Main Impacts of the Introduction of IFRS 17 on the Hungarian Insurance Sector*

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The analysis presents the effects and supervisory experience of the transition to IFRS 17 applicable to the insurance sector from 1 January 2023. The new standard is significant as it sets out a harmonised methodology for insurance contracts based on fair value, which is also the greatest challenge. It is estimated that the sector spent HUF 13.5 billion between 2018 and 2023 to prepare for IFRS 17. Three insurers report under IFRS: the accounting policies of these companies have changed significantly, and the transition has resulted in an overall increase in their equity. Twelve other insurers belonging to international groups prepare IFRS calculations for the group accounts. The application of IFRS 17 mainly affects these entities in terms of business plans and performance measurement. For these institutions, the analysis of IFRS calculations showed that the impact on equity varies in direction and magnitude, but that overall the application of IFRS would result in an increase in equity.

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1. Introduction

One of the newest elements of the International Financial Reporting Standards (IFRS), the international accounting system based on uniform principles, is IFRS 17 'Insurance Contracts', which applies to insurance contracts. IFRS 17 was published by the International Accounting Standards Board (IASB) on 18 May 2017 and amended on 25 June 2020. The date of entry into force was amended several times, and applies from 1 January 2023. It supersedes IFRS 4 and related interpretations. The new standard is a significant step forward as it sets out uniform valuation

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principles for the measurement of insurance contracts (and reinsurance contracts held), unlike its predecessor IFRS 4, which allowed insurance contracts to be measured under previous accounting rules. In line with IFRS principles, the main objective of IFRS 17 is to ensure that companies present insurance contracts fairly in their financial statements on the basis of relevant information.¹

The question arises as to how the Hungarian insurance sector is affected by the application of IFRS 17. The applicability of IFRS is mainly determined by the accounting rules in force in the European Union and in Hungary. Under EU legislation, the application of International Accounting Standards (IAS) is mandatory for the consolidated financial statements of listed (public) companies from the 2005 financial year. EU legislation has also left it up to member states to permit or require companies to prepare their (individual) annual financial statements in accordance with international accounting standards. In Hungary, this is governed by Act C of 2000 on Accounting,² which regulates the scope of entities to which IFRS can be applied (or are applicable) for the purpose of individual reporting. According to the regulation on insurance companies, as of the 2018 financial year, listed insurance companies are required to prepare annual (individual) accounts in accordance with IFRS³ (there is currently one listed insurer on the Hungarian market). In other cases, the use of IFRS instead of Hungarian accounting is optional but not mandatory for insurers. The use of IFRS is not allowed for mutual associations.

In this regulatory environment, three of the 22 insurers in the Hungarian insurance sector (under the scope of Solvency II⁴) currently prepare their financial statements under IFRS. Since 2018, IFRS have been applied by the insurance companies belonging to the CIG Pannónia Group (CIG Group), the Group's parent (listed) insurer CIG Pannónia Életbiztosító Nyrt. (CIG Life Insurance Company) and its subsidiary CIG Pannónia Első Magyar Általános Biztosító Zrt. (CIG EMABIT). Gránit Biztosító Zrt. (until 15 February 2024 Wáberer Hungária Biztosító Zrt., hereinafter referred to as Gránit Insurance) has been preparing its financial statements in accordance with IFRS since 2022. These institutions measure their insurance contracts in

¹ Regulation (EU) 2023/1803, Preamble (4): Commission Regulation (EU) 2023/1803 of 13 August 2023 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council (europa.eu): https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32023R1803

² https://net.jogtar.hu/jogszabaly?docid=a0000100.tv

³ Pursuant to Section 9/A (2) of Act C of 2000 on Accounting: "The annual financial statements shall be prepared in accordance with IFRS (a) by an undertaking whose securities are traded on a regulated market of any Member State of the European Economic Area".

⁴ Solvency II framework: a harmonised prudential framework in the European Union based on Directive 2009/138/EC. The Solvency II framework lays down uniform requirements for the assessment of the solvency position of insurers, corporate governance, and data reporting and disclosure across the European Union (Bora et al. 2016b:89). Currently, 22 Hungarian insurers are covered, except for small insurers covered by Part 6 of Act LXXXVIII of 2014 on Insurance Activities (Insurance Act) (the latter category mainly includes small agricultural insurance associations).

accordance with IFRS 17 from 1 January 2023. The gross written premium of the three institutions accounts for around 5 per cent of the total gross written premium of the sector.

In the case of Hungary, a further specific feature is that most of the 22 insurers belong to listed European insurance groups, which are required by EU regulations to prepare their consolidated financial statements in accordance with IFRS. To do so, they request inputs, i.e. IFRS-compliant calculations, from their subsidiaries. Smaller subsidiaries, whose weight within the group is not material, are not affected, and accordingly in total twelve insurers prepare IFRS calculations for group reporting purposes. The first application of IFRS 17 also had an impact on the activities of these institutions. These twelve insurers account for 88 per cent of the sector's gross written premium. For the other part of the sector, the introduction and application of the new standard has had less impact on daily operations (two of these are insurance associations and therefore cannot apply IFRS).

The Hungarian insurance sector is thus affected by the introduction of the new standard, and so it is no coincidence that a number of domestic and international analyses and papers have recently dealt with the preparation and methodological issues related to IFRS 17, as well as the expected implications of using the new standard. Before the introduction of the standard, Hanák (2017) summarised the main steps in the preparation of IFRS 17, the challenges to be addressed and the most important methodological novelties in IFRS 17. Árendás et al. (2018) addressed the impact of the introduction of the standard on the business operations and financial performance of insurers. In their analysis, they distinguished whether insurers perform IFRS calculations for individual reporting purposes or for reporting to the group, which may lead to different methodological choices (rational simplifications). Most of the studies have highlighted the impact of the transition on, among other things, insurers' strategic planning, the Key Performance Indicators (KPIs) used to measure performance, resource allocation, IT systems, and processes and calculations. Szepesváry (2019) focused on the main actuarial and IT challenges posed by IFRS 17, in particular on the identification and impact of onerous contracts. Palmborg et al. (2021) dealt with the measurement of financial performance of insurers under IFRS and the challenges of calculations in their article. Lakatos (2023) summarised the main ideas of the closing panel discussion of the conference 'Information on the insurance market for lawyers and on insurance law for economists', also focusing on the impact of IFRS 17 on daily business and financial reporting.

In addition to the above, it should be mentioned that the various audit firms have played a significant role in supporting the preparation. A number of studies have been carried out by these companies to assess the preparedness for IFRS 17 and

present the results. Documents on the illustration and interpretation of IFRS 17 financial statements, as well as details on the expected key performance indicators, have also been prepared and used in the writing of this article (*Deloitte 2023; KPMG 2020; PwC 2019*).

In this analysis, we primarily seek to answer the question as to how the transition to IFRS 17 affects the actors in the insurance sector, looking specifically at the main qualitative and quantitative impacts on the three institutions applying IFRS 17 and preparing their financial statements in accordance with IFRS, on the one hand, and on the twelve institutions indirectly affected by the application of IFRS through the group reporting, on the other.

The quantitative analysis focused on the overall impact on the financial situation of insurers. Thus, we focused on the changes in assets, liabilities and equity reported in each system (IFRS, Solvency II and Hungarian accounting). We considered it of particular importance to compare IFRS calculations with those under Solvency II (SII), the European harmonised prudential framework, for the following reasons.

On the one hand, the performance of SII calculations is an important common point between the two sets of institutions (insurers using IFRS for individual reporting and those reporting IFRS data only to the group), so a comparison with this helps to compare results.

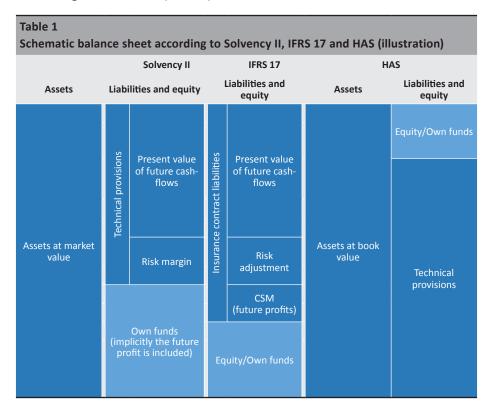
The inclusion of equity under SII is also justified by the fact that the change in accounting equity resulting from the impact of the transition to IFRS 17 is important but is not expected to have a significant impact on the dividend payments of insurers, which will continue to be determined by their solvency level under SII to the extent that the volatility capital buffer⁵ is met.

In addition, it was important to note that IFRS 17 and SII have many similarities in valuation principles and methodology, both based on the fair market valuation of insurance contracts. Similar methodological components are used in the calculation of technical provisions, such as best estimates of future cash flows, discounting and risk margins/adjustments. However, there are also important differences in principle, for example, the IFRS 17 technical provisions – in case of the GMM (General Measurement Model) and VFA (Variable Fee Approach) valuation methods⁶ – is increased by the accrual of expected future profits, the so-called

⁵ According to MNB Recommendation 6/2016, it is recommended that individual insurers maintain a volatility capital buffer of at least 90 per cent over a one-year period to protect against unexpected capital losses.

⁶ The General Measurement Model (GMM) is the basis for measuring insurance contracts under IFRS 17, with certain exceptions. In many cases, the VFA measurement model is applied to life contracts with direct profit-participating, which is mandatory under certain conditions. In the non-life sector, the most common method for valuing insurance contracts is the Premium Allocation Approach (PAA).

CSM (Contractual Service Margin), while in SII future profits of existing contracts are part of equity.⁷ Compared to the Hungarian Accounting Standard (HAS), this is a significant difference for both systems, as future profits are not shown in the HAS accounting balance sheet (*Table 1*).



The significantly simplified, schematic balance sheet presented in *Table 1* illustrates the material difference between the technical provisions under SII and IFRS 17, the inclusion of CSM as introduced by IFRS 17. It is important to point out, however, that the methodologies for calculating the present value of future cash flows and the risk margin in the two systems are different. Hence, their values may differ significantly (which is not illustrated in the table). At the time of writing, information on these differences was available in a report published by the European Insurance and Occupational Pensions Authority (EIOPA) on 15 April 2024. According to *EIOPA* (2024) survey,8 the value of the IFRS 17 technical provisions (present value of future

⁷ Hanák (2017) describes the expected impact of the new standard, the transition issues and the relationship between IFRS 17 and Solvency II.

⁸ The survey covered listed European insurance groups and the reference date for the figures is 30 June 2023.

cash flows and risk adjustment) without CSM is on average 2.5 per cent lower than the value of the SII technical provisions (present value of future cash flows and risk margin). However, there may be differences at the level of individual institutions.

2. Impact of IFRS 17 on insurers applying IFRS

For the three Hungarian insurers that prepare their individual financial statements in accordance with IFRS, the transition to IFRS 17 had a direct impact. We first describe the methodology used to assess the impact of the transition to IFRS 17, followed by the qualitative and quantitative impacts that are more important from a supervisory perspective.

2.1. Impact assessment for institutions applying IFRS

The Magyar Nemzeti Bank (the Central Bank of Hungary, MNB) started to monitor more closely the preparation process for the transition to IFRS 17 at the institutions concerned in 2022. The beginning of the annual reporting period before the date of first-time application of IFRS 17 was 1 January 2022, the reference date for the opening balance sheet prepared by insurers applying IFRS using IFRS 17. The impact of the adoption of IFRS 17 was therefore first analysed and assessed for the opening financial data at the beginning of 2022 (i.e. year-end 2021). These analyses were mainly for internal purposes, and the impacts were not yet published back then.

The impact of the first-time adoption of IFRS 17 is presented in this analysis for the three Hungarian insurers applying IFRS on the basis of publicly available data (due to the small number of insurers involved and data protection considerations). The first publicly disclosed information on the impact of the transition from IFRS 4 to IFRS 17 on the financial position and profitability was included in the financial statements for 2022. However, they mainly focused on the methodological implications of the presentation and application of the new standard and the significant change in accounting policies. In developing their accounting policies, insurers applying IFRS had to perform an analysis of the specific accounting and disclosure differences and then develop their accounting policies to implement IFRS 17. The financial statements for 2022 presented only limited quantitative impacts. One important milestone in this respect was that by 31 May 2024 the audited accounts for 2023 were completed by the insurers concerned, which show the impact of the transition to IFRS 17 in detail.

In the analysis, the main qualitative impacts are highlighted, and the main numerical impacts are presented, taking advantage of the availability of audited data. For 2021 and 2022, we present the impact of IFRS 17 adoption on equity and profit for 2022. We do not attempt to analyse and explain the data in more detail, as this is done by the insurers themselves in their publicly available financial statements.

Finally, the equity under IFRS was compared with the value of equity calculated under SII (excess of assets over liabilities) to examine the consistency between the two valuation methods. In this respect, insurers also conducted their own assessment in the disclosure reports to be prepared under the Solvency II framework. In fact, in Chapter D of the Solvency and Financial Conditions Report (SFCR), they are legally obliged to describe the main differences between the valuation for financial reporting purposes and the valuation under the SII.⁹

2.2. Reporting and disclosure rules under IFRS 17

In general, IFRS financial statements differ substantially from the formal-statutory financial statements prepared in accordance with Hungarian accounting standards. When IFRS are applied, the regulations provide greater freedom in terms of the form of the financial statements and the items to be reported. The statements of financial position and comprehensive income should include material and relevant information and items. One positive outcome of the adoption of IFRS 17 is that the scope of explanations and disclosures on insurance contracts and related accounting is significantly expanded, including explanations of the amounts recognised, significant judgements made in applying IFRS 17 and the nature and extent of risks arising from contracts within the scope of IFRS 17.

Under the previous standard, IFRS 4, the main items under HAS were still included in the accounts of the institutions applying IFRS, due to the identical valuation of technical provisions, but the insurers only presented the items that were relevant to them in a freer, more informal manner. However, when IFRS 17 is applied, the measurement and therefore the scope of the information presented in the financial statements is significantly different, especially with regard to the profit and loss account. The profit and loss account under HAS is based on gross written premium, with the main expenses being claims paid and changes in provisions. However, according to IFRS 17, insurance revenue is the amount that the insurer expects to receive in return for bearing the risk of a group of contracts or for other services provided to the group of contracts (*Hanák 2017*). The insurance revenue is based on the release of the insurance obligation. Expected future profits are released in

⁹ 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) Article 296: https://eur-lex.europa.eu/legal-content/EN/ ALL/?uri=CELEX%3A32015R0035

proportion to the insurance service over the life of the contract, while expected losses are recognised immediately. This means that the overall profit on the insurance contract is the same, but its realisation over time can differ significantly. The interpretation of insurance income and expense under IFRS 17 was presented in detail by $Han\acute{a}k$ (2017), while Mottura's (2021) study examined the timing of the recognition of income and expense in the three systems – SII, national accounting, IFRS 17 – through a simple example.

One important consequence of the transition to new reporting principles, new reporting formats and new disclosure requirements is that the insurers concerned are setting new KPIs to better inform investors and owners (*Kozma 2023:108*). In terms of their composition, there are unchanged indicators (e.g. number of contracts, gross written premiums), variables in terms of content (e.g. combined ratio¹⁰) and new indicators such as CSM, which is an indicator of the future profit potential of the insurer. The new type of performance indicators are expected to be applied not only by the institutions applying IFRS, but may also affect the operations of insurers belonging to groups that report to their parent company under IFRS.

2.3. Supervisory and statistical aspects with entry into force of the new standard

The main purpose of IFRS is to measure the performance of business entities according to the same principles, based on current financial data, allowing comparisons between entities operating in different sectors in different countries, especially for investors. The use of financial reporting for other purposes is pushed to the background, making it difficult to treat the insurance sector as a whole from both a supervisory and statistical perspective.

For insurance companies that do not apply IFRS, Government Decree 192/2000¹¹ determines the structure of the financial statements, balance sheet and profit and loss account and the content of the individual items. For institutions applying IFRS, the structure of the accounts is left to the discretion of the institutions, while taking into account the relevant IFRS rules. From a supervisory point of view, it is important that, as in the sector as a whole, statements of financial position and income are available for institutions applying IFRS and that information on these is available during the year (in the form of quarterly reports). Annexes 6 and 7 of MNB Decree 59/2023 (XI. 24.)¹² contain the supervisory reporting requirements for insurers other than small insurers, with new tables for those applying IFRS. The new reporting

¹⁰ An indicator, mainly used for non-life insurance, comparing claims incurred and expenses incurred in a given year with premiums earned. In simple terms, if the value is below 100 per cent, the business is considered profitable.

¹¹ https://net.jogtar.hu/jogszabaly?docid=a0000192.kor

¹² https://njt.hu/jogszabaly/2023-59-20-2C

tables include the most important items on the financial position and the statement of comprehensive income. On the supervisory side, the risk indicators of insurers applying IFRS have already used this input data starting from 2023 Q1.

In addition, it is important to stress that we also use the data we receive for statistical purposes. The insurance time series published on the MNB's website¹³ also contain information on profitability, where data reported by insurers applying IFRS are also included.

2.4. Impact on equity and profitability (IFRS 17 vs IFRS 4, SII)

For insurance companies that apply IFRS, the most relevant standards are, due to the nature of their activities, those for insurance contracts (IFRS 4, then IFRS 17) and for financial instruments that determine the valuation of their investments (IAS 39, then IFRS 9).

IFRS 17 applies to the valuation of insurance contracts from 1 January 2023. Its predecessor, IFRS 4, established the definition of an insurance contract and set out disclosure requirements,¹⁴ but allowed contracts to be valued under previous accounting rules; accordingly, institutions applying IFRS continued to value their insurance contracts under Hungarian accounting rules. By comparison, IFRS 17 resulted in a significant change, setting out a single set of valuation principles and methodology for the valuation of insurance contracts (and reinsurance contracts held), based on fair value,¹⁵ but which was significantly different from the previous ones (according to HAS).

Investments are measured in accordance with IAS 39 'Financial Instruments: Recognition and Measurement' at fair value in line with IFRS principles (similar to economic measurement under SII¹⁶). Insurers were allowed to continue applying IAS 39 after the entry into force of IFRS 9 'Financial Instruments', which replaced IAS 39. As IFRS 4 did not introduce 'fair value measurement' of insurance contracts on the liability side, insurers were granted a temporary exemption from IFRS 9 until the first application of IFRS 17. Compared to IAS 39, the measurement principle, 'fair value', has not changed as a result of applying IFRS 9.

¹³ https://statisztika.mnb.hu/statistical-topics/supervisory-statistics/iii_-insurance-sector/time-series-of-insurance-companies

¹⁴ By requiring the Liability Adequacy Test (LAT), it has taken the first step towards valuing insurance contracts based on an estimate of the actual cash flow (Hanák 2017:35).

¹⁵ Paragraph 9 of IFRS 13 (Fair Value Measurement) defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

¹⁶ Under Article 75 of the Solvency II Directive, assets are to be measured at the amount at which they could be exchanged between knowledgeable, willing parties in an arm's length transaction. Liabilities are to be measured at the amount at which they could be transferred or settled between knowledgeable, willing parties in an arm's length transaction.

Hungarian insurers have applied IFRS 9 since 1 January 2022 (the year before the mandatory application of IFRS 17). CIG insurers had previously measured their investments according to IAS 39. The impact of IFRS 9 on their accounting policies was significant, but the impact of the transition on equity was not significant due to the same measurement principle (no comparative figures were required). Gránit Insurance has applied IFRS 9 since its transition to IFRS since 1 January 2022, which meant a significant change for the company compared to HAS. It started to measure its securities, which were previously measured at amortised cost, at fair value (the fair value difference in investments was HUF 636 million on 1 January 2021 and HUF –1.7 billion on 31 December 2021). In total, the transition from HAS to IFRS resulted in an increase in equity of HUF 324 million at the beginning of 2021 and a decrease in equity of HUF 1.3 billion at the end of 2021.

IFRS 9 introduced significant changes compared to IAS 39 in the categorisation of investments, the rules for classification and the items to be accounted for (e.g. impairment). It is therefore important to apply the two standards – IFRS 17 and IFRS 9 – together to ensure consistency in the measurement of assets and liabilities.

Insurers already applied IFRS 9 on the asset side before the first application of IFRS 17, and therefore we present the impact directly linked to the application of the new standard, IFRS 17, for the period 2021–2022. Based on the 2022 and 2023 annual financial statements, the main data are summarised *in Table 2*.

Equity in 2021 reflected a significant increase for two out of three institutions due to the transition from IFRS 4 to IFRS 17. For the two institutions, the increase in equity was due to the fact that the value of liabilities decreased more than the value of assets. The change on the liability side was of course driven by the different valuation of insurance contracts.

Table 2
Impact of IFRS 17 on equity and profit for the year, based on the accounts of the institutions applying IFRS

| | IFRS 17 | Change compared to IFRS 4 | | Change compared to SII | | | | |
|-----------------------------------|---------------|---------------------------|-----|------------------------|------|--|--|--|
| | (HUF million) | HUF million | % | HUF million | % | | | |
| Equity/Own funds – 31 Dec 2021 | | | | | | | | |
| CIG Life Insurance | 19,350 | 7,128 | 58 | 232 | 1 | | | |
| CIG EMABIT | 3,689 | -430 | -10 | -594 | -14 | | | |
| Gránit Insurance | 27,587 | 12,107 | 78 | -202 | -1 | | | |
| Profit for the year – 2022 | | | | | | | | |
| CIG Life Insurance | 1,886 | 429 | 29 | n.a. | n.a. | | | |
| CIG EMABIT | -473 | 357 | 43 | n.a. | n.a. | | | |
| Gránit Insurance | 6,220 | 1,222 | 24 | n.a. | n.a. | | | |
| Other comprehensive income – 2022 | | | | | | | | |
| CIG Life Insurance | -1,421 | 2,311 | 62 | n.a. | n.a. | | | |
| CIG EMABIT | 24 | 102 | 131 | n.a. | n.a. | | | |
| Gránit Insurance | -916 | 800 | 47 | n.a. | n.a. | | | |
| Equity/Own funds – 31 Dec 2022 | | | | | | | | |
| CIG Life Insurance | 18,115 | 9,867 | 120 | 446 | 3 | | | |
| CIG EMABIT | 4,239 | 27 | 1 | 193 | 5 | | | |
| Gránit Insurance | 32,891 | 14,130 | 75 | 1,362 | 4 | | | |

Note: n.a. – not applicable

Source: SII data based on SFCR reports for 2021 and 2022 published on the Insurers' website (downloaded on 27 May 2024), Financial Statements data based on reports for 2022 and 2023 downloaded from the Company Information and Electronic Company Registration Service (E-reporting) website of the Department of Justice (downloaded on 4 June 2024)

For 2022, equity under IFRS 17 increased further compared to IFRS 4, mainly due to higher profit and other comprehensive income under IFRS 17 in 2022. The latter item was typically negative in 2022, presumably due to a decrease in the value of investments measured at fair value through other comprehensive income (high yield environment). When IFRS 17 is applied, this is somewhat offset by the effect of the decrease in technical provisions due to changes in interest rates in the context of discounting of provisions, recognised in other comprehensive income, if the OCI option¹⁷ is applied.

Other comprehensive income (OCI) comprises items of income and expense (including reclassification adjustments) that are not recognised in profit or loss as required or permitted by other IFRS. Under IFRS 17, insurers may choose to recognise the effects of changes in financial assumptions (for example, assumptions about rates of return) in other comprehensive income.

The 2022 financial result was higher for all three insurers under IFRS 17, but the return on equity (ROE) decreased for two institutions compared to IFRS 4. The financial reports also show the advantage of applying the new standard in that the performance of each portfolio group is presented in detail (segment by segment). This significantly increases transparency and better understanding of the source of the result.

Table 2 shows the Solvency II value of equity (excess of assets over liabilities). Overall, due to the similarities between the SII and IFRS 17 measurements, we expect that for institutions using IFRS, the consistency between their calculations to comply with the quantitative requirements of the Solvency II framework (economic balance sheet, capital adequacy calculations) and their calculations for financial reporting purposes will be strengthened (SII equity is similar to IFRS 17 equity).

3. Impact of IFRS 17 on insurers using IFRS for reporting to their group

The impact of the transition to IFRS 17 for the twelve insurers that prepare their individual financial statements in accordance with Hungarian accounting standards, but prepare IFRS accounts for the group is mixed. For this group of institutions, we firstly describe the methodology used to examine the effects. We then look at the main qualitative and then quantitative impacts. As only eleven institutions were able to provide reliable data, only their data are presented in the quantitative analysis.

3.1. Assessing the impact on insurers reporting IFRS data to the group

For the twelve insurers concerned, the fact of belonging to the group is the reason for the IFRS calculations. In this case, we first conducted an international outlook to better understand the IFRS-related regulations in the country of the parent company, as this may indirectly affect the depth of IFRS accounting expected of the subsidiaries.

Based on supervisory experience, the first application of IFRS 17 to these institutions also required extensive preparation. They prepared their opening balance sheet for 2022 with the application of IFRS 17 and assessed the impact of the new standard in varying degrees of depth.

In order to assess the impact of the transition to IFRS 17, the MNB performed a questionnaire survey in the spring of 2023 among the most affected (medium and large insurers belonging to groups) insurers, collecting information from twelve affected insurers. This survey also included a request for quantitative data, the main balance sheet and profit and loss data under IFRS accounting for the reference period 2022 year-end. In practice, this meant requesting the main rows of the reporting tables for institutions using IFRS, which are part of the MNB national

reporting, as already mentioned in *Section 2.3*. Eleven insurers were able provide sufficiently reliable data on this.

In presenting the quantitative impacts, we typically rely on aggregate data. Although we analyse similar data as for the institutions applying IFRS, two important differences are worth pointing out here.

On the one hand, for these institutions the base of the comparison is the balance sheet and profit and loss data according to national accounting standards, against which the impact of IFRS is assessed. In this case, therefore, we cannot consider the impact of the application of IFRS 17 in a pure way, because both the asset side (investments, reinsurance contracts held) and the liability side (insurance contracts) are subject to a significantly different valuation compared to the HAS valuation.

On the other hand, during the data analysis, it arose several times that the institutions did not have verified, audited data, and thus the data were provided for information purposes only (in one case, we did not use the data from the institution due to data quality problems). For this reason, this analysis was prepared for information purposes only, which should be taken into account in its possible future use.

It is also worth noting that the reference date of the analysis was the end of 2022, when the hectic macroeconomic environment (unfavourable capital market returns, high yield environment) had a significant impact on the economic valuation (IFRS, SII calculations).

For this group of institutions, we also compared the IFRS data with the Solvency II calculations and examined the results from this perspective as well.

3.2. Belonging to a group – an international perspective

Hungarian insurers are members of German, Dutch, Austrian, Belgian and French (listed) insurance groups, and thus the regulatory environment in these countries has an indirect impact on the detail and depth of IFRS calculations applied by Hungarian insurers.

According to European legislation on the applicability of international accounting systems, Regulation (EC) No 1606/2002¹⁸ requires listed companies to prepare their consolidated accounts in accordance with IFRS. It is the discretion of the Member State to determine whether

¹⁸ Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards (https://eur-lex.europa.eu/legal-content/EN/ TXT/?uri=CELEX%3A32002R1606)

- i. the consolidated accounts of unlisted groups,
- ii. the individual accounts of listed insurers,
- iii. the individual accounts of unlisted insurers can be prepared under IFRS.

Therefore, different rules and requirements have been and are in place in different European countries. The application of IFRS is mandatory in some countries, optional in others or subject to certain exceptions. In 2022, the International Association of Insurance Supervisors (IAIS) published a data table (IAIS 2022) showing the existing arrangements for European countries in applying international standards (Table 3). The table should be read with the caveat that regulations may have changed in the meantime in different countries.

| Table 3 IFRS regulation (EU27) | | | | | | | |
|---------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------|-------|--|--|
| | | Consolidated financial statements – non-listed companies Whether using IFRS is allowed | | | Total | | |
| | | Required | Permitted | No provision | | | |
| Annual financial statements – publicly listed companies Whether using IFRS is allowed | Required | Cyprus, Croatia, Estonia, Greece, Latvia, Lithuania, Malta, Slovenia | Czech Republic, Hungary | - | 10 | | |
| | Permitted | Slovakia | Bulgaria, Germany, Ireland, Luxembourg, Netherlands, Poland | - | 7 | | |
| | No provision | Belgium, Italy | Austria, Denmark, Finland, France, Romania, Spain, Sweden | Portugal | 10 | | |
| Total | | 11 | 15 | 1 | 27 | | |

Note: The table does not show the exceptions and concessions. For example, for the individual accounts of unlisted insurance companies in Hungary, the 'Permitted' category is basically the applicable one. Insurers can choose to apply IFRS, but mutual associations are an exception, which cannot be reflected in the table. The rules for the individual reports of unlisted insurers (category iii) are colour-coded: blue for 'Required', black for 'Permitted' and green for 'No provision'.

Source: Edited by the authors based on IAIS (2022)

Table 3 shows that the regulation regarding unlisted insurers is also significantly influenced by the country's regulation on group reporting and the extent to which IFRS are allowed for individual reporting.

The diversity of the European regulatory environment is clearly visible. In the regulation of individual accounts, the use of IFRS is less of an expectation or option

for unlisted insurers than for listed insurers. The table shows the overall picture at the moment, but it should also be noted that the new standard – IFRS 17 – sets out a common methodology for accounting for the main activities of insurers. This is a significant improvement in the comparability of insurers' results and financial position. This may also mean that in the near future, many countries may review their regulation on the applicability of IFRS, or open up to wider use of international standards.

3.3. Results of the qualitative questionnaire survey

Based on the results of the qualitative questionnaires, the parent-country regulations applicable for the groups have an indirect impact and the governance of the group have a significant impact on local corporate governance, planning and reporting obligations, with significant cost implications, i.e. the effects can be measured and quantified.

The qualitative questionnaire survey covered four main topics:

- 1. Plans for transition to IFRS and current involvement (e.g. disclosure requirements).
- Participation in IFRS 17 calculations and use of the results in the operation of the insurer.
- 3. The resource and cost requirements to prepare for IFRS 17, broken down by cost type, and the workforce capacity requirements. (This issue was also relevant for insurers that apply IFRS; the cost requirement of the transition to IFRS 17 is summarised in *Part 4*).
- 4. Methodologies used in IFRS 17 calculations.

Based on the results of the questionnaires, a possible transition to IFRS is not yet a goal of either parent companies or local entities, but is an issue that is under continuous consideration.

Out of the twelve insurers surveyed, ten provide quantitative and qualitative data to the parent company, mostly on a quarterly basis, but some also provide data on a monthly basis. None of the institutions has a separate unit for fulfilling IFRS 17 reporting obligations, but there are designated persons at each of the main competence levels, and responsibilities have been established. During the preparation and application process, the increase in staffing levels varies from institution to institution, with the highest increase in actuarial, followed by accounting and IT, as these are the main professional areas preparing the IFRS 17 reporting.

Insurers providing data to their parent companies are also actively involved in the calculation of technical provisions under IFRS 17, to varying degrees of depth. Half

of the institutions are less involved in the IFRS 17 calculations, only transmitting the necessary basic data to the parent company, or transmitting IFRS technical provisions calculated with significant simplifications. Three insurers perform detailed IFRS 17 calculations locally, but they also rely heavily on parent company systems.

In terms of dividend payments, only two institutions indicated that IFRS profitability was taken into account, but the impact was considered negligible. A larger impact can be identified in terms of the use of KPIs. Most of the institutions (nine) already use IFRS-based — newly developed — KPIs and four found the impact on their operations to be significant.

According to the survey, the new regulation will significantly change business planning. New planning processes will have to be introduced, and financial plans will be prepared by institutions in line with the new standard. Nine out of twelve insurers use IFRS 17 data in their business planning, with three institutions considering the impact on their business to be material and five considering it to be significant.

The institutions participating in the survey received professional support from the parent company. Mainly, the group is responsible for developing and managing the data collection and the data repository. The dominant role of the parent company is also clearly visible in terms of methodological issues and choices, so the methods used (such as the method of calculating the risk margin) show a mixed picture.

In terms of the measurement methods used in IFRS 17 calculations, the most common method for the measurement of non-life insurance contracts is the premium allocation approach (PAA), which can be used optionally if conditions are met. In many cases, the VFA measurement model is applied to life contracts with direct profit-participating, which is mandatory if certain conditions are met. The GMM measurement model is only used for 0–10 per cent of the portfolio by the majority of insurers (10), and the other insurers use GMM for a part that is well below 50 per cent.

3.4. Impact on equity and profitability (IFRS vs HAS, SII)

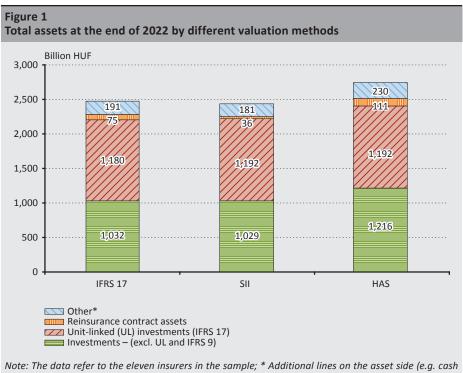
As mentioned in *Section 3.1*, eleven insurers submitted IFRS calculations in the MNB's spring 2023 quantitative survey. The results of this survey are analysed in more detail below. The figures presented refer to the end of 2022 and are for information purposes only.

3.4.1. Differences on the assets side

Under IFRS, the value of total assets (HUF 2,477 billion) is 10 per cent lower than the value of total assets under Hungarian accounting as a result of a significantly different valuation methodology. For investments, IFRS require predominantly market valuation, using (where possible) observable and current market prices

and other parameters, as opposed to HAS valuation, which typically requires book valuation, except for investments linked to unit-linked life insurance. Accordingly, the largest difference is in the financial assets of non-unit-linked investments, ¹⁹ as can be seen in Figure 1: the IFRS value (HUF 1,032 billion) is 15 per cent lower than the HAS value. Not surprisingly, there is no significant difference in the value of investments linked to unit-linked insurance.

A much smaller item than investments (3 per cent of assets under IFRS) is the reinsurers' recoverables (reinsurers' share of technical provisions), where the valuation differences under IFRS 17 and HAS are significant (this item is shown as "reinsurance contract assets" in *Figure 1* and it is also used as "reinsurance contract held"). The impact of this could be significant, especially at the institutional level, for non-life insurers with larger reinsurance exposures. The value of reinsurance recoverables calculated according to IFRS 17 is typically lower or close to the value calculated according to HAS.



Note: The data refer to the eleven insurers in the sample; * Additional lines on the asset side (e.g. cash and cash equivalents, receivables, property for own use, plant and equipment, intangible assets and goodwill, other assets) are included in the Other category.

Source: MNB survey, 2023

¹⁹ A significant portion of non-unit-linked investments is directly invested in government bonds (G. Szabó – Nagy 2021:179).

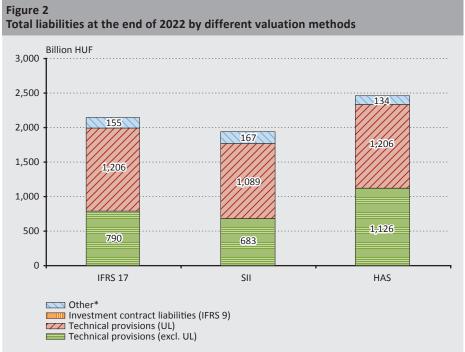
Figure 1 also shows the value of all assets by SII. The two types of valuation are based on a similar methodology for the investments that are dominant regarding the asset side of the balance sheet, and therefore the asset side of the IFRS balance sheet does not differ significantly from the SII balance sheet, as confirmed by the data examined (2 per cent difference). In terms of total asset value, the main difference is in the value of reinsurance contracts held and other assets. Based on the analysis, the value of reinsurance contracts held under IFRS 17 is overall higher than their value under SII.

3.4.2. Differences on the liability side

Based on the aggregate data submitted by eleven insurers, the value of liabilities under IFRS 17 (HUF 2,151 billion) is 13 per cent lower than the value under Hungarian accounting, as shown in *Figure 2*. Technical provisions, which are the most significant item, are typically lower under IFRS 17 compared to a HAS valuation. The primary reason for this is that IFRS 17, like SII calculations, forms provisions on the basis of a discounted best estimate. Overall, for the eleven insurers surveyed, the IFRS 17 technical provisions were lower than the HAS technical provisions, and only one institution had higher IFRS 17 provisions. It is also worth looking at technical provisions separately for life and non-life insurances.

In terms of life insurances, if the current discount rate used in the IFRS 17 calculation is higher than the technical interest rate used in the calculation of the mathematical provisions in national accounting, the value of the best estimate of the future cash flows that form the main part of the IFRS 17 technical provisions is expected to be lower than the value of the mathematical provisions in national accounting.

For non-life technical provisions, the main reason for the discrepancy is the discounting applied to the Liability for incurred claims (LIC), which typically results in lower IFRS 17 claim provisions than the HAS claim provisions (especially in a high yield environment). In addition, the technical provisions under the HAS often include a prudence (safety margin), while IFRS 17 is based on the best estimate (expected value) principle, complemented by a risk adjustment (RA).



Note: The data refer to the eleven insurers in the sample; * The Other category includes additional lines on the liability side (e.g. portfolios of reinsurance contracts held that are liabilities, financial liabilities – loans and financial reinsurance, forward contracts, lease liabilities, trade and other payables, deferred tax liabilities, subordinated liabilities, other liabilities and provisions).

Source: MNB survey, 2023

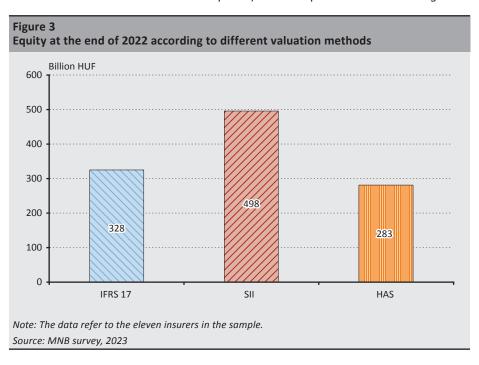
Figure 2 also provides an opportunity to compare IFRS 17 calculations with SII data. Based on aggregated data, the value of liabilities under IFRS 17 is 11 per cent higher than the value of liabilities under SII (HUF 1,939 billion). The methodological basis for the establishment of technical provisions is similar in both systems. The discounted best estimate and the risk margin are used in both systems, but the detailed regulation also contains important differences (e.g. contract boundaries, discount rate used, different grouping of contracts, immediate loss recognition for onerous contracts, methodology for the calculation of the risk margin). The survey found that for the eleven insurers surveyed, the technical provisions under IFRS 17 were higher than the provisions under SII.

The similarities and differences between IFRS 17 and the SII methodology have been explored in several recent studies (*Deloitte 2020*; *PwC 2017*). *EIOPA*'s (*2024*) report on the impact of IFRS 17 analyses the similarities, differences and quantitative impact of the two calculation methodologies on European insurance groups using data with the reference date 30 June 2023. The results of the report also showed

that IFRS 17 technical provisions are typically higher than SII technical provisions for both life and non-life. According to the EIOPA survey, IFRS 17 life technical provisions were 5 per cent higher due to the CSM than SII technical provisions. Apart from that, the SII technical provisions (present value of future cash flows and risk margin) are typically higher than the technical provisions without CSM (present value of future cash flows and risk adjustment) according to IFRS 17. In terms of non-life insurance contracts, the survey showed that the IFRS 17 technical provisions are typically higher than the SII technical provisions. In case of non-life business, the typical technical provisions calculation method for IFRS 17 is the PAA method, and according to the EIOPA survey results, the technical provisions measured in this way are 10.2 per cent higher than SII technical provisions.

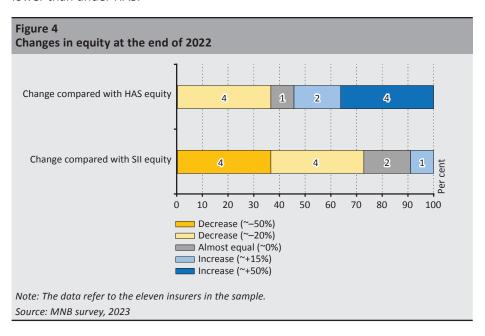
3.4.3. Differences in equity

At the aggregate level, the equity resulting from the application of IFRS was higher than the HAS equity for the institutions under review (as a result of the effect of economic valuation), but lower than the SII equity (the SII equity, available own funds by SII terminology, in this analysis is the excess of assets over liabilities, to which the IFRS net asset value is compared). The comparison is shown in *Figure 3*.



As regards the analysis of equity, it should be stressed that for 2022, the value of equity is analysed according to different valuation methodologies (prudential and two types of accounting valuation). This year was characterised by a high yield environment and negative capital market returns, which had a major impact on valuations based primarily on economic valuation. Overall, as the change in equity is the result of several effects – externalities and institutional characteristics – it is not clear whether the use of IFRS will cause an increase or decrease for institutions in any given year.

Bar 1 in *Figure 4* shows the change in equity compared with equity under HAS, and compared to *Figure 3*, which contains aggregated data, it provides a more accurate picture of the change in equity for the eleven insurers. It can be seen that the significantly different valuation methodologies (involving both the asset and liability sides) make the direction of the equity change clear to a lesser extent in this comparison. In six cases, there is an increase in equity (to a lesser or greater extent), while in four cases there is a decrease. The fact that, according to IFRS, the total value of liabilities (mainly technical provisions) decreases more than the value of assets typically leads to an increase in equity. In addition, the decrease in equity for the other part of the institutions may be due to a more significant decrease in the value of assets under IFRS compared to the value of assets under HAS. Due to the evolution of the economic environment in 2022, the unrealised loss on investments recognised in equity could result in equity that is significantly lower than under HAS.



Compared to SII equity, the direct impact of the application of IFRS 17 is more identifiable in the evolution of equity under IFRS, as the valuation of investments is similar in the two regimes. Compared to SII equity, IFRS equity tends to decrease (*Figure 4*, *bar 2*) in the case of eight out of eleven insurers, while in three cases the IFRS equity is close to the same or slightly higher.

The lower IFRS 17 equity than SII equity experienced by the majority of institutions was mainly attributed to the differences in principle between SII and IFRS 17 valuations. Of these, we would like to highlight the following three differences, which increase IFRS 17 technical provisions (and thus reduce equity).

The IFRS 17 technical provisions are increased compared to the SII technical provisions because in the SII valuation, future profits on existing insurance contracts are included in the technical provisions as a negative item (thus increasing equity). Under IFRS 17, however, future profits are accrued in the technical provisions as part of the liability for remaining coverage (LRC) in the form of CSM, thus increasing the technical provisions. The CSM will not be released immediately, but gradually over the life of the insurance contract.

For the short non-life technical provisions (within the year), insurers applying IFRS 17 use the simplified PAA method in most cases. In this case, the LRC (premium provision) is calculated according to a method similar to HAS for the unearned premium provision (*EIOPA 2024:13*), which typically results in a higher premium provision than the SII one. This is because the SII premium provision includes the (future) expected profit margin for the period from the reference date to the contract end date. This profit brought forward (as a negative technical provision component) reduces the technical provision under SII (*Bora et al. 2016a:22*).

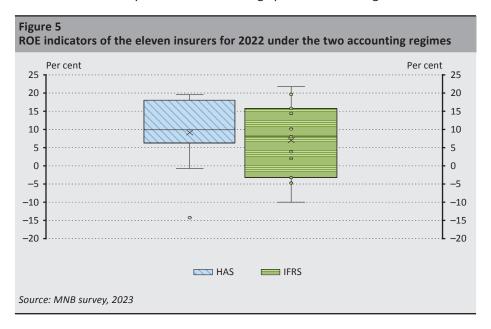
In addition, for IFRS 17, the grouping of insurance contracts during their measurement (GIC, Group of Insurance Contracts) is more granular, it is based on different principles than in the SII measurement that may increase the technical provisions. In grouping, onerous contracts should be valued separately (*Szepesváry 2019:20*) and the loss should be recognised immediately, while future profits are spread over the life of the contract, which also increases the amount of the technical provision to be formed.

3.4.4. Profit or loss

With the application of IFRS 17, the profit and loss account of insurance companies differs significantly from the national accounting statements (a comparison with the SII methodology is not relevant in this case as it is static in nature and does not include income statement recognition).

For profit after tax, a comparison was made between the performance of insurers under IFRS and under national accounting. The ROE indicator for 2022 was used to compare the results calculated using different methodologies. The application of IFRS would have a significant impact on the profit or loss of all institutions, but the impact on financial results varies significantly from one institution to another.

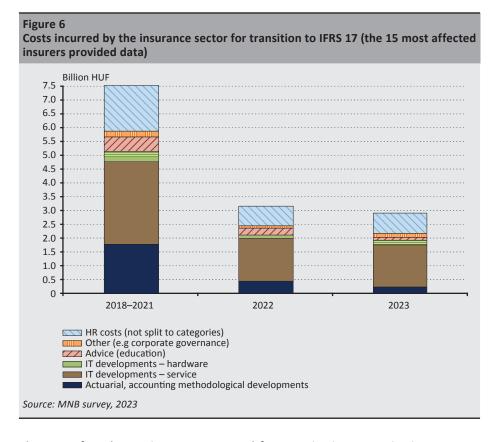
As shown in *Figure 5*, the volatility of ROE increased with the application of IFRS, and overall the survey showed lower average profits when using IFRS.



In terms of profit after tax, seven institutions would have a worse financial result in 2022 under IFRS than their current financial result under national accounting, and two of them would even be loss-making. By contrast, other insurers would see a significant improvement in profitability. From a corporate governance perspective, the higher volatility and significant differences in profitability compared to the HAS financial result is one of the most important impacts.

4. Cost of transition to IFRS 17 (total sector)

The cost of the transition to IFRS 17 for the whole insurance sector was assessed in the spring 2023 data collection, the results of which are illustrated in *Figure 6*.



The cost of implementing IFRS 17 varied from institution to institution, ranging from HUF 38 million to HUF 3.6 billion. Based on *Figure 6*, the responding insurers estimated the total related costs at HUF 13.5 billion (based on 2018–2022 actual and 2023 projected data). The largest cost was for IT developments, which accounted for 50 per cent of the costs incurred (a small proportion for hardware provision and a larger one for services). 18 per cent of the costs were for actuarial, accounting methodological developments and 6 per cent for advice (responding insurers could not provide a breakdown of 21 per cent of the costs, which we mainly considered as the cost of human resource incurred). The most significant costs were incurred in the 2018–2021 period, accounting for 55 per cent of the total cost. In 2022 and 2023, similar costs of around HUF 3 billion were incurred.

5. Conclusions

The quantitative impact of IFRS 17 transition was presented for the three insurers applying IFRS and the eleven insurers reporting under HAS but performing IFRS calculations for consolidated reports. The main results are summarised in *Table 4*.

| Table 4 Main impacts of IFRS 17 on insurers applying IFRS to their individual accounts and preparing IFRS calculations for the group | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--|--|--|
| | | Insurers using IFRS for their individual financial statements | Insurers using IFRS for reporting to their parent institution consolidated financial statements | | | |
| Qualitative aspects | | | | | | |
| Number of | insurers | 3 | 12 | | | |
| Market share (on the basis of gross written premium, GWP) | | 5% | 88% | | | |
| Documentation of IFRS calculations and methods | | Documented in accounting policy | Documented in internal regulation (strong impact of the group policies) | | | |
| Explanation and analysis of results | | Detailed, (compulsory disclosures) | Different depth of analysis | | | |
| Quality | | Audited | Different depth of analysis, mixed, differs from institution to institution | | | |
| Quantitativ | ve impacts | | | | | |
| Number of | insurers (respondents) | 3 | 11 | | | |
| Reference of | date | Year-end 2022 | | | | |
| Macroeconomic environment | | Upward of risk-free interest rate term structure, low returns on capital market | | | | |
| Comparison (accounting) (main items that differ) | | IFRS 17 value compared to IFRS 4 (different valuation of insurance and reinsurance contracts) | IFRS 17 value compared to HAS (different valuation of investments and insurance, reinsurance contracts) | | | |
| Equity/ Own fund | at aggregate level: at institution level: | 77% increase 3 institutions where increase | 15% increase 6 institutions where increase | | | |
| Profit/ result of the year | at aggregate level: at institution level: | 36% increase 3 institutions where increase | 66% decrease 7 institutions where decrease | | | |
| ROE | at aggregate level: at institution level: | 4 ppt decrease 2 institutions where decrease | 7 ppt decrease 6 institutions where decrease | | | |
| Comparison (prudential) | | IFRS17 value compared to Solvency II | | | | |
| Equity | at aggregate level: at institution level: | NO SIGNIFICANT DIFFERENCE 4% increase 3 institutions where increase | 53% decrease 8 institutions where decrease | | | |

In terms of the quantitative impact, the application of IFRS 17 increased accounting equity for 2022 for the three institutions applying IFRS. Due to similar principles, IFRS 17 and SII calculations result in almost identical equity (last row in *Table 4*).

For the eleven insurers that report IFRS data to their parent company, the picture is more varied. In this case, we were not able to assess the impact of IFRS 17 alone (providing comparative data would have been a significant additional burden for the insurers concerned). Here, we compared the IFRS calculations with the HAS values. The results of the survey suggest that there may be significant differences between the balance sheet and profit and loss accounts of these insurers under IFRS and under Hungarian accounting, affecting both the asset side (valuation of investments) and the liability side (valuation of technical provisions). According to *Table 4*, for the eleven insurers concerned, the IFRS equity for 2022 would be higher than the HAS equity in most cases (six cases). The impact on profitability is also highly variable.

The possibility of transition exists for insurers and is currently affecting their operations. The transition should be considered primarily for the medium and large insurers belonging to a group, and is carried out periodically by the institutions. It is therefore worth monitoring the evolution of the balance sheet and profit and loss data of institutions under IFRS 17 and their intention to transition, so that their business decisions are transparent and their market position can be assessed.

Prudential supervision will not be fundamentally changed by the entry into force of IFRS 17. Institutions will still have to comply with the capital requirements calculated under the Solvency II framework, while maintaining an appropriate level of SII own funds (equity). However, from a supervisory perspective, it is also important to monitor and assess the information contained in the accounts of institutions that are applying IFRS and, where appropriate, compare it with the accounting financial position and performance of institutions that apply HAS.

References

Árendás, Á.T. – Orbán, B. – Urbán, D. (2018): Az IFRS 17 hatásai a biztosítók üzleti működésére és pénzügyi eredményére (Impact of IFRS 17 on insurers' operation and financial results). Biztosítás és Kockázat, 5(3): 59–75. https://doi.org/10.18530/BK.2018.3.58

Bora, Z. – Holczinger, N. – Merész, G. – Velcsov, G. – Zubor, Z. (2016a): Az utolsó felkészülési célú Szolvencia II mennyiségi hatástanulmány eredményei (Results of the last preparatory Solvency II quantitative impact assessment). Biztosítás és Kockázat, 3(1): 14–35. https://doi.org/10.18530/BK.2016.1.14

- Bora, Z. Holczinger, N. Nagy, K. Merész, G. (2016b): The insurance sector at a milestone: positive initial experiences with the newly introduced Solvency II system. Financial and Economic Review, 15(4): 88–114. https://en-hitelintezetiszemle.mnb.hu/letoltes/zsuzsanna-bora-norbert-holczinger-koppany-nagy-gabriella-meresz.pdf
- Deloitte (2020): Should insurers leverage Solvency 2 discount rate techniques when valuing insurance liabilities under IFRS17? https://www2.deloitte.com/content/dam/Deloitte/fr/Documents/services-financiers/publications/deloitte_discounting-under-ifrs17.pdf. Downloaded: 6 August 2024.
- Deloitte (2023): Financial KPIs in a IFRS17 World. Deloitte EMEA A&IS Working Group Report. https://www2.deloitte.com/content/dam/Deloitte/il/Documents/audit/2023/ifrs17/KPI-Working-Group-Deloitte-Whitepaper-DKN.pdf. Downloaded: 13 March 2024.
- EIOPA (2024): Report on the implementation of IFRS 17 Insurance contracts. https://www.eiopa.eu/publications/report-implementation-ifrs-17-insurance-contracts_en. Downloaded: 31 May 2024.
- G. Szabó, A. Nagy, K. (2021): *Situation and Financing Capacity of the Hungarian Insurance Market*. Financial and Economic Review, 20(4): 170–1791. https://en-hitelintezetiszemle.mnb.hu/letoltes/fer-20-4-fa3-szabo-nagy.pdf
- Hanák, G. (2017): IFRS 17 ante portas. A biztosítók pénzügyi jelentéseire vonatkozó új nemzetközi szabvány, az IFRS 17 kérdésköre három évvel a bevezetés előtt (IFRS 17, the new international standard for financial reporting by insurers three years before its implementation). Biztosítás és Kockázat, 4(4): 30–51. https://doi.org/10.18530/BK.2017.4.30
- IAIS (2022): Overview of the use of options provided in the IAS Regulation (1606/2002) in the EU. International Association of Insurance Supervisors. https://finance.ec.europa.eu/document/download/1c546870-ee26-4c53-8b12-796bd0b96793_en?filename=ias-regulation-use-of-options-overview en.pdf. Downloaded: 1 March 2023.
- Kozma, N. (2023): "Az együttműködés ereje a biztosítási szerződésekre vonatkozó új nemzetközi beszámolási standard (IFRS 17) bevezetésének tapasztalatai" Interjú Balogh Anikóval, a KPMG Tanácsadó Kft. igazgatójával ('The power of cooperation experience of the implementation of the new international accounting standard for insurance contracts (IFRS 17)' Interview with Anikó Balogh, Director of KPMG Tanácsadó Kft). Biztosítás és Kockázat, 10(3–4): 104–111. https://doi.org/10.18530/BK.2023.3-4.104

- Lakatos, L.P. (2023): IFRS 17 biztosítási szerződések standard: Mi vár a szakmára az új standard bevezetése kapcsán? A "Biztosítási piacról jogászoknak, biztosítási jogról közgazdászoknak" konferencia pódiumbeszélgetésének összefoglalója (IFRS 17 Insurance contracts standard What can the industry expect from the introduction of the new standard? Summary of the panel discussion of the conference 'Information on the insurance market for lawyers and on insurance law for economists'). Biztosítás és Kockázat, 10(3–4): 89–103. https://doi.org/10.18530/BK.2023.3-4.88
- KPMG (2020): Illustrative disclosures for insurers, Guide to annual financial statements *IFRS17 and IFRS9.* https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2020/09/2020-ifs-insurance.pdf. Downloaded: 13 March 2024.
- Mottura, C. (2021): *IFRS17 vs Solvency II and local GAAP approaches to insurance statements:* A case study. Collana del Dipartimento di Economia Aziendale. Working Paper No. 13. https://economiaziendale.uniroma3.it/wp-content/uploads/sites/9/file_locked/2021/02/WP-13 Mottura.pdf. Downloaded: 2 August 2024.
- Palmborg, L. Lindholm, M. Lindskog, F. (2021): Financial position and performance in IFRS 17. Scandinavian Actuarial Journal, 2021(3): 171–197. https://doi.org/10.1080/03461238.2020.1823464
- PwC (2017): *Using Solvency II to implement IFRS 17*. https://www.pwc.pt/pt/industrias/seguros/pwc-using-solvencyII-IFRS17.pdf. Downloaded: 6 August 2024.
- PwC (2019): IFRS 17, Insurance Contracts: An illustration. Financial statements presentation and disclosures. https://www.pwc.com/id/en/publications/assurance/ifrs-17-insurance-contracts.pdf. Downloaded: 23 January 2024.
- Szepesváry, L. (2019): Onerous test, avagy az IFRS 17 szerinti veszteségességi vizsgálat. Aktuáriusi és informatikai kihívások egy életbiztosítási portfólió példáján (Onerous test, or the loss test under IFRS 17. Actuarial and IT challenges through the example of a life insurance portfolio). Biztosítás és Kockázat, 6(2): 18–37. https://doi.org/10.18530/BK.2019.2.18