable way. Inspired by those principles, the management of reporting entities define the accounting policies and measurement assumptions that determine the estimates in the financial statements. In turn, the financial statements inform investors (principals) and other stakeholders about the reporting entities (economic agents). Beyond this informational function, financial statements may have legal and/or regulatory consequences, for example in the assessment of distributions to investors and in insolvency law.²¹

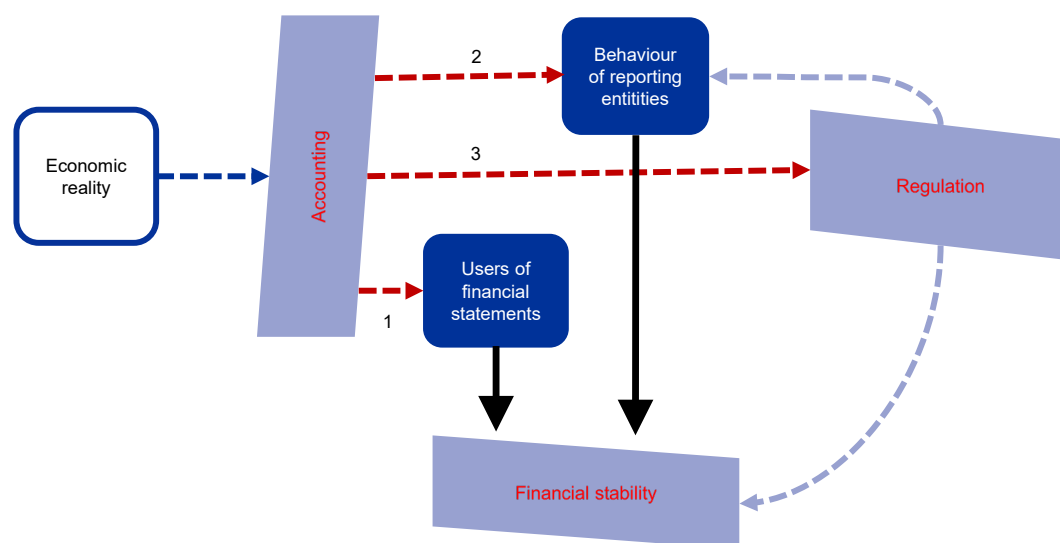
Accounting standards can influence financial stability through different channels that reflect the different objectives (Figure 1). Although the accounting process is not primarily meant as a tool to foster financial stability, there are at least three channels through which relevant and reliable financial information from the accounting process can affect financial stability through (1) transparency, (2) the behavioural response of the reporting entities, and (3) regulation. These channels are explained in further detail in the following paragraphs.

²¹ Consolidated financial statements prepared according to IFRS have a purely informational function in many jurisdictions. They are, of course, interlinked with separate financial statements prepared according to local accounting standards (national Generally Accepted Accounting Principles, GAAP) or according to IFRS, if the Member State allows for that, which have further legal importance. Separate financial statements are important as they can have legal consequences in terms of, among other things, distributions to investors and insolvency proceedings. The different nature and objectives of international and local accounting standard setters often result in different accounting rules. Furthermore, separate and consolidated financial statements (according to IFRS and/or national GAAP) are often interlinked in complex ways, which go beyond the scope of this report.



Figure 1

Accounting and financial stability



Sources: Author's elaboration, based on European Central Bank (2006) and International Accounting Standards Board (2017a).

Transparency brought by accounting can positively contribute to financial stability.

Transparency in accounting, understood as the access to relevant, reliable and timely financial information about an economic agent, enables users of financial statements to make informed decisions of an economic nature. It discourages economic agents (the reporting entities) from engaging in risky behaviours and transactions and supports internal and external decision-making processes. These are all beneficial to financial stability (International Accounting Standards Board, 2017a). In this respect, financial statements prepared in accordance with a given set of accounting standards must provide information to financial market participants on the risks being taken on by the reporting entity and their impact in terms of financial position, performance and cash flows.²² Financial statements are helpful when they fairly depict the underlying economic reality of the reporting entity, thus reflecting the best objective evidence that is available at a certain reporting date, while not omitting any relevant information. Accounting standards can be seen as a “reporting language”, translating economic reality into standardised metrics, such as assets and liabilities, and profits and losses. Changes in the “reporting language” can also change the translation of the economic reality.

Accounting standards should define principles that ensure that assets and liabilities, income and expenses, and gains and losses are accurately estimated, preventing the misstatement of figures in the financial statements (European Systemic Risk Board, 2020a).

For example, it is important that accounting standards encourage timely recognition of expected

²² However, information from financial statements should not be used as “automatic rules” but framed together with other inputs into a broader assessment of the reporting entity.



losses, avoiding large adjustments when the losses materialise (European Central Bank, 2006). If financial statements contain distorted information, this can impair investors' judgment about future cash flows and risks of reporting entities.

Since accounting standards apply to all types of entities, they have a systematic effect on the translation of the economic reality into standardised metrics and thus the information quality of all financial statements. Their flaws can lead to systematically biased translations and thus misjudgements on the part of investors (and other stakeholders, such as, for example, policyholders in the case of accounting standards related to insurance contracts) and thus systematically increase their vulnerability. Potential risks resulting from inappropriate accounting standards are therefore of a systematic rather than of an idiosyncratic nature and could therefore affect financial stability.

There may be a trade-off between (individual) short-term effects and (broader) long-term effects of transparency on financial stability. Accounting standards can promote transparency. If, however, negative issues relating to economic agents are disclosed to the public, this can trigger episodes of short-term instability. For example, the disclosure of large losses at a financial institution informs investors about its deteriorated economic situation. This information can lead to a decline in its share price and to an increase in the interest rates on its debt securities, triggering second-round and spillover effects for similar institutions. However, these episodes of short-term instability are typically followed by a long-term strengthening of financial markets as weaker entities are identified in a timely manner and forced to improve their performance. In the long run, transparency prevents the build-up of risks and vulnerabilities, thereby enhancing financial stability overall.

Accounting standards that are artificially complex or that lead to unnecessary volatile outcomes can hamper financial stability. In principle, the information produced according to a set of accounting standards should be self-explanatory and understandable (European Central Bank, 2006). An accounting standard that is artificially complex can lead to financial statements that are unable to appropriately convey the underlying economic reality and, hence, does not contribute to financial stability. However, complex economic transactions should be accurately reflected in the financial statements, and therefore accounting standards must inherently have some degree of complexity. Given the complex activities of financial institutions, having accounting standards with some degree of complexity is almost unavoidable if the underlying economic transactions are to be accurately reflected in the financial statements. Nevertheless, a set of accounting standards that generates complex and hard-to-understand information even for simple economic transactions can hamper financial stability. Similarly, the nature of many financial transactions is such that they are subject to some volatility over time. Accounting standards that are either not able to reflect such volatility, thus generating artificially smooth outcomes, or that exacerbate the volatility of outcomes of the underlying economic reality do not contribute to financial stability.

Accounting standards may also create incentives for certain behaviours of economic agents, which may, in turn, give rise to financial stability concerns. Theoretically, accounting standards should be neutral for economic decision-making. In other words, economic decisions should be based on unbiased financial information, irrespective of the accounting standards in place (International Accounting Standards Board, 2018). Accordingly, similar economic transactions should receive similar accounting treatment and dissimilar economic transactions should be treated



dissimilarly by accounting standards. Otherwise, accounting standards could distort the rational decision-making process of economic agents, with the potential to lead to suboptimal outcomes. An assessment of an accounting standard's financial stability implications therefore requires an understanding of its potential effect on accounting neutrality and whether it could introduce distortions in the decision-making process of economic agents through a biased accounting representation of the underlying economic reality.

Some behavioural responses can be particularly detrimental to financial stability and should not be incentivised by accounting standards. Behavioural responses that could harm financial stability include, for example, (i) procyclical behaviours (in asset allocation, pricing, recognition of gains and losses, etc.), (ii) excessive concentration of exposures and/or interconnections, (iii) inappropriate or excessive involvement in certain activities and/or products, (iv) discouragement of desirable activities and/or products, (v) excessive risk-taking (particularly when not appropriately addressed by the relevant prudential framework), and (vi) pertaining to investors as users of financial statements, collective behaviour that could exacerbate market price movements.

Accounting can also be the starting point for prudential regulation, but this is not the case for IFRS 17 in the insurance sector. For the banking sector, accounting is used as the main input for the determination of prudential capital and liquidity requirements, as well as for other binding regulatory requirements (European Systemic Risk Board, 2020a). Thus, accounting standards can indirectly affect the prudential solvency and liquidity position of banks. In the case of insurers, Solvency II defines its own balance sheet, particularly with regard to the valuation of insurance liabilities (technical provisions) and equity (own funds), independently from accounting standards, so IFRS 17 cannot directly affect the solvency position of insurers.

2.2 IFRS 17 and financial stability

It is widely acknowledged that IFRS 4, the current accounting standard for insurance contracts, permits a wide range of divergent national accounting standards and practices, leading to suboptimal financial information for users of financial statements (Yeoh, 2017; European Insurance and Occupational Pensions Authority, 2018a). IFRS 4 was intended to be a temporary solution, until a new fully-fledged accounting standard (IFRS 17) could be developed. As such, IFRS 4 allows for a wide range of accounting practices and relies extensively on divergent national accounting standards.²³ As a result, financial statements of insurers currently provide information that is not comparable across them, particularly about insurance contract liabilities and profitability (Yeoh, 2017), and that is hard to understand (European Insurance and Occupational Pensions Authority, 2018a). From a global perspective, comparability of financial statements across international insurance corporations is hampered by the wide array of accounting practices allowed under IFRS 4.

²³ The use of national accounting practices is mitigated to some extent by an overall assessment of insurance liabilities (the liability adequacy test).



The low interest rate environment is severely affecting the insurance sector (particularly life insurance), raising calls for increased transparency.²⁴ The insurance sector is characterised by limited funding risk, as a significant proportion of the liabilities on its balance sheet are long-term. As such, insurance is seen as an important source of funding for the economy, in particular for governments and banks (European Systemic Risk Board, 2015 and 2018). Nonetheless, in the current macroeconomic environment characterised by low interest rates, the sustainability of business models of certain financial institutions, such as banks and insurance corporations, is challenged. That is particularly the case for business models with return guarantees on long-term liabilities (European Systemic Risk Board, 2016 and 2021; Committee on the Global Financial System, 2018). In the academic literature, several authors have analysed the implications of minimum return guarantees for systemic risk in a low interest rate environment. Hartley et al. (2016) find that guarantees and policyholder options in US life insurance products exposed them to higher interest rate risk after the global financial crisis (in a period of low interest rates) than was the case for UK life insurance products. Ellul et al. (2018) analyse in detail how financial guarantees (like those in certain life insurance products) may create systemic risk through correlated investments to meet their guaranteed returns, while Kojien and Yogo (2021) consider how minimum return guarantees can create risk mismatches in the financial system. Focusing on annual cohorts in the German insurance market, Hombert et al. (2021) find that new investors in life insurance products benefit from previously built-up reserves and that the low interest rate environment is making more minimum guarantees binding, with the expectation that profit-sharing across cohorts will be limited in the future if interest rates remain low. In this regard, transparency becomes particularly important for the insurance sector, which confronts heightened vulnerabilities and, as pointed out by the International Monetary Fund (IMF), “[...] suffers from opaque and heterogeneous financial disclosure and deficiencies in the accounting and regulatory regimes” (International Monetary Fund, 2017).²⁵ While any solvency implications of such market conditions for insurance corporations are already monitored and reported based on the prudential framework (Solvency II in the EU), the implications of this evolving scenario in terms of profitability patterns and performance of insurers lacks appropriate accounting measurement and reporting tools.

In the aftermath of the global financial crisis, European authorities have undertaken a significant effort to identify the sources of systemic risk in the insurance sector. EIOPA (European Insurance and Occupational Pensions Authority, 2017 and 2018b) and the ESRB (European Systemic Risk Board, 2015 and 2018) have identified possible channels through which the insurance sector could create or amplify systemic risk (Figure 2). These channels can be classified into four large groups (Figure 3). The first group includes *critical activities*, which are seen

²⁴ Another reason for greater transparency in the sector is liquidity risks, for example in the event of a strong increase in interest rates and credit spreads. By nature, life insurance contracts are long-term and, consequently, the funding of life insurers is stable in most scenarios. However, about 90% of life insurance contracts can be surrendered with a penalty lower than 15% of the policy value (European Systemic Risk Board, 2015). In a severe scenario of a strong increase in market rates and credit spreads, policyholders could opt for higher-yielding products, thereby increasing lapse rates significantly. In this unlikely event, life insurers would need to liquidate investments, thereby amplifying the initial shock (European Insurance and Occupational Pensions Authority, 2020a; Förstemann, 2021; Kubitza et al., 2021).

²⁵ The last part of this statement may not fully apply to the EU, where disclosure is required under Pillar III of Solvency II.



either as critical services of the insurance sector (lack of substitutes in vital lines of insurance business, systematic withdrawal/failure of (re)insurance services) or as overly risky and outside the core business of insurers (non-traditional non-insurance activities, involvement in certain activities or products). The second group refers to the *behaviour of insurance corporations*, which could exacerbate market movements or trends (procyclicality in asset allocation, procyclicality in the pricing and writing of insurance, collective behaviour that may exacerbate market movements, excessive risk-taking by insurance companies). A third group touches upon *interconnections with other financial intermediaries or with the real economy* (direct and indirect contagion, potentially dangerous interconnections, excessive concentration, inappropriate exposures on the liabilities side).²⁶ In the case of reinsurance, the existence of few institutions at the core of this activity could exacerbate issues around contagion and interconnectedness (see, among others, Fields et al., 1998; van Lelyveld et al., 2011; and Lin et al., 2014). The fourth group relates to *vulnerabilities of the insurance sector with respect to macroeconomic factors* (common vulnerability to a double-hit scenario, deterioration of solvency position). According to the IMF (International Monetary Fund, 2016), systemic risks can result both from the failure of a single large insurer (domino view or “too-big-to-fail”) or from simultaneous failures of many insurers (tsunami view or “too-many-to-fail”). The latter may be particularly important when it comes to accounting, because potential flaws in accounting standards may affect all insurers within their scope.

Figure 2
Sources of systemic risk for insurance

ESRB (2015)	ESRB (2018)	EIOPA (2017 and 2018b)
<ul style="list-style-type: none"> • Non-traditional non-insurance activities • Procyclicality in asset allocation • Procyclicality in the pricing and writing of insurance • Common vulnerability to a double-hit scenario • Lack of substitutes in vital lines of insurance business 	<ul style="list-style-type: none"> • Systematic withdrawal/failure of (re)insurance services • Direct and indirect contagion 	<ul style="list-style-type: none"> • Deterioration of the solvency position • Involvement in certain activities or products • Potentially dangerous interconnections • Collective behaviour that may exacerbate market price movements • Excessive risk-taking by insurance companies • Excessive concentration • Inappropriate exposures on the liabilities side

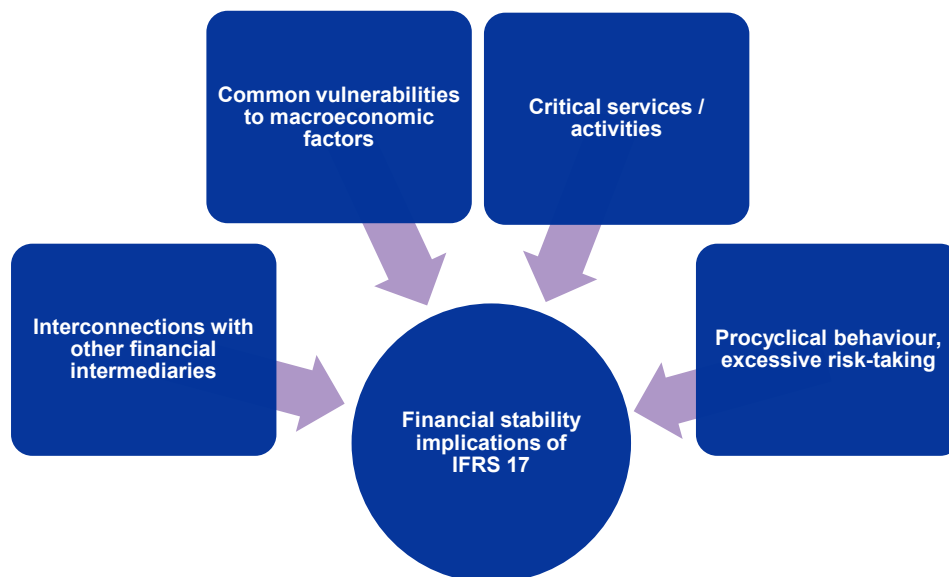
Sources: European Systemic Risk Board (2015 and 2018), European Insurance and Occupational Pensions Authority (2017 and 2018b).

²⁶ For example, the insolvency of Merced Property & Casualty Co. in the United States due to fires in California, or tensions in business interruption insurance in the United Kingdom due to the coronavirus (COVID-19) pandemic.



Figure 3

Sources of insurance-related systemic risk and their impact on financial stability implications of IFRS 17



Source: Author's elaboration.

IFRS 17 interacts with these four channels predominantly through the transparency channel of accounting and to a lesser degree through the behavioural response channel. Given the importance of discount rates in determining the amount of insurance contract liabilities and the particular nuances in a low interest rate environment, Section 3.1 discusses the related requirements in IFRS 17 and some potentially important implications for the computation of insurance contract liabilities. By influencing their behaviour and potentially generating biased financial information, it needs to be assessed whether IFRS 17 could affect the activities of insurance corporations, for example by discouraging engagement in activities that are socially important, but unattractive from a business perspective, or conversely by encouraging the marketing of products that are potentially detrimental for policyholders or for financial stability.²⁷ Furthermore, the accounting provisions for insurance liabilities in IFRS 17 could lead to excessive concentration in certain products or investments, which could negatively affect financial stability and, as such, deserves close attention in our assessment. Moreover, our financial stability

²⁷ At the extreme, the introduction of IFRS 17 could lead to a relocation of insurance activities to non-IFRS jurisdictions. While that scenario sounds unrealistic for traditional insurance business models, it could occur for global insurance markets, such as reinsurance, if IFRS 17 introduces a markedly burdensome accounting treatment for reinsurance contracts. However, it should be noted that, according to the IASB website, out of 166 jurisdictions requiring or permitting IFRS, there are only eight (Belize, Bermuda, the Cayman Islands, Egypt, Macao, Suriname, Switzerland and Vietnam) in which the relevant authorities have not made a public commitment to IFRS as the single set of global accounting standards, and IFRS are commonly used by publicly accountable entities (listed companies and financial institutions) in four of these (Belize, Bermuda, the Cayman Islands and Switzerland).

assessment also considers whether and how IFRS 17 could intensify the procyclical behaviour of insurers or reinsurers or lead to excessive risk-taking.

In our assessment, IFRS 17 is expected to make a substantial contribution to financial stability by promoting internationally comparable accounting practices and by increasing transparency in the insurance sector. The current accounting standard for insurance liabilities, IFRS 4, is found to be inappropriate by many stakeholders, hampering transparency and comparability with other sectors or within the insurance sector (Yeoh, 2017; International Monetary Fund, 2017; European Insurance and Occupational Pensions Authority, 2018a; European Securities and Markets Authority, 2021). IFRS 17 defines a clear treatment of insurance liabilities and should contribute to providing a fair view of the financial position and performance of insurance corporations. In addition, detailed and consistent disclosures are expected to increase transparency in the sector. There have been concerns as to whether IFRS 17 could disincentivise the use of reinsurance, an activity considered to be desirable from both a safety and soundness and a financial stability perspective (European Systemic Risk Board, 2015 and 2018). Our assessment in Section 3.4 concludes that this is highly unlikely, and we have not found any other instance where IFRS 17 could encourage EU-based insurance corporations to engage in risky activities or to abandon activities that are socially desirable.

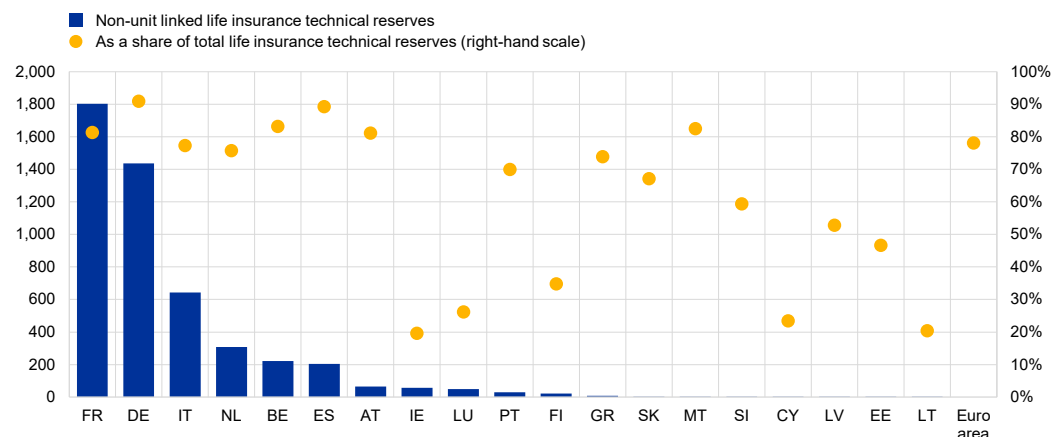
The most controversial aspect of the implementation of IFRS 17 refers to the annual cohort requirement, which is also related to how onerous contracts are accounted for. Section 3.2 analyses, from a financial stability perspective, the accounting treatment of onerous contracts and the risk adjustment, and how they can interact with the requirement to distribute contracts to annual cohorts. The annual cohort requirement is a core part of IFRS 17 and instrumental to make it achieve its objectives. Chart 2 shows the amount of technical provisions for non-unit linked life insurance contracts, which in principle should be the most affected by the requirement. While significant cross-country heterogeneity can be observed, there is a perception that non-unit linked life insurance contracts are particularly important in many EU Member States.



Chart 2

Non-unit linked life insurance technical reserves in euro area countries at the end of 2020

(left-hand scale: EUR billions; right-hand scale: percentages of total technical provisions for life insurance contracts)



Sources: European Central Bank and ESRB Secretariat calculations.

Note: No data available for non-euro area EU Member States.

While analysing the annual cohort requirement from a financial stability perspective, it is necessary to note the current macroeconomic environment in which insurance corporations operate.

The measurement model for insurance contracts should be able to capture adequately and in a timely manner the effect on profitability of situations in which high minimum guarantees are confronted with relatively low market yields from underlying assets (European Insurance and Occupational Pensions Authority, 2020b; European Systemic Risk Board, 2021). In these circumstances, when insurers act as “shock absorbers” to even out payments to policyholders, insurer’s profitability should reflect these effects in a timely manner. Adequate disclosures can also help investors contextualise this information relating to the reporting period in the broader picture of the expected longer-term profitability and, ultimately, sustainability of the underlying portfolio. Besides, in addition to the absolute assessment of the financial stability implications of IFRS 17, it is necessary to make the assessment in relative terms, in view of the existing alternatives. Indeed, the absence of an alternative accounting standard aimed at accurately measuring the profitability of insurance contracts in a macroeconomic environment of low interest rates may also affect financial stability, as transparency and comparability across insurers would not be fully achieved. This would in turn relate to the current situation, in which IFRS 4 does not seem to sufficiently ensure cross-sectoral comparability of insurance contract liabilities and profitability (Yeoh, 2017).²⁸

Related to potential sources of systemic risk for the insurance sector, IFRS 17 is not found to lead to a widespread increase in procyclical or excessive risk-taking behaviours. IFRS 17

²⁸ International Accounting Standards Board (2017b) provides specific examples of improvements in IFRS 17 compared with the current IFRS 4.



addresses a significant part of the liabilities side of the balance sheet of insurers, while IFRS 9 should be applied to the financial assets held. As concluded in Section 3.3, in its interaction with IFRS 9, IFRS 17 is not expected to generate any significant issue from a financial stability perspective. It is not expected to lead to significant changes in risk-taking, to procyclical behaviours or concentrations of assets. The possible increase in the volatility of profits and losses derived from the measurement of insurance liabilities (driven by the annual cohort requirement and changes to the estimation of discount rates) should not be automatically seen as procyclical and negative for financial stability.²⁹

2.3 Issues around first-time implementation

2.3.1 Initial application and transition

On first-time implementation, IFRS 17 should be applied retrospectively, unless it is impractical to do so. As for any new IFRS, the date of initial application is the beginning of the annual reporting period in which the reporting entity first applies IFRS 17 and the transition date is the beginning of the annual reporting period immediately preceding the date of initial application. To apply IFRS 17 retrospectively, a reporting entity should at the transition date (i) identify, recognise and measure each group of insurance contracts as if IFRS 17 had always been applied, (ii) derecognise any existing balances that would not exist if had IFRS 17 always been applied, and (iii) recognise any resulting net difference in equity.³⁰ More specifically, at the transition date, the reporting entity should measure or determine for each group of contracts:

- the carrying value of the liability or asset, with separate measurement of the risk adjustment and the CSM or loss component,
- the locked-in discount rate, i.e. the discount rate used for CSM accretion,
- the accumulated OCI, if the OCI option is chosen, and
- the balance of unamortised insurance acquisition cash flows, unless the fair value approach is used.

If it is impractical to apply IFRS 17 retrospectively for a group of insurance contracts, reporting entities have the choice of applying a modified retrospective approach or a fair value approach. When both approaches are available to restate prior periods for which full

²⁹ As further explained in Section 3.2.3, this volatility could be generated by certain annual cohorts becoming onerous while the aggregate portfolio to which they belong remains non-onerous.

³⁰ See IFRS 17.C4.



restatement is impractical, IFRS 17 allows the reporting entity to choose either restatement approach without constraint.

2.3.2 Equity effects and investor confidence

While it is likely that the amount recognised on the balance sheet for insurance contracts will change due to the first-time implementation of IFRS 17, the impact is still uncertain as IFRS 4 does not address how to measure insurance contracts and insurers currently use a wide range of accounting practices. The change for a particular insurance corporation will depend on the accounting policies chosen upon transition to IFRS 17 and on how different the existing accounting practices are from those in IFRS 17 (International Accounting Standards Board, 2017b). The IASB's impact analysis considers the effects on reported equity when first applying IFRS 17 based on a differentiation between short-term and long-term insurance contracts. Little change is to be expected in the liability for remaining coverage in the accounting of short-term contracts qualifying for the simplified premium allocation approach. For non-life insurers, for which discounting is not a feature of existing accounting practices, the requirement to discount to determine the liability for incurred claims will reduce insurance contract liabilities and increase equity. Greater change is expected for insurers writing long-term products, especially if they are changing from an accounting regime where assumptions are determined at contract inception. For insurers writing long-term products or annuity business, insurance contract liabilities and the consequent timing of recognition of accounting profit and capital ratios are extremely sensitive to the level of the discount rate. As IFRS 17 does not prescribe the measurement of the risk adjustment for non-financial risks, for either short-term or long-term business, the impact of the IFRS 17 risk adjustment will depend on the implementation methodologies chosen, and especially on the confidence level reported in the notes to the financial statements. Increases in risk adjustments will increase insurance contract liabilities and reduce reported equity, while reductions in risk adjustments will reduce insurance contract liabilities and increase reported equity.

A potential unexpected change in the equity of insurance corporations in the transition to IFRS 17 could affect financial stability in the short run. That would particularly be the case if systemically relevant insurers and/or reinsurers were to report lower equity than investors and policyholders had expected based on the reports prepared in accordance with Solvency II. In a scenario in which the impact of the entry into force of IFRS 17 cannot be sufficiently anticipated by rating agencies, the transition to IFRS 17 (and, in particular, the expected change in the equity of insurance corporations) may have the potential to trigger rating downgrades,³¹ which, coupled with the need to define specific accounting policies for the period between the inception of a group of contracts and the opening balance sheet, could risk investors losing confidence in the reported

³¹ In the context of the COVID-19 pandemic, European Systemic Risk Board (2020b) analyses the impact of widespread rating downgrades on financial markets. While ratings downgrades from insurance corporations as a result of the implementation of IFRS 17 would have a smaller impact, the insights from European Systemic Risk Board (2020b) may be useful in understanding transmission mechanisms and possible channels of contagion.



values. Depending on currently applicable accounting standards, it is possible that first-time implementation of IFRS 17 may require additional provisions, thereby reducing distributable reserves. Conceivably, the amounts recognised in equity due to first-time implementation of IFRS 17 could be used as a mechanism to smooth profits over time.

However, these risks could be mitigated by timely and adequate reporting of the expected impact of initial application of IFRS 17 on the balance sheet, and especially on the reported equity of insurers. Equity and investor confidence issues could intensify in a negative market environment. Besides, insurance corporations may be reluctant to disclose the full impact of IFRS 17 on their equity, given the sensitivity of figures to assumptions made and the need to account for future market conditions. In view of this, accounting enforcers and supervisory authorities should pay particular attention to the adequacy of disclosures in the financial statements of insurers prior to the first-time implementation of IFRS 17. Furthermore, Solvency II sets out disclosure requirements on solvency ratios, which could mitigate the concerns expressed above through increased transparency on the development of insurers' own funds.

2.3.3 Changes in markets, portfolios and organisation

Insurance corporations can be expected to evaluate the first-time implementation approach to adjust the impact of IFRS 17 on their equity and future earnings. First-time implementation can be expected to be a focus area for insurance corporations given the significant level of judgement involved in choosing the approach to use and the potentially significant and long-term implications. The CSM (unearned profit) at the transition date will be an important component of the impact on equity and profits.

Insurance corporations may consider different strategies to accommodate the first-time implementation of IFRS 17. These strategies might include reinsurance or divestiture of onerous blocks of business or certain assets. The first time-implementation of IFRS 17 could become a contributing factor to changes in their asset-liability management (including the first implementation of IFRS 9), potentially leading to adjustments in investment policies, product design and pricing. As IFRS 17 introduces new measurement parameters, the existing set of key performance indicators could also experience changes.

The first-time implementation of IFRS 17 is a major project for insurance corporations, and could therefore lead to organisational changes, which need to be properly set up. Particularly for smaller, resource-constrained insurers required to apply IFRS 17, the integration of data management, currently handled separately by actuarial, accounting and administrative areas, cannot be done effectively without cross-functional collaboration and effective projects, change management and oversight. In addition, most insurers will be implementing IFRS 17 and IFRS 9 at the same time and may not yet fully appreciate the interaction between them. Time pressure may force some insurance corporations to rely initially on manual controls, potentially resulting in higher costs and creating operational risk. Insurers can be expected to face challenges in the structuring of data warehouses and IT systems, and in the recruitment of staff with actuarial, accounting and collaboration skills (Chong-Tai Bell et al., 2020). Being aware of the challenges ahead of the



implementation of IFRS 17, insurance corporations should already be in an advanced phase of their preparations, as the standard was first issued in 2017 (and later slightly amended).

The prolonged period until the first application of IFRS 17 mitigates the risk that portfolio changes and organisational changes will have an adverse impact on financial stability.

Organisational changes have been smoothed and the related operational risks have decreased as a result of the postponed entry into force of IFRS 17. Supervisory authorities need to monitor the implementation projects of insurance corporations in their jurisdiction and, if needed, suggest actions to mitigate operational risks and to reduce the effects of adverse changes in markets and product portfolios.



3 Relevant areas for financial stability

As part of the assessment of IFRS 17 from a financial stability perspective, this section provides further details in areas of special relevance. It starts with a discussion of the two methods allowed by IFRS 17 for the computation of discount rates, followed by an extensive discussion on onerous contracts, risk adjustment and the annual cohort requirement. A discussion of the expected interaction between IFRS 17 (insurance liabilities) and IFRS 9 (financial assets) comes next. The section closes with a reflection on the expected impact of IFRS 17 on reinsurance.

3.1 Discount rates

IFRS 17 permits two methods for the calculation of the discount rates in the computation of the best estimate of insurance liabilities. According to the bottom-up method, which is used for cash flows that do not vary based on the returns on underlying instruments, the discount rate equals the sum of the risk-free rate and an illiquidity premium. According to the top-down method, the discount rate should be equal to the yield on actual assets in a reference portfolio, minus the market risk premia for expected and unexpected credit losses, as well as other adjustments (such as asset-liability mismatch adjustments).

Both approaches should theoretically result in the same discount rate. The corporate bond spread is the difference between yields of corporate bonds (Y_{cb}) and of risk-free assets (Y_{rf}). Traditionally, this spread has been divided into three components in an additive fashion: (i) compensation for expected default (expected credit losses, ECL); (ii) compensation for uncertainty (unexpected credit losses, UCL); and (iii) a residual, often but potentially not exclusively, assumed to compensate for illiquidity (liquidity premium, LP). If we consider the corporate bond spread ($Y_{cb} - Y_{rf}$) to be the sum of (i), (ii) and (iii) above, then we get:

$$Y_{cb} - Y_{rf} = ECL + UCL + LP$$

$$Y_{cb} - ECL - UCL = Y_{rf} + LP$$

$$Top - down = Bottom - up$$

In practice, however, the sum of the estimates of the unobservable risk premia for expected and unexpected credit losses and the liquidity premium may not equal the difference between the yields of corporate bonds and risk-free assets. Therefore, the bottom-up and the top-down method may result in different discount rates, as acknowledged by the IASB (IFRS 17.B81).

IFRS 17 is going to be applied in an environment of low interest rates, and the relative importance of the unobservable components in the computation of discount rates can therefore be expected to be significant (Box 1). Among the variables used in the computation of



discount rates under IFRS 17, the liquidity premium seems conceptually the most difficult to compute, so insurers may turn to the top-down approach, even if the computation of unexpected credit losses is not straightforward either, and/or they may try to use discount rates computed according to the requirements in Solvency II. In periods of low risk-free interest rates, the relative importance of unobservable components in computed discount rates would be higher than in other circumstances.

Box 1

Estimating discount rates according to the two methods in IFRS 17

The purpose of this box is to illustrate the functioning of the two methods in IFRS 17 in practice, particularly in a low interest rate environment. Discount rates play a fundamental role in the determination of the carrying amount of insurance liabilities under IFRS 17 and have been at the centre of the discussion on the financial stability impact of IFRS 17 (European Insurance and Occupational Pensions Authority, 2018a). This box shows the results of a simulated computation for the bottom-up and the top-down methods.³²

The top-down estimation of discount rates is based on bond yields and on default matrices of rating agencies. We use yields of corporate and government bonds, weighted according to their relative importance in the aggregated balance sheet of European insurers (approximately 50% each). For the computation of expected and unexpected credit losses, we use default rates of long-term corporate bonds in Europe, as reported to ESMA by Moody's. We cover the period 2000 to 2019, leaving out 2020 in order to exclude the impact on corporate defaults of the COVID-19 pandemic and the related government support measures. We extrapolate the data on expected and unexpected credit losses to get quarterly data. Within each rating category, expected credit losses are the lower of the long-term average and the previous default rate, plus a floor per rating (Aaa=0.01, Aa=0.02, etc.). Unexpected credit losses by rating are calculated as the higher of the floor of each rating and the deviation from the long-term average. To obtain the expected and unexpected credit losses for the total, the results for each rating category are weighted according to the number of bonds in the category.

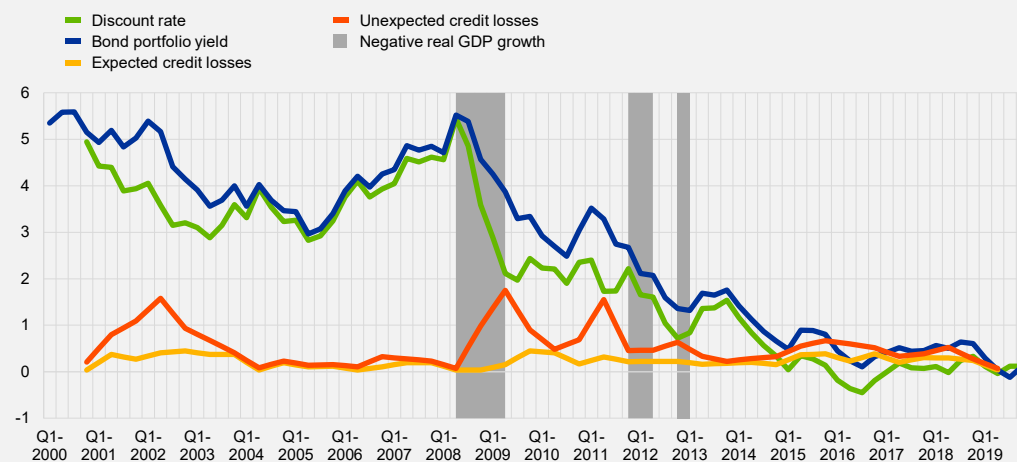
The discount rate computed under the top-down method as described above shows a continuous decreasing trend since 2008, reaching negative territory towards the end of the time-series (Chart A). With discount rates always above 3% before the global financial crisis, they peaked at its onset (slightly above 5%) and then continuously decreased until reaching negative values in the period 2016-2019. Discount rates generally increase as a result of higher unexpected credit losses, usually in periods of negative GDP growth (shaded in grey in Chart A).

³² The estimations of the risk premia for expected and unexpected credit losses and the liquidity premium are provided for illustrative purposes and are not to be understood as ESRB proposals for estimation methods.



Chart A
Simulated discount rates according to the top-down method

(percentages)



Sources: Bloomberg, ESMA CEREP database, Eurostat and ESRB Secretariat calculations.

Note: Grey shading indicates periods with negative real GDP growth rates for the EU.

For the bottom-up method, we use swap yield rates and compute the liquidity premium as the residual component. Like EIOPA, we use the five-year swap rate as an approximation for the yield on risk-free assets. Due to the unavailability of a time series on the liquidity premium,³³ we compute it as the residual of the difference between the yield on corporate bonds and the sum of the yield on risk-free assets and the expected and unexpected credit losses (calculated as described above for the top-down method).

The discount rate under the bottom-up method also shows a decreasing trend since the global financial crisis but does not reach negative values in the period under consideration (Chart B). Similar discount rates to those generated by the top-down method are seen for the period leading up to the global financial crisis. Despite negative yields on risk-free assets since 2016, the discount rate has not moved into negative territory using the bottom-up method, but it has remained below 1% since 2015.

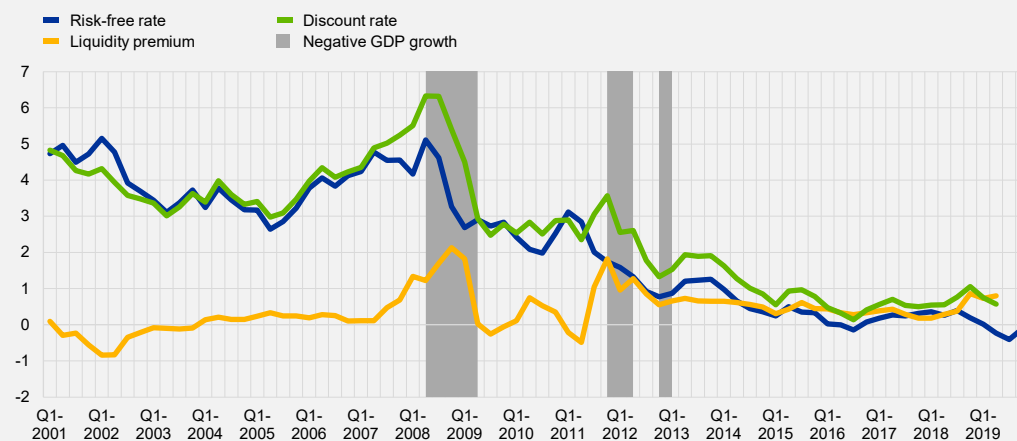
³³ Van Loon et al. (2015) compute an accurate liquidity premium for corporate bonds, but, unfortunately, the underlying data are not available for the whole period 2000-2019.



Chart B

Simulated discount rates according to the bottom-up method

(percentages)



Sources: Bloomberg, ESMA CEREP database, Eurostat and ESRB Secretariat calculations.

Note: Grey shading indicates periods with negative real GDP growth rates for the EU.

The importance of unobservable components of the discount rates under both methods has become more apparent in a low interest rate environment (Chart C).

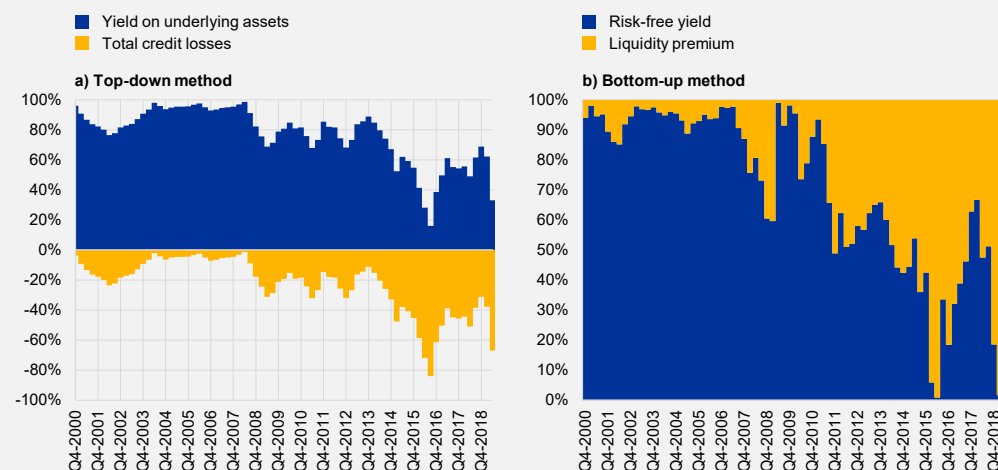
While the yields of corporate bonds and of risk-free assets can be directly observable in financial markets, credit losses (expected and unexpected) and the liquidity premium can only be approximated. With the decline in interest rates since 2008, the relative weight of the unobservable components in the computation of the discount rate has been continuously increasing. This is particularly noticeable in the bottom-up approach, where the liquidity premium has consistently accounted for more than 50% of the discount rate since 2013, while the weight of expected and unexpected credit losses has remained around 40% in the top-down method over the same period.



Chart C

Weight of observable components (blue bars) and unobservable components (yellow bars) in the determination of discount rates under the top-down and bottom-up methods

(percentages)



Sources: Bloomberg, ESMA CEREP database, Eurostat and ESRB Secretariat calculations.

In a low interest rate environment, the discounted value of insurance liabilities is higher and the behavioural response of insurers may have consequences for financial stability. Such a behavioural response may include portfolio adjustments in order to affect discount rates according to IFRS 17. For the bottom-up method, insurers have a very low starting point (risk-free rates) and, at the same time, enjoy ample discretion to compute the illiquidity premium. Besides, the related financial assets may not be sufficient to cover the illiquidity premium. In the case of the top-down method, insurance corporations may decide to invest in financial assets with higher yields (and higher risk) in order to have a higher starting point in the computation of the discount rate.³⁴ In both cases, a possible outcome would be an increase of investments in illiquid assets, which would have a higher liquidity premium and could typically generate higher yields. In combination with the ample discretion allowed by IFRS 17, and looking at the sector as a whole, this behavioural response could lead to large cross-sectoral heterogeneity in the computation of discount rates and ultimately in the valuation of insurance liabilities, thereby hampering the comparability of financial statements across insurance corporations. To illustrate how different discount rates could lead to materially different insurance liabilities, Chart 3 shows the value of insurance liabilities associated with hypothetical cash flows of 100 currency units (CU), distributed equally across ten years, according to different discount rates. With a discount rate of 1%, the related insurance liabilities would be 94.71 CU (red bar in Chart 3). A discount rate of 0% (yellow bar) would lead to insurance liabilities

³⁴ However, IFRS 17.B81 does not clearly stipulate that insurance corporations must hold the assets in the reference portfolio.

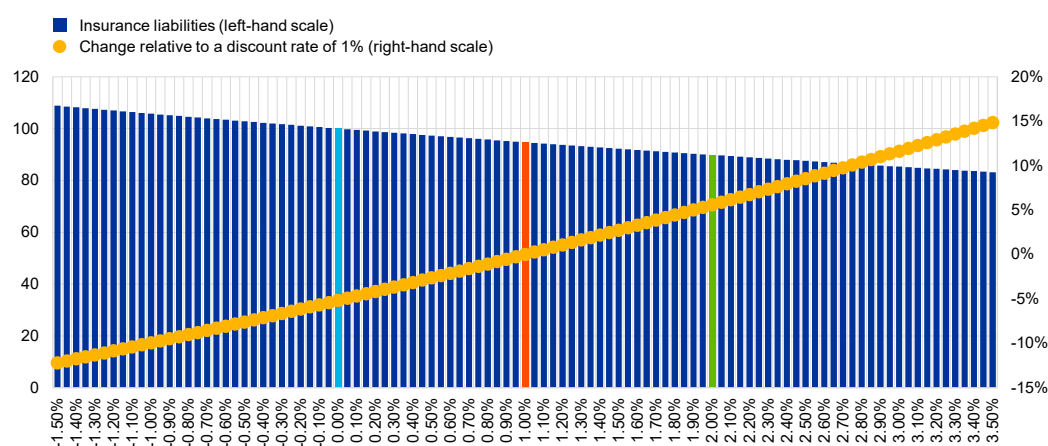


of 100 CU, while a discount rate of 2% (green bar) would result in insurance liabilities of 89.83 CU. These variations, in the order of 5%, are merely the result of using different discount rates. The use of materially different discount rates could thus distort the information on insurance liabilities in financial statements, which would not be fully comparable. In the worst-case scenario, the use of discount rates unrelated to the prevailing market rates could lead to a misvaluation of liabilities and to inaccurate information in the financial statements of insurance corporations.

Chart 3

Insurance liabilities recognised in the balance sheet at different discount rates

(left-hand scale: currency units; right-hand scale: percentages)



Source: Author's elaboration.

Notes: The blue bars represent the discounted value of hypothetical cash flows of 100 CU, maturing over ten years (at 10 CU per year), discounted using different discount rates (along the x-axis). The orange line represents the relative difference, using the value of insurance liabilities at a 1% discount rate as benchmark.

There is a theoretical expectation that the top-down approach would yield more cyclical discount rates than the bottom-up approach, but no evidence is available to confirm this.

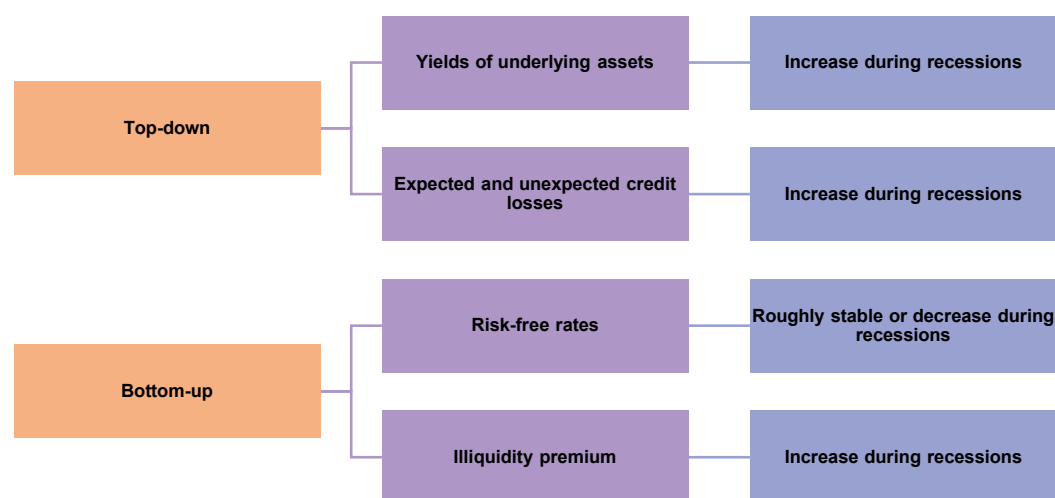
Conceptually, risk premia (the difference between corporate bond yields and risk-free rates) should increase during recessions and remain low in normal times.³⁵ Both liquidity premia and credit losses increase during recessions and remain relatively low under normal market conditions. Therefore, there could be a theoretical expectation that the top-down approach for the determination of the discount rate would lead to a more procyclical valuation of insurance liabilities (Figure 4). Illiquidity premia tend to increase during recessions (see Box 1) and risk-free rates remain stable or even decrease, leading, theoretically, to an increase in discount rates during recessions and lower valuations of insurance liabilities. Under the top-down method, if the increase in yields of the underlying assets were lower in the recession than the increase in expected and unexpected credit losses, the resulting discount rate would decrease, increasing the amount of

³⁵ This would imply that risk-free rates remain relatively stable, while corporate bond yields increase.



insurance liabilities recognised in the balance sheet. The dynamics of discount rates during recessions could have implications for the recognition of losses from insurance liabilities, as contracts may become onerous during recessions. Nonetheless, as IFRS 17 has not been applied yet and Solvency II allows only a bottom-up method,³⁶ there is no evidence available to confirm this theoretical assumption. Moving forward, this would be an important area for accounting enforcers and microprudential supervisors to monitor during the first years of application of IFRS 17.

Figure 4
Theoretical behaviour of top-down and bottom-up discount rates during recessions



Note: The figure illustrates the theoretical behavioural expectations of the variables used in the computation of discount rates under the top-down and the bottom-up approaches.

3.2 Onerous contracts, annual cohorts and risk adjustment

This subsection discusses the financial stability implications of three important features of IFRS 17: (1) the treatment of onerous contracts; (2) the inclusion of a risk adjustment; and (3) the annual cohort requirement.

³⁶ The top-down approach in IFRS 17 has some similarities with the derivation of the volatility or the matching adjustments under Solvency II. However, the conditions in Solvency II are quite restrictive and are allowed to be used under certain circumstances of the insurance corporation (European Insurance and Occupational Pensions Authority, 2018a).



3.2.1 Treatment of onerous contracts

IFRS 17 requires portfolios of insurance contracts to be grouped into (i) contracts that are almost certain to be profitable, (ii) contracts that are almost certain to be onerous (i.e. unprofitable), if any, and (iii) those that are neither (i) nor (ii), if any. IFRS 17 provides a further subdivision of contracts by year of issuance, as part of its “annual cohort requirement”³⁷. Insurers must estimate the fulfilment cash flows associated with insurance contracts in the three categories above, comprising estimates of cash flows, adjustments for the time value of money and financial risks, and the risk adjustment for non-financial risk. To ensure that profit recognition is spread over the period the profit is earned, a CSM is established for contracts in category (i) so that the profit at initial recognition is set to nil. The CSM is then released over the lifetime of the contract according to a pattern that reflects how the contract performs in terms of units of insurance services provided, thereby determining the profit recognition over the service delivery period. To ensure that loss recognition is timely, no CSM is established for contracts in category (ii). Instead, the expected loss is recognised immediately. For contracts in category (iii), a CSM is established over the contract’s remaining lifetime, as long as it is expected to be profitable. However, if the contract becomes onerous, the expected future losses should be recognised, as estimated at that point.

When groups of contracts switch from being non-onerous to onerous, the asymmetry in the recognition of profits and losses over time creates a sudden change in the sensitivity of profits to changes in external conditions. As long as contracts are non-onerous, the recognition of small changes in profitability is effectively spread over the remaining contract service lifetime. Once the contracts become onerous (possibly as a result of relatively minor changes in the macroeconomic environment), the recognition of expected losses in the profit or loss account is effectively immediate.

Consequently, a sudden and massive shift in profit recognition profiles and/or in the sensitivity of such profiles to economic drivers could create “cliff effects”. Previous work by the ESRB has highlighted that some forms of accounting-driven cliff effects can have financial stability implications (European Systemic Risk Board, 2017 and 2019). This can be the case, particularly if the cliff effects incentivise many institutions to behave more procyclically at roughly the same time. In the case of IFRS 17, sudden unanticipated changes in the macroeconomic environment could lead to a large recognition of insurance contracts as onerous across the insurance sector, creating a cliff effect as many insurers would recognise large expected losses over a short period of time.

Regulatory capital requirements for insurers are not linked to IFRS 17 calculations, thereby limiting the potential impact of cliff effects, even if some indirect effects are possible.

Solvency II adopts a market-consistent valuation paradigm, which is independent of the CSM and of profit recognised under IFRS 17. By contrast, under IFRS 9 expected credit losses of banks flow directly through to their available regulatory capital. If insurance regulatory capital requirements are

³⁷ See Annex 1 for a short introduction to the annual cohort requirement.



designed appropriately, and insurers are adequately capitalised, then their IFRS 17 profits should not affect their solvency position (although in some adverse macroeconomic scenarios, equity under IFRS, including the profit or loss for the period, and own funds under Solvency II are to be expected to evolve similarly, exhibiting some correlation). Unprofitable (i.e. onerous) contracts may affect solvency indirectly through changes in technical provisions, which are required at all times. If a group of contracts becomes onerous under IFRS 17, it cannot be ruled out that Solvency II technical provisions will also need to be increased, thereby reducing the solvency (own funds) of the insurer according to Solvency II. Under IFRS 17, this could be seen as a negative signal regarding the soundness of insurance corporations. However, a decline in regulatory capital ratios should not be automatically seen as negative, particularly if the insurer operates a sustainable business model with a positive franchise value, and no supervisory action is required despite adverse market conditions.³⁸ Besides, appropriate disclosures in the financial statements could also discourage insurers from competing on the basis of solvency metrics rather than focusing on their business performance and the level of service delivered to policyholders.³⁹

As a second limiting factor, many insurance contract types have effective service lifetimes that are similar to annual accounting cycles. The cliff effect described above is arguably more relevant for life insurers (in particular, those concentrating on long-term savings business) than for non-life insurers. For example, many non-life and some life and health insurance contracts are subject to annual renewal, and both customers and the insurer can decline to renew. Therefore, at any given valuation point, these contracts may have outstanding service lifetimes of one year or less, meaning that the corresponding profit or loss will have been largely or wholly recognised by the next annual reporting date, whether or not the contract is currently onerous.

Over the longer-term, market confidence in an insurer's profitability should increase, as IFRS 17 seeks to prevent hidden losses and thereby increase transparency. To the extent that the insurer applies IFRS 17, a sudden shift in apparent IFRS 17 profitability or in the sensitivity of this profitability to external drivers could hinder the insurer's ability to release profits and pay dividends, or to raise capital, if it needed to do so.⁴⁰ However, the immediate loss caused by a group of contracts becoming onerous also serves to anticipate future losses, or slow down profit erosion, from that group of contracts. Timely information on the emergence of onerous contracts provides useful information for investors. Especially for contracts with long durations, it is important to separate which groups of contracts contribute to making the business profitable and which ones are loss-making. This feature of IFRS 17 is different from many previous insurance accounting

³⁸ For example, a firm with strong customer relationships and an ability to enter profitable new business with these customers (or to leverage these relationships in other ways) is likely to find it easier to raise capital if it finds itself capital constrained. Potential capital providers are likely to use accounting data, such as stated profitability levels, when deciding whether to support such a business.

³⁹ In other words, strong solvency metrics should be a basic requirement for staying in the insurance business rather than a focus area for competition. Schaeck and Čihák (2012) find that banks tend to hold higher capital ratios when operating in a more competitive environment. Besides, there is evidence of window-dressing behaviours in relation to some banking prudential requirements (Hillier et al., 2008; Owens and Wu, 2012; Behn et al., 2019; Garcia et al., 2021).

⁴⁰ Conditional on national corporate law, the ability to release profits and pay dividends would be determined by a combination of accounting and solvency regimes.



standards and it will need to be taken into account by providers of capital along with accounting and solvency information.⁴¹ Furthermore, while insurance corporations may be able to devise new products with participation rules more aligned to IFRS 17, this may not be possible for products that comprise the majority of existing insurance-based savings in many countries.

3.2.2 The risk adjustment in IFRS 17

On initial recognition, an entity reporting under IFRS 17 needs to measure a group of insurance contracts as the total of their fulfilment cash flows and the CSM. The fulfilment cash flows are based on (i) estimates of future cash flows, (ii) an adjustment to reflect the time value of money and the financial risks related to the future cash flows, to the extent that such risks are not included in the estimates of future cash flows, and (iii) a risk adjustment for non-financial risk.⁴² Regarding (ii), IFRS 17.36 establishes that adjustments relating to financial risks will typically involve the selection of discount rates in a manner that ensures that these discount rates:

- (a) reflect the time value of money, the characteristics of the cash flows and the liquidity characteristics of the insurance contracts;
- (b) are consistent with observable current market prices (if any) for financial instruments with cash flows whose characteristics are consistent with those of the insurance contracts in terms of, for example, timing, currency and liquidity;
- (c) exclude the effect of factors that influence such observable market prices but do not affect the future cash flows of the insurance contracts.

The risk adjustment for non-financial risk – i.e. (iii) above – is the adjustment required to “reflect the compensation that the entity requires for bearing the uncertainty about the amount and timing of the cash flows that arise from non-financial risk”.⁴³

IFRS 17 provides insurers with considerable freedom regarding how their risk adjustments (for both financial and non-financial risks) should be calculated. This contrasts with the Solvency II risk margin concept, which can be viewed as having a somewhat similar conceptual rationale to the IFRS 17 risk adjustments, but the determination of which is precisely specified in the Solvency II Delegated Regulation⁴⁴, given its importance within the overall capital picture of the EU insurance industry. The methodological freedom of IFRS 17 as regards the risk adjustment

⁴¹ In many participating life insurance savings portfolios, national valuation standards and national GAAP are used to calculate realised profits of the investment pool as well as the annual profit participation. Those realised profits under national GAAP may be misaligned with profitability as measured under IFRS 17.

⁴² See IFRS 17.32.

⁴³ See IFRS 17.37.

⁴⁴ **Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (OJ L 12, 17.1.2015, p. 1).**



includes two fundamental management choices: the confidence level for non-financial risk, and the methodologies, inputs and assumptions used to calculate the risk adjustment. Arguably, given a certain confidence level, the compensation required for bearing the uncertainty arising from non-financial risk decreases as the level of aggregation, i.e. the number of contracts considered, increases.

Conversely, from a financial stability perspective, and considering that IFRS 17 does not directly drive regulatory capital positions, a lack of comparability may arise regarding discount rates and non-financial risks across insurance corporations. The issue most likely to lead to a lack of comparability in relation to financial risks is probably how assets' liquidity features are incorporated in liabilities' discount rates (see Section 3.1). Regarding non-financial risks, different confidence levels and/or methodologies chosen by different entities might lead to a lack of comparability in relation to non-financial risk.⁴⁵ Additional reporting expectations may aid users of financial statements to interpret the figures, and good disclosure practices are likely to emerge over time, helping them to understand the methods used for the calculation of the IFRS 17 risk adjustment.

3.2.3 The annual cohort requirement

IFRS 17 stipulates that contracts with similar characteristics should be grouped together and allocated to cohorts that are issued within one year of each other. Like any other IFRS, IFRS 17 is, in principle, designed to allow performance to be fairly reflected on an individual contract basis, while acknowledging that no contract is underwritten in isolation. Typically, that may lead to the presumption that each contract should be treated separately, with losses on individual onerous contracts recognised immediately but profits spread over the service lifetime. Recognising the pooling of risk that is intrinsic to insurance, IFRS 17 allows insurers to group together contracts with similar characteristics for the purpose of projecting cash flows and calculating the risk adjustment, rather than doing so for individual contracts within the group.⁴⁶ The resulting CSM is allocated to contracts in one-year buckets, i.e. annual cohorts.

The requirement to use annual cohorts for intergenerationally-mutualised and cash-flow matched contracts, rather than allowing insurers to group together such policies in multi-year cohorts, has proved contentious in the EU. In general, a requirement to use annual cohorts for standard life contracts with relevant insurance risk could lead to higher variability in profits and losses, as the level of aggregation, i.e. the number of contracts considered, decreases.⁴⁷ In intergenerationally-mutualised contracts, different generations of policyholders (with multiple contracts issued at different times) participate jointly in the returns on a common underlying pool of

⁴⁵ IFRS 17 requires the entity to disclose the confidence level used for the calculation of the IFRS risk adjustment.

⁴⁶ In the Basis for Conclusions on IFRS 17, the IASB acknowledges that it considered the recognition of insurance contracts on an individual basis but gave up this option because it would not provide relevant information.

⁴⁷ This holds even more for small portfolios or low frequency and high severity risks (e.g. catastrophe risks).



assets (or in the insurer's performance). The sharing of risks among policyholders mainly relates to financial risk. In turn, cash-flow matched contracts are long-term savings contracts with life annuities, both immediate and deferred.⁴⁸ These contracts may be eligible for the "matching adjustment" under Solvency II. The matching adjustment is subject to supervisory approval and depends on a fixed investment portfolio that ensures in the long run that the insurance companies are able to cover future capital outflows resulting from their financial liabilities with future capital inflows from their investment assets, not leaving any financing gap. IFRS 17 requires the investment returns on these joint asset portfolios to be assigned to annual cohorts. In its endorsement advice on IFRS 17, EFRAG was unable to reach consensus on whether for intergenerationally-mutualised and cash-flow matched contracts the annual cohort requirement matches the technical endorsement criteria for the adoption of an IFRS in the EU.⁴⁹ Those objecting to the annual cohort requirement argue that it is inconsistent with the way such business is typically conducted (including asset-liability management), and therefore does not represent a meaningful way of recognising profit. Those in favour of the requirement argue that greater clarity over how profits emerge from (annual) cohorts provides valuable information to the management and to users of financial statements. Diverse stakeholders have contributed many different arguments to the discussion on the net contribution of the annual cohort requirement in IFRS 17 (Figure 5).

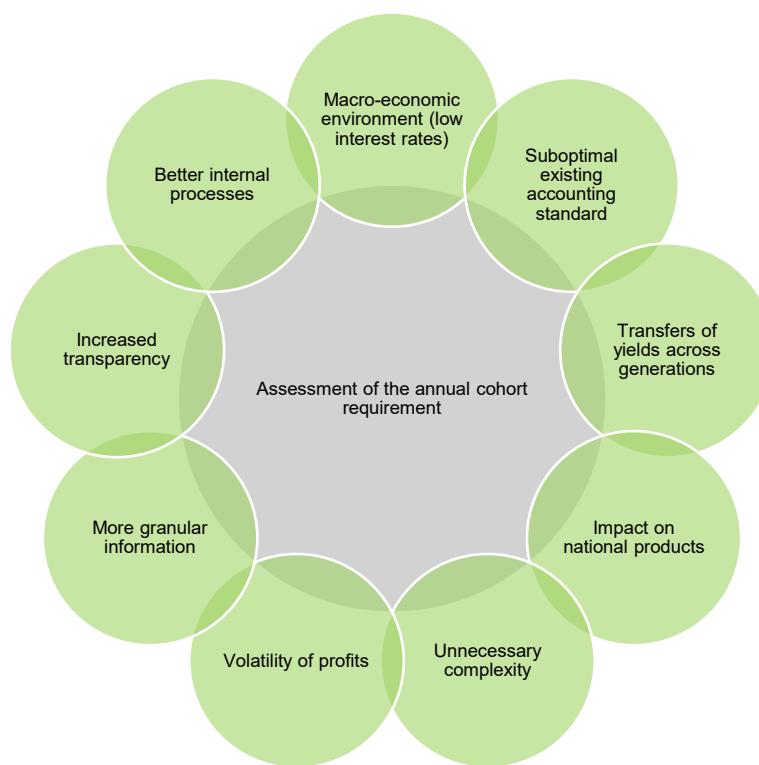
⁴⁸ Cash-flow matched contracts apply an asset-liability management regulated by Solvency II and are associated with a pool of assets. These assets are regulated and, in fact, are mainly public debt. They are managed separately from other assets of the insurance corporation and cannot be used to cover losses from other insurance contracts. This means that the cash flows generated by the entire portfolio of matched assets are used to settle the obligations arising from the insurance portfolio without considering when they were issued. In fact, by using cash-flow matching techniques, insurance group contracts can be issued more than one year apart. For further details, please refer to European Financial Reporting Advisory Group (2021b).

⁴⁹ See the IAS Regulation.



Figure 5

Relevant factors in the assessment of the annual cohort requirement



Source: Author's elaboration.

Note: The factors in the bubbles do not necessarily represent the views of the ESRB on the assessment of the annual cohort requirement from a financial stability point of view.

Applied to some legacy profit-sharing arrangements, the annual cohort requirement may create complexity and make movements in IFRS 17 profits and losses non-intuitive and disruptive when compared to those under IFRS 4. Currently, IFRS 4 allows the continuation of national GAAP practices in the measurement of insurance contracts, which historically reflected countries' agreed rules on the fair sharing of risk and profit in insurance contracts. Although introducing a significant difference to current national accounting practices, the requirement to measure insurance contracts by annual cohorts still allows insurers to reflect the contractual features of participating contracts with mutualisation features.⁵⁰ However, when applying IFRS 17, insurance undertakings have to exercise judgement as to how to reflect these contractual arrangements, including the mutualisation effects and any discretion, in the measurement of profits and losses associated with each annual cohort. The application of IFRS 17 to these legacy insurance contracts could then increase complexity in the financial statements and generate a flow

⁵⁰ See IFRS 17.B67-B71.



of profits and losses over the years that is not necessarily intuitive when compared to the previous accounting treatment under IFRS 4 and may not perfectly reflect the characteristics of the underlying contract.

Intergenerational mutualisation arrangements often have a minimum guaranteed interest rate, and policyholders sometimes also receive a bonus based on the return on the underlying pool of assets less the guaranteed amounts. In some cases, the maximum level of such guarantees can be linked to market conditions at the issuance date of the contract. In other cases, profit-sharing schemes above minimum guaranteed benefit levels allow insurers to smooth the payment of returns to policyholders over several years, working as an intergenerational mitigant. The potential financial stability implications of such guarantees in a low interest rate environment have been highlighted in several reports (European Systemic Risk Board, 2016 and 2021; Committee on the Global Financial System, 2018). Therefore, it needs to be considered whether the required IFRS 17 treatment would typically exacerbate or mitigate this broader issue or lead to other financial stability risks.

From an economic perspective, guaranteed benefits typically provided by insurers to the whole group of policies under a given intergenerational mutualisation could be seen as similar to options. Not to take into account the value of these guaranteed benefits would be undesirable, as this would give insurers inadequate risk management incentives. Under IFRS 17 the measurement of insurance contracts is an expected value of the full range of possible outcomes and, as such, should incorporate the value of guaranteed benefits.⁵¹ Moreover, Solvency II also includes long-term guarantee measures (including a volatility adjustment, the level of the ultimate forward rate (UFR) and the extrapolation methodology used to arrive at that rate) which aim to avoid undue procyclicality arising from shorter-term market volatility.

The impact of the annual cohort requirement on financial stability can be better understood through a non-exhaustive illustrative example. Consider a reduction in the applicable interest rate yield curve. Examples of what might then happen include the following:

- If all policies under a portfolio of insurance contracts were considered as a single cohort (without considering the specific characteristics of the underlying contracts), it is likely that there would be an interest rate level below which essentially all contracts would switch to being onerous, with related expected losses being recognised immediately (at the next reporting date after the event occurred).
- In contrast, if policies were assigned to multiple cohorts, the amount of losses to be recognised upon the cohort becoming onerous would be more spread out over time. In extreme circumstances and after a sufficiently long period of time, all annual cohorts may eventually become onerous (because average market rates are below the guaranteed rates), so the same end result may be reached, even if the loss recognition path would be different.

⁵¹ See IFRS 17.33.



- An intermediate scenario seems more likely, in which some annual cohorts become onerous, but the portfolio as a whole never becomes onerous. Losses on onerous cohorts need to be recognised immediately even though other cohorts are still profitable (for which profit recognition is deferred).

The annual cohort requirement (when averaged across the industry) may tend to bring forward loss recognition relative to the “all at once” recognition pattern that might apply if all policies were allowed to be bundled together as a single cohort.

The annual cohort requirement is intended to ensure timely recognition of expected losses by preventing insurers from offsetting profits and losses across different generations of contracts. It creates the obligation to show losses when they materialise, which may be seen as increasing procyclicality.⁵² Box 2 below provides additional details on how the annual cohort requirement could work for a simplified portfolio of intergenerationally-mutualised contracts. Under cash-flow matching techniques, the cash flows generated by the entire portfolio of matched assets are used to settle the obligations arising from the insurance portfolio without considering when they were issued. Insurers mainly guarantee a long-term fixed interest rate to policyholders that does not change over time, even if market interest rates change. The interest rate guaranteed to the policyholder is set by insurance corporations based on the observable market yield of the investment portfolio assigned for the expected duration of the benefits (life expectancy in life annuities) when the contract is underwritten. Only under exceptional circumstances will the policyholder surrender the policy.⁵³ Moreover, as we have already noted, under Solvency II there is no direct link between IFRS 17 and regulatory capital requirements, but deteriorating conditions could require immediate increases in technical provisions and a reduction in equity (own funds). Under IFRS 17, annual profits are affected by deteriorated market conditions, effectively reducing accounting equity in the following accounting period relative to what it would have been if the contracts had not become onerous.

Box 2

A stylised example of the application of annual cohorts to intergenerationally-mutualised contracts

This box presents a stylised example of how the annual cohort requirement in IFRS 17 could be applied to intergenerationally-mutualised contracts. As documented in Annex 1 of the EFRAG draft endorsement advice, concerns have been raised about the convenience and unintended consequences of applying the annual cohort requirement to intergenerationally-mutualised and cash-flow matched contracts. This stylised example shows the results of applying IFRS 17 to two groups of contracts (Policy A, with an initial premium of 6,000 CU, and Policy B,

⁵² The early recognition of losses may be interpreted as procyclical (deepening the movements in the financial cycle) but also as a prudent accounting policy, moving together with the financial cycle. The issue is clearer for banks, where credit losses are tightly related to the economic cycle.

⁵³ Where this is the case, the surrender value will be closely linked to the market value of the underlying portfolio (i.e. insurance companies do not bear the underlying market risk in the case of a surrender benefit payment). In fact, the matching adjustment has an anticyclical effect, because the matching portfolio helps to mitigate the adverse impact of a low-yield environment.



with an initial premium of 4,000 CU, both providing a 0.5% commission to the insurance corporation) considered separately and pooled together via a segregated fund. The main distinguishing factor between Policy A and Policy B is that the former assumes an investment in a (risk-free) bond with a nominal rate of 4% and has a guaranteed return of 3%, while the latter invests in a (risk-free) bond with a nominal rate of 1% and has a guaranteed return of 0%. This implies that the risk-free interest rate has decreased from 4% to 1% between the issuance of the two groups of contracts. Further methodological information is available in Annex 2.

Considered separately, Policy A and Policy B are in economic equilibrium, although Policy A needs to adjust the present value of its CSM when the risk-free interest rate declines.

Since the first period, Policy A has been delivering cash inflows of 240 CU (derived from the 4% interest rate on the bond) and paying 210 CU (the interest rate on the bond less a 0.5% commission withheld annually by the insurance corporation), generating 30 CU of CSM. When interest rates move from 4% to 1%, the present value of Policy A is readjusted, but the group of contracts remain in equilibrium. Policy B, issued with a 1% interest rate, generates cash inflows of 40 CU (derived from the 1% interest rate on the bond) and payments of 20 CU (after the 0.5% commission is withheld), with 20 CU recognised annually as CSM.

Both groups of contracts can be issued with the condition that they are included in a single segregated fund created to manage them. The insurance corporation may decide to establish a segregated fund to manage the bonds associated with Policy A and Policy B. For simplicity, we assume a combined yield of 2.8%,⁵⁴ resulting from the combination of the two bonds (one of 6,000 CU yielding 4% and the other of 4,000 CU yielding 1%).⁵⁵ As a result, the yield of the segregated fund is below the minimum guarantee of 3% for Policy A. When combining the two groups of contracts, total inflows amount to 280 CU and outflows to 272 CU, with a yearly CSM of 8 CU.

If incorporated into a single segregated fund, assuming that portfolio returns are allocated to the two policies in a certain way, the application of annual cohorts makes Policy A onerous, and expected losses must therefore be recognised immediately, leading to higher profit volatility. The application of the annual cohort requirement implies that the profits and losses associated with Policy A are presented separately from those associated with Policy B, even though the underlying assets of both policies are in the same segregated fund. Assuming an

⁵⁴ IFRS 17 B111 uses the term “fair value returns” instead of “yields”. However, for the purpose of the stylised example, the term “yields” is used.

⁵⁵ IFRS 17 requires the fair value returns to be allocated to each cohort. However, in broad terms, the fair value returns transferred to the policies in the stylised example would be substantially the same as the allocation assumed in the text of IFRS 17. In period $t=0+$ the fund has a fair value of 10,874 CU (fair value of bond A, 6,874 CU, plus fair value of bond B, 4,000 CU). We can assume, in period $t=0+$, that the insurer sells bond A, realising the gain of 874 CU, and buys 6,000 CU of bond B in order to maintain the cash-flow matching for a proper asset-liability management. Policyholders are entitled to receive the realised gains of 874 CU. A straightforward way to allocate these gains to policyholders could be to attribute 175 CU to each year ($874/5$). Then considering the yearly average realised gain (175 CU) plus the yearly accrual of the coupon (100 CU: 1% of the 10,000 bonds), we can expect to transfer to the policies a fair value return of 275 CU per year on average (in percentage terms, 2.75% each year). This is close to the combination of the “actuarial rate of the bonds” (2.8%). Assuming different paths over the five years to allocate the realised gains adds further discretion and strengthens the reasoning underlying the constraints that the annual cohort requirement sets on the allocation of returns across different generations of contracts.

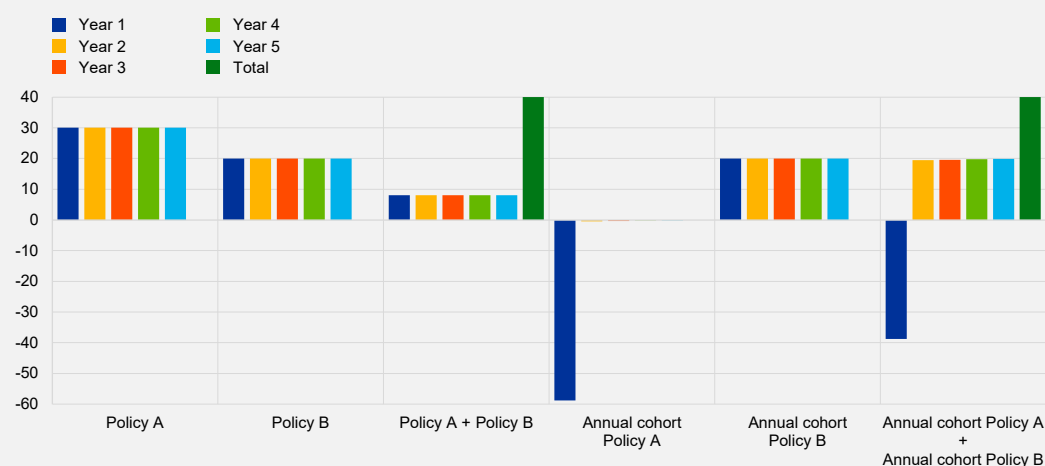


allocation of yields (i.e. fair value returns) from the fund based on the contribution of each group of contracts (60% for Policy A and 40% for Policy B), Policy A becomes onerous and the expected (discounted) losses must be recognised immediately in the profit or loss account.⁵⁶ Policy B remains profitable and in economic equilibrium. In comparison to a situation without annual cohorts, there is higher volatility in profits each year, even if the final profit related to Policy A and Policy B remains the same (Chart A). Financial statements prepared without annual cohorts (applying, for example, IFRS 4) would show a constant profit of 8 CU generated by the two policies over the five years of the segregated fund (Chart A, third column). Financial statements prepared in accordance with IFRS 17 (Chart A, fourth and fifth columns) would show that Policy A is generating losses, all of which are recognised in the first period. The cumulated profit recognised for both groups of contracts after five years is the same (40 CU), but the annual cohort requirement influences how these profits are recognised over time.

Chart A

Profits or losses recognised for Policy A and Policy B, separately and in a segregated fund

(currency units)



Source: Author's elaboration.

IFRS 17 allows significant discretion in how the yield of the segregated fund is allocated across the two groups of contracts and, depending on that allocation, the profitability of annual cohorts may substantially change. In the previous paragraph, the yield of the segregated fund was distributed in proportion to the initial premiums of Policy A and Policy B (60% / 40%). However, IFRS 17 remains open regarding the criteria under which to perform such allocation, and other criteria could be applied on a subjective basis and differently across insurance corporations.

⁵⁶ Other approaches to the implementation of annual cohorts are possible, and they could lead to different results. The purpose of the stylised example is to provide insights on the functioning of the annual cohort requirement, rather than to exhaustively anticipate how the requirement will be applied in practice to already existing insurance contracts.

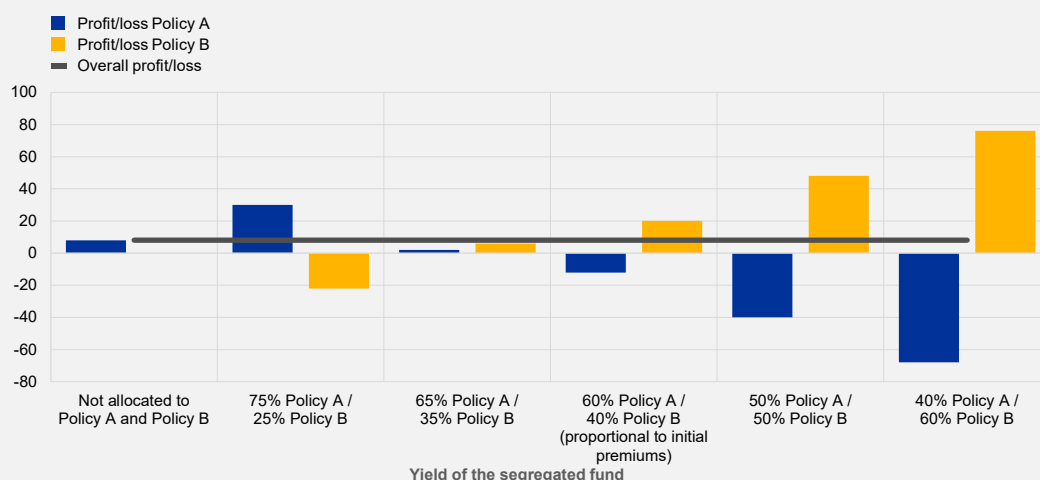


Chart B shows the yearly profit/loss of the entire portfolio and of each policy under different allocations of the yield of the segregated fund. As discussed above, with an allocation of 60% of the yield to Policy A, these contracts would be onerous, but with an allocation of, for example, 65% they would not.

Chart B

Profits or losses recognised for Policy A and Policy B under different allocations of yields of the segregated fund

(currency units)



Source: Author's elaboration.

Notes: The grey line represents the combined profit/loss of Policy A and Policy B, amounting to 8 CU regardless of the allocation of yields of the segregated fund.

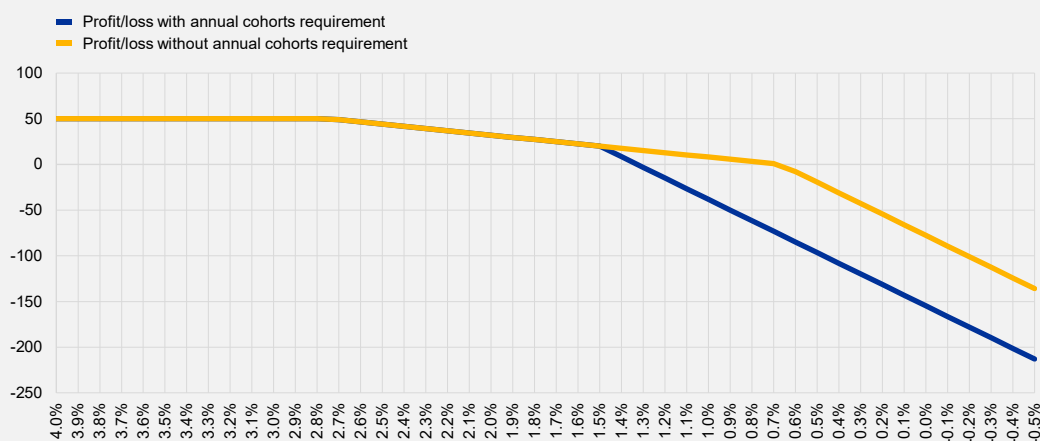
The results presented above are to a great extent determined by the evolution of the risk-free interest rate. In this example, we assumed a sharp decrease in interest rates from 4% to 1%, which determines the profitability of each group of insurance contracts with minimum guarantees. Situations with a more gradual decrease in interest rates or with stable interest rates should lead to a different profile in the recognition of profits and losses from Policy A and Policy B. For example, Chart C shows the result of the profit or loss account in Year 1 under different levels of risk-free interest rate, with and without the annual cohort requirement. A decrease in the risk-free interest rate of 1 percentage point (from 4% to 3%) would have a minimal impact in the recognition of profits in Year 1 with or without the annual cohort requirement. At the same time, the introduction of the annual cohort requirement implies that Policy A becomes onerous after a smaller decrease in the risk-free interest rate than it would without the annual cohort requirement.



Chart C

Profits recognised for Policy A and Policy B in Year 1 under different levels of risk-free interest rate

(x-axis: risk free rate, percentages; y-axis: currency units)



Source: Author's elaboration.

Note: Risk-free rate in period $t=0+$, when Policy B is issued.

Accounting discretion related to the annual cohort requirement could limit the benefits from higher cross-sectoral transparency under IFRS 17. There is some discretion in IFRS 17 as to how joint yields of the underlying portfolios of assets are allocated to the individual annual cohorts.⁵⁷ It has been argued that this accounting discretion could reduce comparability between insurers as a result of the significant role of judgement in the computation of the CSM (Yousuf et al., 2021). However, this possibility needs to be viewed in the context of IFRS 17 generally being considered to offer substantial comparability gains versus predecessor accounting regimes.

These issues related to the annual cohort requirement are to be seen in the wider context of an unresolved tension between reflecting the insurance policy's contractual terms and economic purpose and addressing hidden losses. There is widespread consensus that the current accounting treatment of intergenerationally-mutualised insurance contract liabilities under IFRS 4 does not provide an adequate level of transparency (particularly in view of the prevailing macroeconomic environment of low interest rates). However, a financial stability assessment of the annual cohort requirement in IFRS 17 raises the question of whether the earlier recognition of losses from onerous cohorts is preferable in all circumstances (in other words, whether annual cohorts are the optimal unit of account for all types of insurance contract). On one hand, many insurers consider it unfeasible to reflect the economic purpose and contractual profit-sharing terms

⁵⁷ Under IFRS 17 B70, if an entity is able to identify the change in the underlying items and resulting change in the cash flows only at a higher level of aggregation than the group, the entity shall allocate the effect of the change in the underlying items to each group on a systematic and rational basis.



of such contracts if policies need to be grouped into annual cohorts, with the potential in certain circumstances (and depending on the exercise of accounting discretion) to increase volatility of profits. On the other hand, using annual cohorts (as opposed to combining all contracts within a given profit participation arrangement into a single cohort) may lead to the surfacing of hidden losses on older contracts, otherwise unprofitable contracts or contracts with overly costly guarantees or terms. Besides, volatility in profits would transparently reflect market conditions in a year, and it would be detrimental if these were not reflected in the accounting profit or loss (through profit smoothing). However, others argue that the allocation to cohorts seems complex and artificial for some existing insurance products and may not exhibit accounting neutrality in the case of insurance products to be developed in the future.⁵⁸ It should be noted that issues concerning the regulation of guaranteed insurance products fall outside the scope of this report.

3.3 Interaction with IFRS 9

Given its coverage of financial assets, the interaction of IFRS 9 with IFRS 17 is important for the financial stability assessment of IFRS 17, although concerns are limited to the general model. To be able to meet the obligations derived from their insurance contracts (recognised as liabilities in their balance sheet), insurance corporations are large investors in financial assets. An important area of potential financial stability concern refers to possible mismatches in the way financial liabilities, under IFRS 17, and financial assets, under IFRS 9, are accounted for. Among the three approaches to the recognition of insurance contract liabilities (the general model, the variable fee approach and the premium allocation approach), concern focuses on the general model, as the variable fee approach includes changes in the fair value of contracts' underlying items in the measurement of the CSM, and the premium allocation approach is optional (European Financial Reporting Advisory Group, 2020).

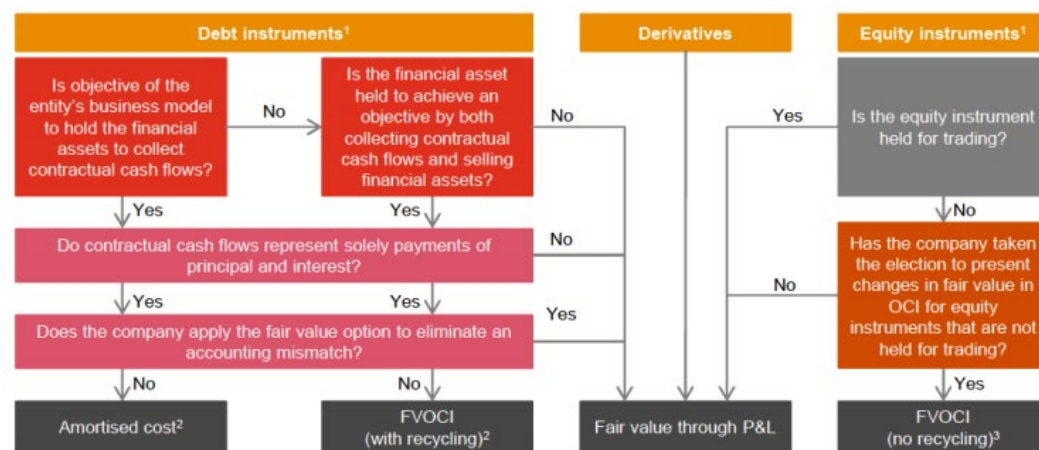
If insurers make use of the fair value option, financial assets under IFRS 9 will be measured at fair value, with gains and losses recognised in profit or loss (Figure 6). In the case of debt instruments, IFRS 9 allows their measurement at fair value in order to eliminate an accounting mismatch between the financial asset and related financial liabilities (fair value option). In such cases, debt instruments held solely for the collection of principal and interest (SPPI) conditions are measured at fair value, with gains and losses recognised through profit or loss. In the absence of the fair value option, debt instruments held under SPPI conditions and not held for sale would be valued at amortised cost or at fair value through OCI, and would be subject to the expected credit loss model of IFRS 9 for the computation of potential impairment losses. Equity instruments, which represent a smaller share of the balance sheet of insurance corporations, could be expected to be valued at fair value through profit or loss. It is unclear whether insurance corporations would make

⁵⁸ For example, it could be argued that if insurers that currently apply cash-flow matching adjustment need to apply the annual cohort requirement in IFRS 17, contracts with guaranteed interest rates (or the products to which such guarantees are attached) may disappear in the medium-term as a result of the accounting treatment imposed on them by IFRS 17.



use of the option to recognise fair value movements through OCI when there is no recycling of accumulated gains or losses.⁵⁹

Figure 6
Overview of measurement of financial assets under IFRS 9



¹ Distinction between debt and equity instruments as defined in IAS 32.

² Impairment considerations apply.

³ Expect most insurers not to use the FVOCI option for equities given inability to recycle gains and losses on sale to P&L.

Source: PricewaterhouseCoopers (2020).

Note: FVOCI is "fair value through OCI"; P&L is "profit and loss".

A mismatch between the accounting treatment of financial assets and the accounting treatment of the related insurance liabilities according to IFRS 17 could lead to higher variability in profits, but the conditions leading to a widespread mismatch are not easily identified.

In principle, there should not be much space for large and cross-sectoral accounting mismatches between insurance liabilities and the related financial assets if insurance corporations decide to use the fair value option. However, insurance corporations may opt for a valuation of debt instruments at amortised cost or at fair value through OCI, even when that decision implies the application of the impairment model in IFRS 9 (with significant data and modelling requirements). In particular, measurement of debt instruments at fair value through OCI may also be expected because (i) it is how most insurers currently measure their portfolios of debt instruments, (ii) it would avoid volatility in the profit or loss account, and (iii) insurance corporations are familiar with using complex models to value their assets and liabilities. In the case of equity instruments, not being able to recycle potential gains and losses recognised in OCI upon disposal of the asset could drive insurance corporations towards valuation at fair value through profit or loss. While

⁵⁹ Recycling is the process whereby gains or losses are reclassified from OCI (as a component of equity in the balance sheet) to the profit or loss account as an accounting adjustment. Gains or losses are first recognised in OCI and then also recognised in the profit or loss account in a later accounting period. Through recycling, the same gain or loss is reported in the total comprehensive income of two different accounting periods and in colloquial terms is said to be "recycled".



mismatches between financial assets measured at amortised cost and financial liabilities measured according to IFRS 17 can be expected to emerge, the circumstances under which similar mismatches may appear when financial assets are valued at fair value through OCI are less straightforward.

The measurement of financial instruments according to IFRS 9 and insurance liabilities according to IFRS 17 is unlikely to lead to a large sector-wide reallocation of assets.

Under IFRS 9, for both debt and equity instruments measured at fair value, fair value gains or losses are recognised either in profit or loss or through OCI. Meanwhile, unrealised fair value gains on equity instruments cannot be recycled through profit or loss upon derecognition if the insurer has elected to measure such instruments at fair value through OCI. A massive reallocation from debt instruments to equity instruments solely as a result of the application of IFRS 17 and IFRS 9 therefore seems unlikely. Furthermore, since measuring equity instruments at fair value through OCI does not allow recycling, this asset type may become less attractive for insurance corporations. Similarly, reallocations to other assets, such as real estate, may occur but should not be widespread. Some asset reallocations and changes in the characteristics of investments have been observed in recent years and can be expected in the future, but they are mostly associated with the prevailing low interest rate environment (European Systemic Risk Board, 2015; European Insurance and Occupational Pensions Authority, 2020b).

IFRS 17 is not expected to restrict the availability of hedging but does not solve existing issues around hedging that go beyond accounting.

There is concern in parts of the insurance industry that the implementation of IFRS 17 could negatively affect the availability of hedging as a risk mitigation tool. However, provided that the conditions in IFRS 9 are met for each individual item to be hedged (according to IFRS 9 6.4.1), there seems to be no case where the application of IFRS 17 could impair the ability of insurance undertakings to hedge risks. On the other hand, hedging is usually imperfect, and existing issues about the reflection of hedging transactions in accounting (for example, IFRS do not allow certain hedging transactions to be accounted for as hedging) are likely to remain under IFRS 17.

3.4 Reinsurance

While reinsurance is seen as an activity that distributes risks, reinsurers have often been deemed to contribute to systemic risk, as they may not be able to fully absorb the tail losses stemming from exogenous shocks, which could then cascade through the insurance sector.

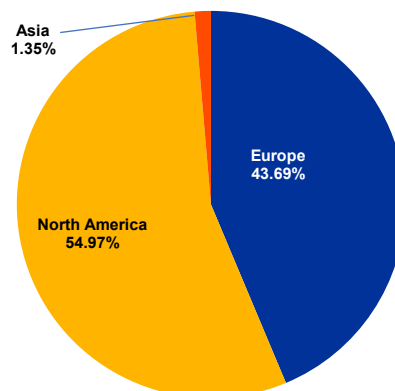
Like primary insurance companies, reinsurers apply a business model based on an inverted production cycle (International Association of Insurance Supervisors, 2012; US Federal Insurance Office, 2014). The contractual premium payments of policyholders allow for a stable cash flow, while the law of large numbers makes variations in the pattern of actual losses more predictable. Reinsurance can then reduce the risk of insolvencies of individual insurers, having a certain counter-systemic component. Reinsurers exploit diversification benefits and are subject to the same principles of provisioning and asset-liability matching as primary insurers. However, unlike primary insurance, reinsurance is a business-to-business relationship, and this critically determines the underwriting and risk management approaches. Chart 4 shows the distribution of reinsurance activities across the world, revealing a strong predominance of European and North American



jurisdictions. Finally, reinsurance tends to concentrate on non-life business lines, with a minor role played in life insurance (according to data from EIOPA, approximately two thirds of gross reinsurance premiums written relate to non-life insurance and one third to life insurance).

Chart 4

Assumed reinsurance by region at the end of 2018



Source: International Association of Insurance Supervisors (2019).

Note: Based on Table 4.2a in International Association of Insurance Supervisors (2019).

Several factors act as in-built circuit breakers in the reinsurance sector, limiting the potential for systemic risk.

While the insurance and reinsurance sectors share some of the drivers of fragility present in other parts of the financial system, such as inherent information asymmetries or the inter-temporal nature of contracts, the balance sheet of reinsurers does not typically exhibit high leverage or maturity mismatches. Reinsurers also exhibit limited interconnectedness among themselves (even if interconnections with primary insurers are strong). In addition, reinsurers have little incentive to cede parts of their business to competitors, which, coupled with the strong competition in most insurance markets, results in limited interconnectedness and high substitutability, with some exceptions connected mainly to excess of loss (XL) retrocession spirals. Furthermore, reinsurance recoverables are adequately spread globally, both among reinsurers and through the market for insurance-linked securities (ILS), which exploits the low correlation between reinsurance liabilities. The ILS market is experiencing growing demand, although it is still small in comparison to other securitisation markets. Risk retention, as well as supervisory oversight focused on appropriate underwriting and sound risk management, contribute to curbing any feedback and amplification mechanisms and the non-linearity that characterises wholesale financial activities. Solvency ratios have remained stable and high, even in the wake of extreme loss scenarios resulting from natural catastrophes, the massive cancellation of



events or widespread business interruption, which tend to be followed by sharp rate hikes for related coverage but seldom give rise to broad-based global reinsurance rate increases.⁶⁰

From a financial stability perspective, the accounting of reinsurance contracts under IFRS 17 should contribute to a fair presentation of reinsurers' risk exposures. In this context, IFRS 17 should enable reflection and public disclosure of specificities that characterise reinsurance activities and risk management processes, as it seeks to accommodate and better capture the uncertain and long-term contractual obligations and the resulting lapse between collection of premiums and payment of claims. By providing reliable estimates of future liabilities, financial statements could deliver a more credible picture of the financial position and profitability of reinsurers, including in cases where reinsurers offer services that transcend traditional reinsurance, such as the underwriting of credit default swap (CDS) protection.⁶¹ In this regard, IFRS 17 provides for an explicit measurement of insurance risk from the perspective of the reinsurer and considering all market inputs. From the perspective of the insurer, reinsurance contracts held explicitly reflect the risk transferred to the reinsurer.

However, concerns have been raised that IFRS 17 may not appropriately capture the economics of certain aspects of reinsurance contracts held, leading to further complexity of financial statements. Some argue that provisions in the standard do not distinguish between different economic circumstances or different rationale for taking up reinsurance. While at times performance could be better reflected by deferring reinsurance gains, in cases where the purpose of reinsurance is precisely to cover losses on the underlying contracts, IFRS 17 can lead to differences in treatment between onerous insurance contracts and the corresponding reinsurance contracts held, preventing immediate and simultaneous recognition of losses from the former and profits from the latter.

Furthermore, in the European context, there are differences in the treatment of reinsurance contracts in Solvency II and IFRS 17. While in Solvency II measurement is consistent with the underlying contracts issued, IFRS 17 applies the measurement model separately to the reinsurance contract held, albeit with assumptions and inputs that are consistent with those used to measure the underlying insurance contracts. Under Solvency II, the amount recoverable from reinsurance contracts held is calculated consistently with the boundaries of the insurance or reinsurance contracts to which those amounts relate. Provided certain conditions are met, insurers and reinsurers may recognise future cash flows arising from the future reinsurance contracts that replace reinsurance arrangements expiring or terminated before the end of the underlying contract boundary in relation to obligations already recognised in the balance sheet. Under IFRS 17,

⁶⁰ This was the case in 2019 and the beginning of 2020, with moderate price increases in regions and lines of business affected by catastrophes. The impact of COVID-19 on the sector is still uncertain, but profitability is likely to be affected through both investment and underwriting results. Price falls in equity markets and low interest rates are compounded by rising claims in affected lines of business, such as cancellations or postponements of major events, casualty business, commercial and professional liability and workers' compensation. In this context, reinsurers' solvency ratios have remained well above regulatory requirements, with growth in traditional reinsurance capital coupled with a decline in alternative capital, including ILS issuance, amid heightened volatility.

⁶¹ CDS are financial guarantees and, as such, should be accounted for under IFRS 9.



consistent assumptions are used to estimate the present value of the future cash flows for the group of reinsurance contracts held and the group of underlying insurance contracts, but it may be argued that the substantive right to receive services from the reinsurer ends when the reinsurer has a substantive right to terminate the coverage, or has the practical ability to reassess the risks transferred, and can therefore set a corresponding price or level of benefits for the contract. In that sense, the contract boundary of the reinsurance contract held may not be consistent with the contract boundary of the underlying insurance contract. Due to the net presentation of reinsurance held, the Solvency II risk margin of the underlying contracts is reduced for the effects of reinsurance, with the risk-mitigating effect of reinsurance resulting in a lower risk margin, reflective of the value required for another undertaking to take over and meet the insurance and reinsurance obligations. By contrast, under IFRS 17 the risk margin of the reinsurance asset is determined by the risk transferred from the underlying insurance contracts. This divergence may give rise to differences between the amounts and performance of the reinsurance recoverable and the ceded insurance liability.

Altogether, IFRS 17 provides a more realistic valuation of reinsurance than IFRS 4 in the balance sheet of insurers and reinsurers, as it reflects underlying economic changes and the particular nature of each contract. It also allows profit to accrue consistently over the contractual service period. It thus has the potential to contribute to effective financial reporting, which in the case of financial institutions helps to identify the magnitude of ultimate risk exposures. Importantly, the disclosures required in IFRS 17 should make it possible to determine whether insurance/reinsurance risk sits on the balance sheet of the insurer/reinsurer or has been transferred.⁶² As IFRS 17 incorporates a forward-looking perspective, it also forces reinsurers to consider the impact of changing underwriting patterns and economic, competitive and market conditions, preventing mispricing of risk and over-optimistic expectations that can lead to inappropriate retrocessions or risk transfers.

At the same time, effective financial reporting contributes to the discharge of the stewardship responsibilities of those entrusted with the reporting entity's governance, and to a sound allocation of resources and transparent markets. In complex organisations such as insurers and reinsurers, there is a reinforcing feedback loop between appropriately designed and effective controls on which financial statements rely and risk management mechanisms, so effective financial reporting also contributes to better management of risks, which is key to the safety and soundness of individual insurers and to financial stability. Moreover, the accounting treatment of reinsurance in IFRS 17 can contribute to a sound allocation of resources and transparent markets, including ILS markets, activating investor discipline and enabling the adoption of prompt measures by managers and, where necessary, corrective action by supervisors to avert individual crises. This may in turn pre-emptively discourage the build-up of unsustainable positions

⁶² Under IFRS 4, insurers must disclose information that helps users understand the amounts in the insurer's financial statements that arise from insurance contracts and information that helps users to evaluate the nature and extent of risks arising from insurance contracts. IFRS 17 expands and adds new disclosure requirements for reinsurance contracts held (see Annual Reporting, 2019).



fuelled by unrealistic prospects (“hard markets” according to the terminology used in the insurance underwriting cycle).⁶³ Generalised over-optimism could trigger procyclical contractions of reinsurance capacity, potentially affecting economic activity, so realistic, economically-driven financial reporting of reinsurance contracts contributes to a more stable financial system.

⁶³ The insurance underwriting cycle comprises periods of hard markets, during which capacity grows until reaching a peak, which marks the beginning of a decline towards a period of soft markets. During soft market periods, underwriting capacity decreases (due to lower investment returns) and competition across insurers is hampered, leading to an increase in premium rates and subsequently to greater underwriting profitability, followed by a movement back towards a hard market period. For further information, see Weiss (2007) and European Central Bank (2008).



4 Conclusions and policy considerations

In general, IFRS 17 is expected to bring substantial benefits to financial stability in the EU, mainly through the transparency channel. By fostering comparable accounting practices and by increasing transparency in the insurance sector, IFRS 17 addresses the shortcomings of the current accounting standard for insurance contracts (IFRS 4). That is particularly important in a macroeconomic environment that is highly challenging for insurance corporations. Through the transparency channel, the adoption of IFRS 17 is expected to provide more accurate and timely information to users of financial statements, which they can use to make informed economic decisions. IFRS 17 can also encourage insurance corporations to avoid overly risky behaviours and transactions, such as situations in which losses are not immediately recognised or remain “hidden”. In addition, the requirements in IFRS 17 may push insurance corporations to improve internal processes, including enhancing their internal risk management frameworks. At the same time, IFRS 17 is not found to exacerbate systemic risk in the insurance sector through any of the channels previously identified by EIOPA and the ESRB.

However, this report has identified some features of IFRS 17 that deserve particular attention in the implementation of the standard in order to ensure its financial stability benefits. While they should not be understood as formal ESRB warnings or recommendations, as defined in Article 16 of the ESRB Regulation⁶⁴, the analyses and actions described in the paragraphs below are important to ensure a sound implementation of IFRS 17 in the EU, allowing the EU financial system to reap the related financial stability benefits.

Compared to IFRS 4, the implementation of IFRS 17 can be seen as a paradigm shift, and its design provides European insurers with the opportunity to reap efficiency gains from the implementation of Solvency II. Insurance corporations in the EU have already made a major effort to apply Solvency II in terms of internal processes, data and governance. Although Solvency II requires its own balance sheet and does not use IFRS 17 as a starting point for the computation of capital requirements, there are several areas in which the two frameworks share commonalities and synergies with Solvency II may help ease the implementation of IFRS 17, even if there is not a perfect match between the requirements in Solvency II and those in IFRS 17. These synergies have been found to be more important in the areas of cash flows, discount rates and risk adjustment (European Insurance and Occupational Pensions Authority, 2018a).

The significant weight of the unobservable component of discount rates under IFRS 17 may require close attention from audit firms, accounting enforcers and (microprudential) supervisors. In a low interest rate environment, the weight of the observable component in discount rates is small, whether computed under the top-down or the bottom-up approach. That

⁶⁴ Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board (OJ L 331, 15.12.2010, p. 1).



automatically increases the importance of the unobservable component (expected and unexpected credit losses, liquidity premium), which, by definition, is subject to greater discretion and judgement. Therefore, auditors, accounting enforcers and insurance (microprudential) supervisors should pay particular attention to the way discount rates are determined by insurance corporations, as discount rates are key in determining the carrying amount of insurance liabilities. As noted above, synergies with Solvency II are possible in this area, but other potential actions include: (i) setting up well in advance audit expectations regarding the computation of discount rates; (ii) issuing concrete practical guidelines on how to compute expected and unexpected credit losses and the liquidity premium; (iii) considering a benchmark exercise across insurance corporations, similar to the one on IFRS 9 launched by the European Banking Authority; and (iv) setting out expectations on appropriate disclosures around the assumptions behind the computation of discount rates.

The breadth of possible accounting policies permitted by IFRS 17 for the calculation of the risk adjustment could hamper the comparison of the financial position, performance and risk exposures of insurers across countries and sectors.

As mentioned in Section 3.2.2, the risk adjustment includes two fundamental management choices that are key in determining the carrying amount of insurance liabilities: the confidence level for non-financial risk, and the methodologies, inputs and assumptions used to calculate the risk adjustment. Synergies with Solvency II are also possible in this area (European Insurance and Occupational Pensions Authority, 2018a). Other potential policy actions regarding the risk adjustment in IFRS 17 could include: (i) issuing concrete practical guidelines on how to compute the risk adjustment; (ii) considering a benchmark exercise across insurance corporations; and (iii) setting out expectations on appropriate disclosures around the assumptions behind the computation of the risk adjustment, in particular with reference to the confidence level and the level of aggregation at which it is calculated. The guidelines could also elaborate on how to compute the risk adjustment for non-financial risk from the perspective of the individual insurer as well as from the level of the consolidated group, as diversification may take place at higher levels than the individual insurer.

The annual cohort requirement has been widely discussed during the endorsement process, with conflicting views about whether it adequately reflects the contractual features of all insurance contracts, and an optional exemption has emerged as a solution to move forward with the implementation of IFRS 17 in the EU.

Whereas insurance contracts with minimum guarantees are challenged in a low interest rate environment and yields from investments related to contracts issued in periods of higher interest rates are transferred to newer contracts, there have been conflicting views about whether benefits from the adoption of the annual cohort requirement might always outweigh costs. The current accounting standard, IFRS 4, does not provide the required level of transparency around these contracts, but certain stakeholders are concerned about unnecessary complexity and volatility resulting from the annual cohort requirement, and about the impact it may have on certain lines of business at national level. They consider that the annual cohort requirement reflects neither the current business model of the insurers nor the legal and contractual features of their intergenerationally-mutualised and cash-flow matched contracts. The final endorsement advice from EFRAG revealed the divided opinions on this requirement across the EU and on whether it can have a positive impact on the EU insurance sector. As a result, the endorsement of IFRS 17 in the EU, which was finalised in November 2021, includes an optional exemption for the annual cohort requirement.



Depending on the number of contracts potentially within its scope, a voluntary optional exemption from the annual cohort requirement has the potential to negatively affect the increased transparency brought by IFRS 17, in turn affecting its expected positive financial stability impact. Given that full adoption of IFRS 17 as issued by the IASB was not possible in the EU due to severe concerns about the annual cohort requirement, a voluntary optional exemption has been designed, potentially affecting around 70% of total life insurance liabilities in the EU.⁶⁵ According to data from EIOPA, technical provisions for life insurance business excluding health, index-linked and unit-linked business, amounted to €4.65 trillion at the end of 2019. From a financial stability perspective, the voluntary nature of the exemption could limit the expected positive impact of IFRS 17 on transparency, as some insurers may decide to apply IFRS 17 in full and others may opt for the exemption. Over the long term, it is possible that market discipline (possibly in conjunction with a shared view on methodologies for allocating cash flows of the returns on the underlying pool of assets among different generations of contracts) could also push insurance corporations to move towards full implementation of IFRS 17 over time, as this could be perceived as a signal of confidence or strength.⁶⁶

The overall effects of the exemption will need to be closely monitored by relevant stakeholders to detect any unintended consequences and to take possible remedial action where necessary. Introducing a review clause in the exemption is welcome but may need to be complemented by additional monitoring initiatives. Indeed, relevant authorities should monitor closely the effects of the exemption on financial stability, particularly in the areas of cross-sectoral transparency and a level-playing field in capital markets. The fact that the scope of the exemption refers to a substantial share of life insurance contracts – an activity heavily affected by the low interest rate environment and for which enhanced transparency could be especially relevant – could justify this additional effort. The proposed exemption requires only qualitative disclosures and not a quantitative estimate of its impact, thus affecting the possibility for market participants to have information on life insurance contract liabilities prepared under a unique set of accounting rules across all European insurers. Exploring ways to understand how similar insurance contracts are measured across EU insurers (applying full IFRS 17 or making use of the exemption) could be important for financial stability⁶⁷ and to ensure accounting neutrality in this area.⁶⁸ There are several factors that could explain differences in the measurement of similar insurance contracts

⁶⁵ See recital 10 of [Commission Regulation \(EU\) 2021/2036 of 19 November 2021 amending Regulation \(EC\) No 1126/2008 adopting certain international accounting standards in accordance with Regulation \(EC\) No 1606/2002 of the European Parliament and of the Council as regards International Financial Reporting Standard 17](#).

⁶⁶ This would ultimately depend on how market participants assess the use of annual cohorts in the accounting of insurance contracts. A negative assessment of the annual cohort requirement could push insurers to make use of the optional exemption. In the case of cash-flow matched contracts, adopting the annual cohort requirement could lead to material changes in the way insurers manage their assets and liabilities.

⁶⁷ An issue to be further explored, but not discussed in this report, concerns which types of institutions (microprudential supervisors, accounting enforcers, etc.) could conduct such an exercise, according to their respective legal mandates.

⁶⁸ As discussed in Section 2, accounting neutrality refers to an unbiased accounting representation of the underlying economic reality which, therefore, does not influence the decision-making processes of economic agents. The annual cohort requirement (and the optional exemption) may not exhibit accounting neutrality in relation to insurance products to be developed in the future, as their accounting treatment under IFRS 17 could influence the decisions taken on the launch of new insurance products.



(accounting standard used, characteristics of the national insurance products, discount rates, allocation of yields in segregated portfolios, etc.), which highlights not only the practical difficulties in undertaking this exercise in practice but also the relevant insights to be gained from the exercise.⁶⁹ Under no circumstances should the exercise implicitly require insurers that have opted for the exemption to apply the annual cohort requirement. Furthermore, the design of new insurance products and how they would be accounted for under IFRS 17 (including the optional exemption) could be monitored as well.⁷⁰

⁶⁹ In this regard, benchmarking exercises with hypothetical portfolios and contracts, similar to those conducted for the expected credit loss model in IFRS 9 in the banking sector, could be an interesting avenue for further exploration. See, for example, [IFRS 9 Benchmarking Study by Global Credit Data](#).

⁷⁰ On the issue of the impact of regulation on the design of insurance products, European Insurance and Occupational Pensions Authority (2018a) finds that the introduction of Solvency II did not have any effect on the availability of insurance products.



References

Annual Reporting (2019), “Disclosure requirements IFRS 4 and IFRS 17 – Explanation of recognized amounts from IFRS 4 to IFRS 17”, December.

Behn, M., Mangiante, G., Parisi, L. and Wedow, M. (2019), “Behind the scenes of the beauty contest: window dressing and the G-SIB framework”, *Working Paper Series*, No 2298, European Central Bank, July.

Chong-Tai Bell, M., Windsor, P. and Yong, J. (2020), “Accounting standards and insurer solvency assessment”, *FSI Insights on policy implementation*, No 26, Financial Stability Institute, July.

Committee on the Global Financial System (2018), “Financial stability implications of a prolonged period of low interest rates”, *CGFS Papers*, No 61, July.

Dobler, M. (2020), “The European Union’s endorsement of Amendments to International Financial Reporting Standard 4: an unprecedented ‘top up’”, *The Journal of Corporate Accounting & Finance*, Vol. 31, Issue 3, pp. 190-196.

Ellul, A., Jotikasthira, C., Kartasheva, A., Lundblad, C. and Wagner, W. (2018), “Insurers as asset managers and systemic risk”, *Working Paper Series*, No 75, ESRB, May.

European Central Bank (2006), “Assessment of accounting standards from a financial stability perspective”, December.

European Central Bank (2008), “The insurance underwriting cycle in the euro area”, *Financial Stability Review*, December.

European Financial Reporting Advisory Group (2020), “IFRS 17 and IFRS 9 – Issues Paper”, April.

European Financial Reporting Advisory Group (2021a), “IFRS 17 Insurance Contracts as amended in June 2020 – Final Endorsement Advice – Appendix III”, March.

European Financial Reporting Advisory Group (2021b), “IFRS 17 Insurance Contracts as amended in June 2020 – Draft Final Endorsement Advice – Annex 1 – Application of annual cohorts to intergenerationally-mutualised and cash flow matched contracts”, March.

European Insurance and Occupational Pensions Authority (2017), *Systemic risk and macroprudential policy in insurance*.

European Insurance and Occupational Pensions Authority (2018a), “EIOPA’s analysis of IFRS 17 Insurance Contracts”, October.

European Insurance and Occupational Pensions Authority (2018b), *Other potential macroprudential tools and measures to enhance the current framework*.

European Insurance and Occupational Pensions Authority (2020a), *Financial Stability Report*, December.



European Insurance and Occupational Pensions Authority (2020b), *Impact of ultra low yields on the insurance sector, including first effects of COVID-19 crisis*.

European Insurance and Occupational Pensions Authority (2021), "EIOPA's comments on EFRAG's draft endorsement advice on IFRS 17 Insurance Contracts", letter, January.

European Securities and Markets Authority (2021), "Ref: EFRAG's Draft Letter to the European Commission Regarding Endorsement of IFRS 17 Insurance Contracts as amended in June 2020", letter, January.

European Systemic Risk Board (2015), *Report on systemic risks in the EU insurance sector*, December.

European Systemic Risk Board (2016), *Macroprudential policy issues arising from low interest rates and structural changes in the EU financial system*, November.

European Systemic Risk Board (2017), *Financial stability implications of IFRS 9*, July.

European Systemic Risk Board (2018), *Macroprudential provisions, measures and instruments for insurance*, November.

European Systemic Risk Board (2019), *The cyclical behaviour of the ECL model in IFRS 9*, March.

European Systemic Risk Board (2020a), *Macroprudential implications of financial instruments in Levels 2 and 3 for accounting purposes*, February.

European Systemic Risk Board (2020b), *A system-wide scenario analysis of large-scale corporate bond downgrades – An ESRB technical note*, July.

European Systemic Risk Board (2021), *Lower for longer – Macroprudential policy issues arising from the low interest rate environment*, June.

Federal Insurance Office (2014), "The Breadth and Scope of the Global Reinsurance Market and the Critical Role Such Market Plays in Supporting Insurance in the United States", US Department of the Treasury, December.

Fields, J., Klein, L. and Myskowski, E. (1998), "Lloyd's Financial Distress and Contagion within the US Property and Liability Insurance Industry", *Journal of Risk and Uncertainty*, Vol. 16, pp. 173-185.

Förstemann, T. (2021), "Lethal lapses – how a positive interest rate shock might stress life insurers", working paper.

Garcia, L., Lewrick, U. and Sečnik, T. (2021), "Is window dressing by banks systemically important?", *BIS Working Papers*, No 960, Bank for International Settlements, August.

Hartley, D., Paulson, A. and Rosen, R. (2016), "Measuring Interest Rate Risk in the Life Insurance Sector: the U.S. and the U.K.", *Working Paper*, No 2016/02, Federal Reserve Bank of Chicago, January.



- Hillier, D., Hodgson, A., Stevenson-Clarke, P. and Lhaopadchan, S. (2008), "Accounting Window Dressing and Template Regulation: A Case Study of the Australian Credit Union Industry", *Journal of Business Ethics*, Vol. 83, No 3, pp. 579-593.
- Hombert, J., Möhlmann, A. and Weiss, M. (2021), "Inter-cohort risk sharing with long-term guarantees: Evidence from German participating contracts", *Discussion Paper Series*, No 10/2021, Deutsche Bundesbank.
- International Accounting Standards Board (2007), "Preliminary Views on Insurance Contracts – Part 1: Invitation to Comment and main text", Discussion Paper, May.
- International Accounting Standards Board (2017a), "IFRS Standards and financial stability".
- International Accounting Standards Board (2017b), "Effects Analysis, IFRS 17 Insurance Contracts".
- International Accounting Standards Board (2018), "Conceptual Framework for Financial Reporting".
- International Association of Insurance Supervisors (2012), "Reinsurance and Financial Stability", July.
- International Association of Insurance Supervisors (2019), Global Insurance Market Report.
- International Monetary Fund (2016), *Global Financial Stability Report*, April.
- International Monetary Fund (2017), *Global Financial Stability Report*, October.
- Kubitza, C., Grochola, N. and Gründl, H. (2020), "Life Insurance Convexity", working paper.
- Koijen, R. and Yogo, M. (2021), "The Fragility of Market Risk Insurance", *NBER Working Paper*, No 24182, January.
- Lin, Y., Yu, J. and Peterson, M. (2015), "Reinsurance Networks and Their Impact on Reinsurance Decisions: Theory and Empirical Evidence", *Journal of Risk and Insurance*, Vol. 82, No 3, pp. 531-569.
- Neri, M. (2018), "Level of Aggregation in IFRS 17", *IFRS 17 Insight Series*, Moody's Analytics, May.
- Owens, E. and Wu, J. (2012), "Window Dressing of Short-Term Borrowings", working paper.
- PricewaterhouseCoopers (2020), *IFRS 9 for insurers*, April.
- Schaeck, K. and Čihák, M. (2012), "Banking Competition and Capital Ratios", *European Financial Management*, Vol. 18, Issue 5, pp. 836-866.
- van Lelyveld, I., Liedorp, F. and Kampman, M. (2011), "An empirical assessment of reinsurance risk", *Journal of Financial Stability*, Vol. 7, Issue 4, pp. 191-203.
- van Loon, P., Cairns, A., McNeil, A. and Veys, A. (2015), "Modelling the liquidity premium on corporate bonds", *Annals of Actuarial Science*, Vol. 9, Issue 2, pp. 264-289.



Weiss, M. (2007), "Underwriting Cycles: A Synthesis and Further Directions", *Journal of Insurance Issues*, Vol. 30, No 1, pp. 31-45.

Yeoh, J. (2017), "IFRS 17 Insurance Contracts – A brief history of IFRS 17", presentation given at the Institute and Faculty of Actuaries – IFRS 17 workshop, London, 14 September 2017.

Yousuf, W., Stansfield, J., Malde, K., Mirin, N., Walton, R., Thorpe, B., Thorpe, J., Iftode, C., Tan, L., Dyle, R., Pelsser, A., Ghosh, A., Qin, W., Berry, T. and Er, C. (2021), "The IFRS 17 contractual service margin: a life insurance perspective", *British Actuarial Journal*, Vol. 26, e2, pp. 1-105.

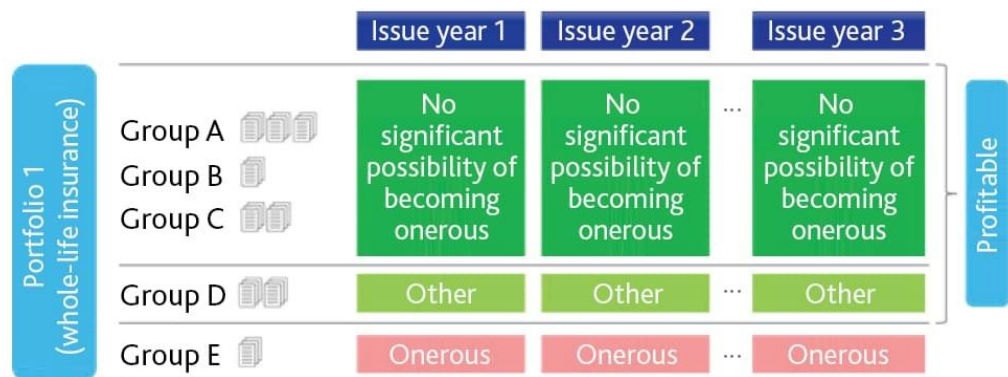


Annex A. Short summary of IFRS 17

IFRS 17 is the new accounting standard of the IASB for insurance contracts. By their nature, insurance contracts combine features of a financial instrument and a service contract and usually extend over long periods of time. An insurance contract is defined by IFRS 17 as “a contract under which one party (the issuer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder” (IFRS 17, Appendix A). In its scope, it covers (i) insurance and reinsurance contracts issued by the reporting entity; (ii) reinsurance contracts held by the reporting entity; and (iii) investment contracts with discretionary participation features issued by the reporting entity if it also issues insurance contracts.

The lowest unit of account in IFRS 17 is the insurance contract, although further aggregations are possible (Figure A1). Insurance contracts are included in a portfolio if they are subject to the same risks and are managed together as a single pool. Portfolios of insurance contracts are divided according to their profitability into contracts that are onerous at initial recognition, contracts with no significant probability of becoming onerous at initial recognition, and remaining contracts in the portfolio (IFRS 17.16). Within each of these groups, insurance contracts are grouped into annual cohorts, with shorter issuing periods also being allowed. No further reassessment of insurance contracts is allowed after initial recognition. The level of aggregation in IFRS 17 is significantly different to that in IFRS 4 and is also different from the aggregations used by insurance corporations for certain groups of contracts.

Figure A1
Aggregation of insurance contracts in IFRS 17



Source: Neri (2018).

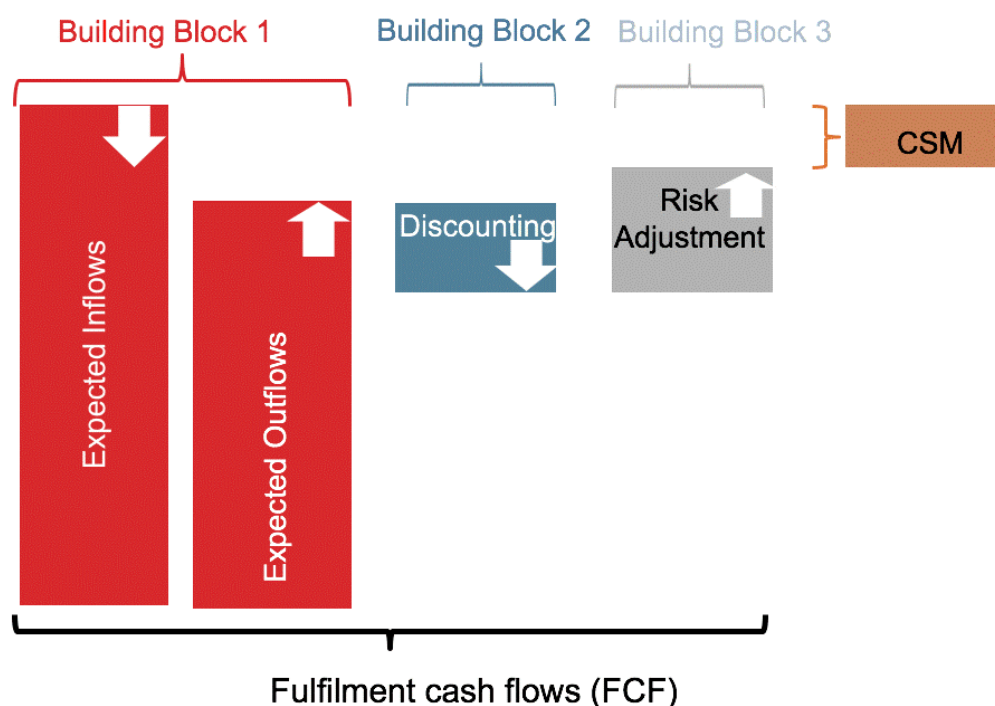
To account for diversity across insurance contracts, IFRS 17 introduces three possible approaches for the accounting of insurance contracts, with the general model applied by default. The general model (building blocks approach, BBA) is based on discounted cash flows with a risk adjustment. The discount rate should reflect current interest rates and should also consider the characteristics of each contract. Profits are deferred through the CSM, which is



amortised over the life of the insurance contract (Figure A2). By contrast, losses are recognised in the profit or loss account as soon as they are expected. Changes in the variables determining the discounted cash flows are treated differently: changes in discount rates can be recognised in profit or loss or in OCI, while changes in cash flows and the risk adjustment related to past and current services are recognised in profit or loss. When the changes to cash flows and the risk adjustment refer to future insurance services, the CSM is adjusted accordingly.

Figure A2

Building blocks in the general model in IFRS 17



Source: *theactuary.net*.

Contracts with direct participation features are accounted for under the variable fee approach (VFA). IFRS 17 defines contracts with direct participation features as those where the policyholder participates in a share of a clearly identified pool of underlying items, the reporting entity expects to pay to the policyholder an amount equal to a substantial share of the fair value returns on the underlying items, and a substantial proportion of any change in the amounts to be paid to the policyholder is expected to vary with the change in fair value of the underlying items. In this case, the general model is applied with the following modifications: (i) the change in the insurer's share of assets is recognised in the CSM; (ii) the accretion of interest on the CSM is at current rates; and (iii) the profit or loss movement in liabilities mirrors the treatment of underlying assets with balance in OCI (if this policy option has been selected).

Insurance contracts with a short-term horizon and little variability can use the premium allocation approach (PAA). For contracts with a time horizon under one year and with little pre-claim variability or for those that can be approximated by the general model, the liability for



remaining coverage is measured as the amount of premiums received net of acquisition cash flows paid, making it simpler than the general model in IFRS 17. The acquisition costs can be recognised as expense.

IFRS 17 has enhanced the presentation of financial statements and how disclosures are made. Balance sheets under IFRS 17 are directly comparable across insurance corporations, overcoming existing issues stemming from the application of IFRS 4 (such as the separate presentation of rights and obligations derived from insurance contracts or the inconsistency in the terminology and valuation of main items). A profit or loss account under IFRS 4 does not allow for easy identification of the sources of profit, whereas under IFRS 17 the profit or loss account should have richer information and more relevant captions. Similarly, the information to be disclosed under IFRS 17 has changed, with different levels of detail than under IFRS 4⁷¹ and specific qualitative and quantitative requirements for the amounts recognised in the financial statements, significant judgements and changes to them, and the nature and extent of risks that arise from insurance contracts.

⁷¹ Annual cohorts are not a unit of disclosure under IFRS 17 but a unit of measurement of insurance liabilities.



Annex B. Additional information on the stylised example of the application of annual cohorts to intergenerationally-mutualised contracts

This annex provides additional information on Policy A and Policy B as used in the stylised example in Box 2.

In period $t=0$, the risk-free discount rate curve is assumed flat at the 4% level and an insurance corporation decides to issue Policy A. Policy A is an endowment-like policy, eligible for the VFA, with an upfront premium equal to 6,000 CU at initial recognition and a maturity of five years. There are no death or survival benefits, no lapses, no expenses and no acquisition costs, so there is no need for a risk adjustment. The initial premium is invested in a bullet bond accounted for at fair value through profit or loss, with a coupon rate of 4% and 240 CU coupons paid yearly over a period of five years. Policy A guarantees a minimum return of 3% per annum paid each year or, if higher, the yield on the investment in the underlying bond net of 0.5% retained by the entity. Therefore, the policy has a foreseeable return of 210 CU (3.5% per annum), as the yield on the bond (4%) net of 0.5% retained by the entity is higher than the minimum return of 3%. Every year profits are distributed to shareholders and policyholders and losses are covered by the shareholders. If no other events occur, Policy A is in economic equilibrium (Table B1).

Table B1
Profit or loss account for Policy A

	Year 1	Year 2	Year 3	Year 4	Year 5
Release of CSM	30	30	30	30	30
Other insurance revenues	0	0	0	0	0
Insurance revenue	30	30	30	30	30
Losses on onerous groups	0	0	0	0	0
Other insurance service expenses	0	0	0	0	0
Insurance service expenses	0	0	0	0	0
Insurance service result	30	30	30	30	30
Investment income	240	240	240	240	240
Insurance financial expenses	-240	-240	-240	-240	-240
Financial result	0	0	0	0	0
Profit/loss for the year	30	30	30	30	30
Accumulated profit/loss	30	60	90	120	150

After more than one year, in period $t=0+$, the risk-free discount rate curve has declined to 1%, affecting the cash flows associated with Policy A, and the insurance corporation issues Policy B. The decrease in the market risk-free rate to 1% implies that the CSM, amounting in



period $t=0$ to $134 \text{ CU} = 6,000 \text{ CU}$ (present value of cash inflows) - $5,866 \text{ CU}$ (present value of cash outflows), is remeasured at $146 \text{ CU} = 6,874 \text{ CU}$ (present value of cash inflows) - $6,728 \text{ CU}$ (present value of cash outflows). If no further variances occur, then Policy A is again in perfect economic equilibrium (Table B2). In the same period, the insurance corporation issues Policy B, which is another endowment-like policy, eligible for the VFA, with an upfront premium equal to $4,000 \text{ CU}$ at initial recognition and a maturity of five years. Like Policy A, there is no need for a risk adjustment, as there are no death or survival benefits, no lapses, no expenses and no acquisition costs in Policy B. The initial premium is invested in a bullet bond accounted for at fair value through profit or loss with a coupon rate of 1% and 40 CU coupons paid yearly over a period of five years. The policy guarantees a minimum floor of 0% or, if higher, the yield on the investment net of 0.5% retained by the entity. Therefore, the policy has a foreseeable return of 20 CU (0.5% per annum), as the yield on the bond (1%) net of 0.5% retained by the entity is higher than the 0% floor. Every year profits are distributed to shareholders and policyholders and losses are covered by the shareholders. With the flat risk-free curve at the 1% level, the VFA CSM amounts to $97 \text{ CU} = 4,000 \text{ CU}$ (present value of cash inflows) - $3,903 \text{ CU}$ (present value of cash outflows). If no variances occur, then policy B is in perfect economic equilibrium (Table B3).

Table B2
Profit or loss account for Policy A, in period $t=0+$

	Year 1	Year 2	Year 3	Year 4	Year 5
Release of CSM	30	30	30	30	30
Other insurance revenues	0	0	0	0	0
Insurance revenue	30	30	30	30	30
Losses on onerous groups	0	0	0	0	0
Other insurance service expenses	0	0	0	0	0
Insurance service expenses	0	0	0	0	0
Insurance service result	30	30	30	30	30
Investment income	942	67	65	64	62
Insurance financial expenses	-942	-67	-65	-64	-62
Financial result	0	0	0	0	0
Profit/loss for the year	30	30	30	30	30
Accumulated profit/loss	30	60	90	120	150



Table B3

Profit or loss account for Policy B, in period t=0+

	Year 1	Year 2	Year 3	Year 4	Year 5
Release of CSM	20	20	20	20	20
Other insurance revenues	0	0	0	0	0
Insurance revenue	20	20	20	20	20
Losses on onerous groups	0	0	0	0	0
Other insurance service expenses	0	0	0	0	0
Insurance service expenses	0	0	0	0	0
Insurance service result	20	20	20	20	20
Investment income	40	40	40	40	40
Insurance financial expenses	-40	-40	-40	-40	-40
Financial result	0	0	0	0	0
Profit/loss for the year	20	20	20	20	20
Accumulated profit/loss	20	40	60	80	100

The insurance corporation could also decide to jointly manage Policy A and Policy B through a segregated fund.

If the insurance corporation decides to set up a segregated fund to jointly serve Policy A and Policy B, the remuneration of both policies would refer to the yield of the segregated fund, composed of two bonds with yields of 4% and 1%, respectively, which amounts to 280 CU, 2.8% = $(6,000 \cdot 4\% + 4,000 \cdot 1\%) / 10,000$ per annum. Consequently, Policy A has a return of 180 CU, 3% per annum, as the yield of the fund (2.8%) is lower than the guaranteed minimum return of 3% (when entering the segregated fund, it loses 30 CU each year), and Policy B has a return of 92 CU, 2.3% per annum, as the yield of the fund (2.8%) net of 0.5% retained by the entity is higher of the 0% floor (when entering the segregated fund, it gains 72 CU each year). Every year profits are distributed to shareholders and policyholders and losses are covered by the shareholders. In period t=0+ the VFA CSM amounts to 39 CU = 10,874 CU (present value of cash inflows) - 10,835 CU (present value of cash outflows). If no variances occur, then Policies A and B, sharing a clearly identified pool of underlying items, are in perfect economic equilibrium (Table B4).



Table B4

Profit or loss account of the segregated fund for Policy A and Policy B, without applying the annual cohort requirement

	Year 1	Year 2	Year 3	Year 4	Year 5
Release of CSM	8	8	8	8	8
Other insurance revenues	0	0	0	0	0
Insurance revenue	8	8	8	8	8
Losses on onerous groups	0	0	0	0	0
Other insurance service expenses	0	0	0	0	0
Insurance service expenses	0	0	0	0	0
Insurance service result	8	8	8	8	8
Investment income	982	107	105	104	102
Insurance financial expenses	-982	-107	-105	-104	-102
Financial result	0	0	0	0	0
Profit/loss for the year	8	8	8	8	8
Accumulated profit/loss	8	16	24	32	40

Applying the annual cohort requirement in the stylised setting implies that Policy A and Policy B cannot be grouped and that Policy A may be recognised as onerous. Keeping the assumptions the same as in the paragraphs above, the insurance corporation allocates the yield of the segregated fund across Policy A and Policy B in proportion to the respective initial premiums: 60% of the yield is allocated to Policy A (168 CU) and 40% of the yield is allocated to Policy B (112 CU). Under this allocation rule, Policy A is onerous (loss-making) and the insurance corporation is not allowed to spread the expected losses for this cohort over time and must recognise the losses immediately. In period $t=0+$, the market risk-free rate is 1%, so the expected losses from Policy A amount to $58 \text{ CU} = 6,524 \text{ CU}$ (present value of cash inflows) - $6,582 \text{ CU}$ (present value of cash outflows). Summing the profits from Policy A and Policy B, we observe a loss for Year 1 that is compensated by higher profits in the subsequent four years (Table B5).



Table B5

Profit or loss account of the sum of Policy A and Policy B using a segregated fund and applying the annual cohort requirement

	Year 1	Year 2	Year 3	Year 4	Year 5
Release of CSM	20	20	20	20	20
Other insurance revenues	0	0	0	0	0
Insurance revenue	20	20	20	20	20
Losses on onerous groups	-58.2	0	0	0	0
Other insurance service expenses	0	0	0	0	0
Insurance service expenses	-58.2	0	0	0	0
Insurance service result	-38.2	20	20	20	20
Investment income	953.4	107	105.3	103.5	101.8
Insurance financial expenses	-954	-107.5	-105.7	-103.7	-101.9
Financial result	-0.6	-0.5	-0.4	-0.2	-0.1
Profit/loss for the year	-38.8	19.5	19.6	19.8	19.9
Accumulated profit/loss	-38.8	-19.3	0.3	20.1	40

The results presented in Box 2 are sensitive to the evolution of interest rates over time.

While the assumption in Box 2 may seem unrealistic at first sight, it depicts a situation where a first group of contracts has been issued in an environment of high interest rates and a second group in a low interest rate environment. The results would significantly change with the assumptions for the risk-free rates. Assuming a slow decrease in risk-free rates, losses from onerous cohorts (derived from policies issued with high interest rates) would be smaller. Slowly increasing risk-free rates could lead annual cohorts of most recent years to become onerous, albeit with small associated losses. Ultimately, profits and losses are crucially also determined by the rule chosen for allocating the yield on the underlying assets and depend on management decisions regarding the amount of the policies that can be underwritten each year.



Imprint and acknowledgements

This report has been prepared by the Exploratory Group on Accounting Developments and Financial Stability, chaired by Luca Serafini (Banca d'Italia), reflecting its discussions on the topic since 2019. Comments and suggestions from members of the Insurance Expert Group (chaired by Patrick Darlap), the Instruments Working Group (chaired by John Fell and Tomas Garbaravicius), the Advisory Technical Committee (chaired by Pablo Hernández de Cos) and the General Board (chaired by Christine Lagarde) are gratefully acknowledged.

The following members of the Exploratory Group contributed substantially to the report:

Samuel Achord

Danmarks Nationalbank, Copenhagen, Denmark; email: sdac@nationalbanken.dk

Nusret Calo

Finanzmarktaufsicht Österreich, Vienna, Austria; email: nusret.calo@fma.gv.at

Alessandro D'Eri

European Securities and Markets Authority, Paris, France; email: alessandro.der@esma.europa.eu

Malcolm Kemp

Nematrian, London, United Kingdom; email: malcolm.kemp@nematrian.com

Pablo Pérez

Banco de España, Madrid, Spain; email: pablo.perez@bde.es

Fabio Polimanti

Istituto per la Vigilanza sulle Assicurazioni, Rome, Italy; email: fabio.polimanti@ivass.it

Antonio Sánchez Serrano

European Systemic Risk Board, Frankfurt am Main, Germany; email: antonio.sanchez@esrb.europa.eu

© European Systemic Risk Board, 2021

Postal address 60640 Frankfurt am Main, Germany
Telephone +49 69 1344 0
Website www.esrb.europa.eu

All rights reserved. Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

The cut-off date for the data included in this report was 30 November 2021.

For specific terminology please refer to the [ESRB glossary](#) (available in English only).

PDF ISBN 978-92-9472-249-2, doi:10.2849/318543, DT-03-21-466-EN-N