

Fair Value of Retail Loans: Are We Following IFRS9 or Misinterpreting It?*

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This study examines the accounting treatment applied to retail loans using a multiplication factor of 1.3. Answers are sought to the following questions: What is the correct IFRS accounting treatment of loans with a 1.3 multiplication factor in their interest rate, which have appeared in the Hungarian banking sector since 2016? Does the sector report these loans correctly? Is there a possibility for substance-based accounting treatment? How does the different accounting treatment of identical loan types affect the comparability of banks' financial statements? After discussing the results from the literature and presenting the main features of the loans under review, the methodology of the study is described, before turning to the dilemmas and consequences of the accounting treatment. In this context, the IFRS requirements applicable when choosing the measurement principle for the loans concerned are also analysed. After drawing the conclusions, the paper argues in favour of measurement at amortised cost.

Journal of Economic Literature (JEL) codes: G21, M41, M42

Keywords: bank accounting, IFRS 9, SPPI test, cash flow characteristics, subsidised retail loans

1. Introduction

This study examines the possible accounting treatment applied to retail loans using a multiplication factor of 1.3 in their interest rate, proposing a solution for the method that is considered correct by the authors.

The problem can be attributed to the introduction of IFRS 9¹ in 2018, the requirement to use IFRS for standalone financial statements and the proliferation of such loans in Hungary. This is because IFRS 9 abandoned the requirement of the

* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

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¹ IFRS 9 – *Financial Instruments*. <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02008R1126-20220101&from=EN>. Last downloaded: 5 August 2022.

previous accounting standard (IAS 39) that the originated loans be measured at AC,² where the accounting treatment reliably reflected the characteristics of a basic loan agreement as well as the related estimates of the managers. The new standard introduced a requirement to classify these assets, and today the measurement of financial instruments can only occur on the basis of the measurement principle, either AC or FVTPL,³ which depends on the outcome of the classification, and even loans with the same characteristics may be recognised with a different measurement principle in financial statements, which can alter the range of conclusions that can be drawn from the statements as well as their interpretation.

The entry into force of IFRS 9 in itself would not have affected the entire Hungarian banking sector, but according to Section 9/A of the Accounting Act⁴, all credit institutions must prepare their standalone financial statements in accordance with IFRS, and therefore the rules apply to not only the medium-sized and large banks which were already required to draw up their group financial statements under IFRS, but to the whole sector (*Tarpataki et al. 2022*).

Along with the changes in accounting regulations, the amount and volume of such loans increased considerably, and thus the financial statements of the banking sector can be significantly influenced by differences in measurement. In recent years, the companies that perform the audits for banks have held conflicting views about outcome of the classification of subsidised loans under IFRS 9, and consequently the same loan categories were reported differently in banks' financial statements. This became even more pronounced due to the auditor rotation introduced by the Audit Reform, and there were numerous instances when the old and the new auditor classified such loans differently. Due to the requirement to use different measurement principles,⁵ this sometimes entailed the revision of the financial statements published earlier.

After formulating the research questions, the Hungarian and international literature on the topic is presented, including the legal provisions pertaining to loans, the IFRS requirements and the related studies. The research methodology is then described, before turning to a detailed discussion of the dilemmas and consequences of the accounting treatment, taking a look at the content of the different requirements, interpreting the concepts used in them, highlighting the "legislator's" intentions, and stating the authors' opinion as a way of summarising the previously established findings.

² AC = Amortised cost

³ FVTPL = fair value through profit or loss. The fair value through other comprehensive income (FVTOCI) measurement could only be used for the combination of the above-mentioned classification and a business model that is not typical of loans.

⁴ <https://net.jogtar.hu/jogszabaly?docid=A0000100.TV>

⁵ Of course, institutions are not required to change the measurement principles picked by them based on the auditor's opinion. If the difference caused by the different measurements remains below the materiality threshold, a revision may not be necessary.

Answers are sought to the following questions: What is the correct IFRS accounting treatment of loans with a multiplication factor of 1.3 in their interest rate, which appeared in the Hungarian banking sector in 2016? Does the sector calculate them correctly? How different are financial and economic content and form, and is there a possibility for substance-based accounting treatment? How does the different accounting treatment of the same loan types affect the comparability of banks' financial statements?

2. Overview of the relevant requirements and the literature

2.1. Requirements pertaining to loans

The study looks at the following state-subsidised⁶ retail loans:

- *Prenatal baby support loan* – the interest rate is the five-year government bond rate multiplied by a factor of 1.3 plus 2 percentage points (or 1 percentage point in the case of loans originated after 29 April 2022). The loan is interest-free for customers, unless they fail to meet the conditions of the loan, which makes the transaction interest-bearing retroactively, with an interest premium of 5 per cent (or 4 per cent in the case of loans originated after 29 April 2022). If the number of children undertaken is fulfilled, the interest is paid in full by the state instead of the customer. The loan has only been available to households, since the second half of 2019. These are general-purpose loans, with the collateral provided by a state guarantee, the cost of which is borne by the customer.
- *HPS⁷* – the interest rate is the five-year government bond rate multiplied by a factor of 1.3 plus 3 percentage points. Customers pay a 3-per cent interest rate, while the rest is covered by the state. The loan has been available to households since 2016. It is not to be confused with the non-refundable HPS. The collateral is the mortgage of the property for which the loan is taken out.
- *Home renovation loan* – the interest rate is the five-year government bond rate multiplied by a factor of 1.3 plus 3 percentage points. Customers pay a 3-per cent interest rate, while the rest is covered by the state. The loan has been available to households since 2021. The loan aims to complement the own contribution of the non-refundable home renovation subsidy and create a cover for it. The collateral is the mortgage of the property.

⁶ Unless otherwise indicated, the findings here pertain to the situation prior to the publication of Government Decree No. 150/2022 modifying the reimbursement of certain affected products and the interest premium of the prenatal baby support loans, published in the Hungarian Gazette on 14 April 2022. (150/2022. (IV.14) Korm. Rendelet az állam által fizetett költségtérítéssel kapcsolatban egyes kormányrendeletek módosításáról (Government Decree No. 150/2022 (IV.14.) on amending certain government decrees related to the reimbursement paid by the state): <https://njt.hu/jogszabaly/2022-150-20-22.>) Downloaded: 14 April 2022.

⁷ Home Purchase Subsidy

One common feature of the loans under review is that their interest rate is set by multiplying the reference rate by 1.3, and that some or all of the cash flow to be paid back is covered by the state instead of the customer.

In connection with the accounting treatment of the state-subsidised loans provided to households, the question is how to classify such loans (those with a multiplication factor of 1.3) under IFRS. This is key because different classifications yield different measurements, which can materially influence the profit or loss of credit institutions.

2.2. IFRS 9 requirements

Pursuant to IFRS 9, the measurement principle of financial instruments is determined by two factors, the business model and the SPPI⁸ test. With respect to the latter, it must be established whether the contractual cash flows of the given transaction are solely payments of the principal and the interest on the principal amount outstanding, and do not contain “contractual terms that introduce exposure to risks or volatility in the contractual cash flows that is unrelated to a basic lending arrangement, such as exposure to changes in equity prices or commodity prices”.⁹

If the financial instrument does not have contractual cash flows (e.g. equity instruments), the given asset is automatically measured at FVTPL, although the standard also allows for measurement at FVTOCI, subject to an irrevocable election. However, the loans under review here are debt instruments, where the assessment of the SPPI test is essential, because if the contractual cash flows include factors other than the principal and the interest, it is no longer necessary to examine the business model (Gulyás 2019).

Under IFRS 9, interest is solely the time value of money, coverage for credit risk, the related direct costs and the profit (Háda 2018). The content of the loan contracts under review requires debtors, or the state, to pay only the principal and the interest, although the percentage and amount of the interest is determined in an unusual manner. The interest on such loans is 1.3 times “the arithmetic mean of the yields of the government bonds with a nominal maturity of 5 years, as published monthly by the Hungarian Government Debt Management Agency based on the auctions in the three months preceding the publication date, weighted by the amounts accepted at the given auctions”,¹⁰ plus an interest rate of 1, 2 or 3 per cent, depending on the type of loan. The state takes over the variable portion of the interest for all loans, and in the case of the prenatal baby support loans it takes

⁸ SPPI = Solely Payment of Principal and Interest

⁹ IFRS 9 B4.1.7A

¹⁰ 44/2019. (III.12) Kormányrendelet a babaváró támogatásról, 10.§ (4). [Government Decree No 44/2019. (III. 12.) on Prenatal Baby Support, Section 10(4)]. <https://net.jogtar.hu/jogszabaly?docid=a1900044.kor>. Downloaded: 14 April 2022.

over the entire interest. In the case of a business model to collect cash flows,¹¹ if these loans did not include a multiplication factor of 1.3, they would have to be measured at AC under IFRS 9.¹²

When this measurement principle is used, changes in the fair value of the loan portfolio do not affect banks' profit or loss, because that only contains the loans' interest income calculated with the effective interest rate and impairment costs. If the loans are measured at fair value (FVTPL) due to the multiplication, the change in their value is reflected in the profit or loss, which can thus become more volatile, modifying the understandability and usefulness of the financial statements.

In connection with the interest, the IFRS 9 classification test (hereinafter: SPPI test) requires the interest rate not to contain leverage. Therefore, in the case of the loans under review, the most important question is the classification of the 1.3 multiplication factor, because according to the standard, the interest rate can only contain consideration for the time value of money, credit and liquidity risk, lending costs and the profit margin of the lender. Regarding the 1.3 multiplication factor, it is often argued that if it is considered leverage, then all loans that contain a multiplication factor immediately fail the SPPI test, and this means that these instruments should not be measured at amortised cost, but rather at fair value (FVTPL), irrespective of the business model.

Contractual cash flow characteristics were also addressed by the IASB¹³ after IFRS 9 entered into force, finding that revisions may be needed to ensure a straightforward application of IFRS 9 classification rules. The product types under review here were examined with respect to the problems in the regulation of classification and state-defined interest rates (*IASB¹⁴ 2022*). The IASB can bring the matter before the IFRS Interpretations Committee (IFRIC) to see whether an interpretation should be published on the issue. But this would only happen if it affected a considerable volume of loans globally, and this is currently not the case.

2.3. International studies on the SPPI test

Although the above instruments containing a multiplication factor are only characteristic of a few countries, implementation of the SPPI test and the assessment of its usefulness has also been discussed in other jurisdictions.

¹¹ *IFRS 9, B4.1.1-6*

¹² *IFRS 9, B4.1.7-14, B4.1.18*

¹³ IASB (2014): *Project summary – IFRS 9 Financial Instruments*. International Accounting Standards Board. <https://www.ifrs.org/-/media/project/fi-impairment/ifrs-standard/published-documents/project-summary-july-2014.pdf>. Downloaded: 7 April 2022.

¹⁴ IASB (2022): *AP3A: Contractual cash flow characteristics, Chapter D* (<https://www.ifrs.org/content/dam/ifrs/meetings/2022/april/iasb/ap3a-ccfc.pdf>). Downloaded: 15 December 2022.

PwC (2017) also looked at the issue, although it failed to mention the Hungarian problem in particular in the part on state regulation, but analysed a loan with a multiplication factor of 2.4 on the reference rate, and also referenced certain Brazilian and Chinese loans. The authors find that such loans would probably fail the SPPI test, but it is also possible that the factors do not produce cash flows that have different characteristics than the interest rate, if the cash flows do not lose their interest-type nature on account of an appropriately low multiplication factor. The authors also mention the exception rule pertaining to leveraged interest rates set by the state and declare that an appropriately low leverage may result in passing the SPPI test. However, “appropriately low” is yet another qualitative assessment criterion.

Gope (2018) and Filipova-Slancheva (2017) both establish that financial instruments measured at AC usually contain loan receivables with basic features, although neither of them go into detail about what they mean by basic features. Both of them expected that a change in classification conditions would have a major impact on the banking sector. Filipova-Slancheva (2017) maintains that one of the main features of the instruments measured at AC is the flexible repayment schedule, containing more than one option, noting that passing the SPPI test can be proven through further analysis. She argues that failing the SPPI test can result from the option to change the currency during the tenor, non-interest-bearing and non-repayable features, as well as features that allow/require a change in interest linked to factors other than credit risk, although these are not specified in detail, and some of her views, for example that interest-free loans necessarily fail the SPPI test and that the conversion of unpaid interest into principal breaches the SPPI, are not shared by this paper’s authors. Some of the central features of prenatal baby support loans, such as the option for multiple outcomes and the flexibly modifiable repayment schedule, are considered by her to be features of instruments that typically pass the SPPI test. Filipova-Slancheva does not argue for or against the conditions entailing extra volatility.

Ercegovac (2018) examined whether a EUR 10 million loan with an interest rate linked to the 6-month EURIBOR and monthly repricing and repayment passes the SPPI test. Based on both the actual historical interest rates and the forward theoretical benchmark rates, Ercegovac concluded that the loan under review passes the test, because the difference is no more than 5 per cent of the total nominal value of the loan, and so classification and measurement can occur at AC. Ercegovac also points out the effect of the change in classification that goes beyond accounting, namely that in the case of banks using transfer pricing, origination of loans measured at FVTPL may decline due to the structural cost of equity, and the portfolio may be realigned.

Popescu and Ionescu (2019) performed a similar analysis of a scenario where the time value of money is not perfectly reflected in the interest rate of a given financial instrument because that could make the cash flows of the instrument fail the SPPI. The instrument analysed by them was a loan disbursed in 2005, with an explicit tenor of 12 years and an interest rate of the 3-month EURIBOR+2.5 per cent, with a monthly repricing, variable interest rate. If the repricing period and the period of the benchmark rate are not identical, entities need to assess qualitative and quantitative factors to test whether the modified cash flows are significantly different from the original ones. The authors underline that the examination should yield the same results for the individual reporting periods and the entire tenor, and the significance level must be determined for each and every instrument. The authors found that the difference between the modified cash flows of the instrument under review and the original cash flows was within 4 per cent, but they did not express an opinion on classification and measurement.

Lejard (2016) also considers the introduction of the SPPI test a key element of the implementation of IFRS 9, and he expected an increase in the share of FVTPL instruments and in the volatility of profit or loss, which he believed would have run counter to the objectives of IFRS 9. However, his results contradicted the rise in the share of such assets, because he found that in the case of the banks under review, the share of the FVTPL portfolio, whether measured in this manner by requirement or choice, diminished, while the proportion of investments measured at AC rose. His study does not concern the implementation and content of the SPPI test, but it shows that FVTPL debt instruments do not account for a significant share in bank portfolios. This tallies with the finding of *Ercegovac (2018)*, who estimates that the share of hybrid instruments, in whose case IAS 39 stipulated that embedded derivatives should be separated and IFRS 9 would yield a failed SPPI test, is 0.1 per cent based on data from the European Banking Authority.

According to *Ha (2017)*, interest caps and floors suggest hybrid instruments that yield a pass on the SPPI test and thus measurement at AC. In Ha's view, securities protected against inflation do not fail the SPPI under IFRS 9, since inflation is not leveraged and the principal is protected. By contrast, certain government securities, such as American FRNs¹⁵ and Japanese government bonds that are reset every six months to the 10-year rate, may not pass the SPPI test, because the time value of money is not perfectly reflected in them. Of course, the main issue here is still the significance level of the benchmark test results (see also *Ercegovac 2018; Popescu – Ionescu 2019*), in other words materiality.

¹⁵ Floating-rate notes: two-year bonds reset every week to the quarterly rate.

One common finding of all of these studies is that one cannot automatically formulate an opinion on passing the SPPI test based on the presence or absence of certain contract characteristics; further analysis is necessary, which will be performed in *Section 4* of the present paper. To avoid repetition, some studies and rules are discussed in *Section 4*, along with the arguments related to them.

3. Analysis methodology

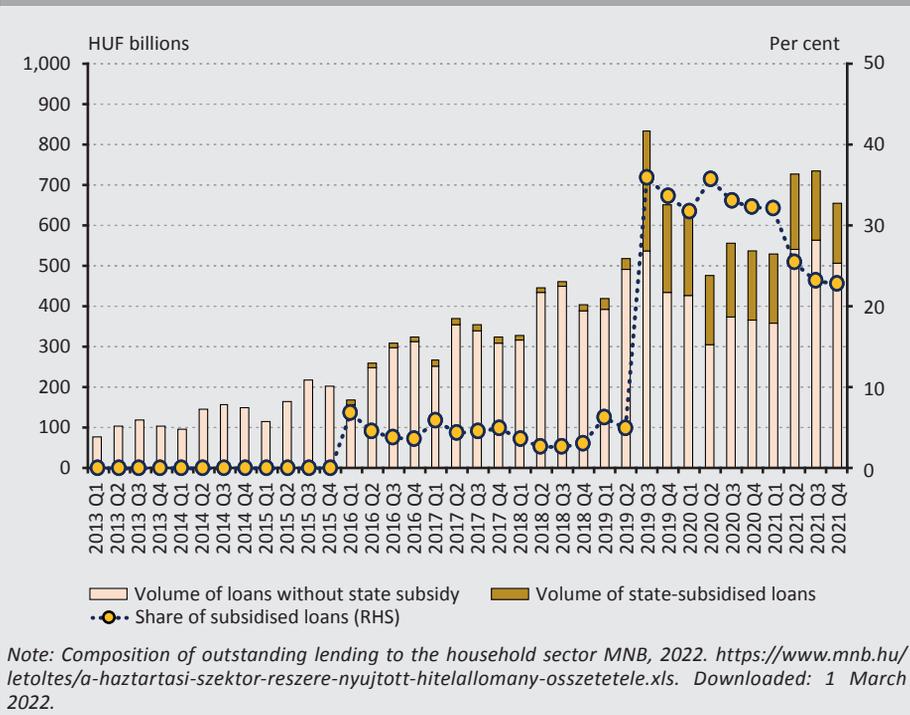
The analysis uses both qualitative and quantitative methodologies. The IFRS 9 classification requirements are compared to the relevant literature and the justifications in the financial statements under review. The legal provisions pertaining to the instruments as well as their economic content is also taken into account here. The interpretation of IFRS 9 requirements is examined from various aspects and viewpoints, before drawing the conclusions. On the other hand, the analysis also focuses on the structure of the financial statements under review, along with the amounts published in them and the relative share of assets. This method is used to present the differences arising from the varying interpretation of the SPPI test, and to point out the need for a uniform measurement. The appropriateness of the classification decision is assessed by looking at whether the loans under review truly have leverage or some other exposure unrelated to lending. The true economic content of the multiplication factor is then examined, along with how the transactions would be classified under the IFRS framework and what exception rules are available for modifying earlier analysis results. The various angles of the analysis allow the authors to state their opinion at the end.

4. Analysis and results

4.1. The significance and types of the loans concerned

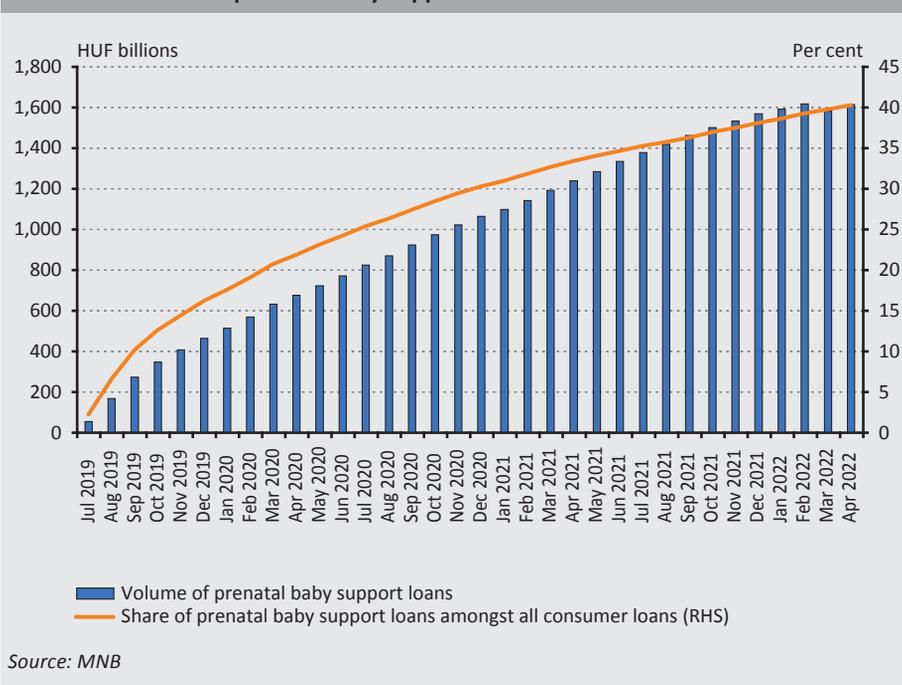
Within the new retail customer loans originated by the banking sector, state-subsidised loans had a share of 3–34 per cent in the years when the subsidies were granted (2016–2022) (*Figure 1*). Out of the subsidised retail loans of around HUF 2,100 billion disbursed in the six years between 2016 and 2021, the volume of prenatal baby support loans was HUF 1,600 billion, while HPS loans amounted to roughly HUF 500 billion.

Figure 1
Retail loans originated in the Hungarian banking sector, by quarter



It can be seen that among subsidised loans, the prenatal baby support loan is especially popular and accounts for a growing share within total outstanding debt. The stock of these loans had reached HUF 1,569 billion by the end of 2021, representing 16.6 per cent of households' total outstanding borrowing, and within consumer credit these loans account for as much as 40 per cent of the total (Figure 2).

Figure 2
Volume and share of prenatal baby support loans at the end of each month



4.2. Representation of loans with a multiplication factor in financial statements

The topicality of the issue comes from the fact that in its 2020 financial statements, *OTP Bank*, the Hungarian bank with the largest holdings of prenatal baby support loans and HPS loans, reclassified such loans from AC measurement to FVTPL measurement.¹⁶ This reclassification may have been triggered by the compulsory auditor rotation at the bank, because in 2021 its audits were taken over from Deloitte by Ernst & Young, and while the former allowed the loans with a multiplication factor to be measured at AC, the latter does not. In 2021, *MKB*,¹⁷ which had previously measured these loans at AC, also reclassified them, as well as *Takarékbank*¹⁸ and *UniCredit*,¹⁹ with a similar justification and also prior to the change of auditor.

The nine largest market participants in the Hungarian banking sector (as at end-2021) account for more than 95 per cent of the Hungarian banking sector’s total assets. The financial statements mentioned here (*Table 1*) show that the banks

¹⁶ 2020 standalone financial statements. OTP Bank, 2021

¹⁷ 2021 standalone financial statements. MKB Nyrt., 2022

¹⁸ Decisions of the general meeting of *Takarékbank Zrt.* on 26 April 2022. *Takarékbank*, 2022. <https://kozvetetelek.mnb.hu/downloadkozvetetel?id=687917&did=K177261/2022>. Downloaded: 27 April 2022.

¹⁹ 2021 standalone financial statements. UniCredit Bank, 2022

audited by Deloitte were the ones that did not have a major FVTPL loan portfolio (MKB, OTP, Takarékbank, UniCredit). During the auditor rotation, loans with a multiplication factor in the financial statements audited by the former auditor were restated and reclassified from AC to FVTPL. Additionally, *Budapest Bank* started recording the interest of FVTPL loans within interest income in 2021, just like the other banks.²⁰

Based on the justification of financial statements, the affected loans were often classified in the fair value category because they failed the SPPI test due to the 1.3 multiplication factor. The data also show that the change in the fair value of the loans with a multiplication factor can significantly influence profit or loss. Despite the shift in measurement principles, the profit after tax and total assets typically did not change in the year of restatement, which suggests that the fair value of the affected loans was probably the same as the AC version.

Year	OTP				K&H			UniCredit			
	2021	2020	2019 (restatement)	2019	2021	2020	2019	2021	2020 (restatement)	2020	2019
Auditor	EY	Deloitte*	Deloitte	Deloitte	PwC	PwC	PwC	Deloitte*	Deloitte	Deloitte	Deloitte
Total assets (HUF millions)	13,710,471	11,154,394	10,138,884	10,138,884	N/A	4,416,727	3,554,179	4,580,538	4,083,938	4,084,042	3,416,391
AC loans / total assets (%)	29.4	30.6	30.3	32.4	N/A	64.8	64.7	36	40	42.3	44.2
FVTPL loans / total assets (%)	4.8	4.3	2.4	0.3	N/A	3.2	1.9	1	1	0.1	0.2
Customer loans presented together?	yes	yes	yes	N/A	N/A	yes	yes	yes	yes	N/A	N/A
Profit after tax (HUF millions)	125,339	92,474	193,354	193,354	N/A	32,453	50,414	42,655	32,600	31,953	49,060
Change in FV of FVTPL loans / Profit after tax (%)	10.1	-2.3	N/A	1.0	N/A	16.2	3.0	0	-3	N/A	N/A
Interest of FVTPL loans within interest income?	yes	yes	yes	N/A	N/A	yes	yes	yes	yes	N/A	N/A

²⁰ The regulation does not specify any requirement in this respect, so the presentation method is up to the entity. 2020 standalone financial statements. Budapest Bank Zrt. Downloaded: 7 February 2023. 2021 standalone financial statements. Budapest Bank Zrt. Downloaded: 7 February 2023.

Year	Erste				Raiffeisen			Takarékbank			
	2021	2020	2019 (restatement)	2019	2021	2020	2019	2021	2020 (restatement)	2020	2019
Auditor	PwC	PwC	PwC	PwC	KPMG*	KPMG	KPMG	Deloitte*	Deloitte	Deloitte	Deloitte
Total assets (HUF millions)	N/A	3,620,880	N/A	2,862,137	N/A	3,202,846	2,598,544	3,233,914	2,804,940	2,804,940	2,167,752
AC loans / total assets (%)	N/A	41.0	N/A	49.1	N/A	44.3	47.3	49	52	42,3	65,3
FVTPL loans / total assets (%)	N/A	5.8	N/A	3.9	N/A	2.1	1.3	7	6	0.1	0.1
Customer loans presented together?	N/A	no	N/A	no	N/A	yes	yes	yes	yes	N/A	N/A
Profit after tax (HUF millions)	N/A	18,906	N/A	55,537	N/A	12,939	20,831	-1,252	-10,780	-10,780	-9,849
Change in FV of FVTPL loans / Profit after tax (%)	N/A	-11.6	N/A	-0.7	N/A	7.0	3.1	13	9	N/A	N/A
Interest of FVTPL loans within interest income?	N/A	yes	N/A	yes	N/A	yes	yes	yes	yes	N/A	N/A

Year	MKB				CIB			Budapest Bank			
	2021	2020 (restatement)	2020	2019	2021	2020	2019	2021	2020 (reclassified)	2020	2019
Auditor	Deloitte*	Deloitte	Deloitte	Deloitte	EY	KPMG*	KPMG	KPMG*	KPMG	KPMG	KPMG
Total assets (HUF millions)	3,320,182	2,792,636	2,792,636	1,772,456	2,793,321	2,415,669	2,009,416	2,490,210	2,169,407	2,169,407	1,515,148
AC loans / total assets (%)	34.6	38.2	39.6	52.1	41.4	46.7	50.4	44.4	45.0	45.0	59.0
FVTPL loans / total assets (%)	1.6	1.5	0.0	0.1	2.9	2.4	1.3	2.3	1.9	1.9	1.6
Customer loans presented together?	yes	yes	N/A	N/A	no	no	no	yes	yes	yes	yes
Profit after tax (HUF millions)	55,916	6,232	6,232	42,012	14,171	11,519	13,981	9,639	4,346	4,346	15,998
Change in FV of FVTPL loans / Profit after tax (%)	-3.2	-5.8	N/A	N/A	-33.4	8.2	-0.3	-22.8	-4.9	-4.9	-4.9
Interest of FVTPL loans within interest income?	yes, but together	yes, but together	N/A	N/A	yes	yes	yes	yes	yes	no	no

Reclassification
FVTPL measurement
FVTPL loans recognised separately from AC
Change in FV of FVTPL loans influenced profit or loss by more than 5%.

Note: Ranking of banks based on their 2020 total assets, *change of auditor in the next year. N/A: no data were available at the time of the analysis. OTP: 2019, 2020 and 2021 standalone financial statements; CIB, MKB and Takarékbank: 2020 and 2021 standalone financial statements; UniCredit, Raiffeisen, K&H and Erste: 2020 standalone financial statements.

The audit firms operating in the Hungarian market held three differing views on the subject.²¹ Some claimed that leverage immediately entails FVTPL measurement and there is no reason for further inspection. Other auditors took into account the rule on the interest rate set by the state (*IFRS 9 B4.1.9E*), but considered that there was a substitute product, on a market basis, that served as an alternative to the loans with a multiplication factor, so there was no state-determined interest rate, and hence the loans fail the SPPI test due to the leverage and thus need to be measured at FVTPL. A third group of firms (based on the financial statements analysed, the only such Big Four company was probably Deloitte) had previously accepted the exception rule on interest rate set by the state and thus allowed measurement at AC.

The table shows that the banks that were previously audited by Deloitte started applying FVTPL measurement for the loans, which suggests that the opinion of the affected banks and their former auditors changed in the matter, and from 2022 all large banks in Hungary recorded these loans under the FVTPL category in their financial statements, which improved the comparability of these documents.

4.3. The IFRS 9 measurement principle and its implications

If the accounting treatment of these loans does not occur uniformly at amortised cost in the banking sector, then:

- the parallel use of amortised cost and fair value measurement in the sector reduces the comparability of banks;
- estimating fair value requires the prediction future cash flows and an appropriate discount rate. In the case of prenatal baby support loans, estimating future cash flows involves huge uncertainty due to the demographic variables, and the determined fair value may not be fully reliable;
- using a measurement model built on market input is difficult because there are no market transactions, or even an active market, with these loans, they are not traded, and some cash flows come from the state (*Grósz et al. 2020*);
- although IFRS 9 generally considers the fair value through profit or loss measurement as the standard approach for financial instruments, when using FVTPL measurement, any change in the fair value actually modifies banks' profit or loss for the given period, unlike with measurement at amortised cost. While the impact of instruments measured at AC on profit or loss can be forecast well, the change in fair value is a much more complex phenomenon involving more variables, making it more difficult to estimate for an outside observer. In the case of such a huge stock of loans, this can considerably influence the annual profit or

²¹ IASB Request for Information – Post-implementation Review of IFRS 9 Financial Instruments – Classification and Measurement. https://ifrs-springapps-comment-letter-api-1.azuremicroservices.io/v2/download-file?path=598_29512_GborSchnerHungarianBankingAssociation_0_IFRS9Postimplementationreview_2022_01_27_HBA_signed.pdf. Downloaded: 20 March 2022.

loss of the credit institutions concerned, and forecasting based on the financial statements and explaining past events becomes more complicated for internal and external stakeholders alike;

- it becomes questionable whether the financial statements provide a faithful representation of the facts, as the different measurement principles are solely based on the divergent interpretations of IFRS 9 rules;
- in the case of long-term loans, banks would typically like to generate cash flows and profits from the interest on loans rather than from the change in fair value. If the change in fair value is incorporated into profit or loss, the picture shown about the bank will hardly reflect the entity's intentions and business model;
- the balance sheet and income statement items pertaining to the same type of instruments can be recognised on different lines of the balance sheet and the income statement, which dramatically lowers the usefulness and interpretability of the financial statements.

4.4. Leverage

If the 1.3 multiplication factor is actually not leverage, this issue is resolved, and the instruments need to be measured at amortised cost. The IFRS 9 standard does not provide a first-hand definition of leverage, it simply describes certain features and characteristics associated with it.²² The entire accounting hierarchy of norms fails to provide a definition of leverage, so the best practices in interpretation should be followed.

Based on the accounting principle stipulating faithful representation (*Lakatos et al. 2018*), whether these loans include leverage is not a straightforward question. If the 1.3 multiplication factor is compared to the characteristics of the instruments mentioned in the standard that are known to include leverage (stand-alone options, forward and swap contracts, interest-bearing instruments indexed to an equity index), it can be seen that the creators of the standard did not use leverage in the meaning that is associated with the 1.3 multiplication factor in economics. The average leverage of such instruments is usually not 1.3 but many times 10, as "credit institutions usually offer instruments with a leverage of 10, 20 or 25 times the contract amount".²³

The best approximation of the leverage phenomenon is the ratio of external liabilities/own capital, where own capital represents the amount risked by the owners, while external liabilities are typically a bank's stock of deposits. It is easy to see that in an economic sense the use of the 1.3 multiplication factor is not an increase in the external liabilities/own capital ratio, because own capital does not decrease and the stock of deposits remains unchanged. The higher interest income received due to the multiplication factor raises own capital through the profit after tax, so if the multiplication factor is incorporated into the interest rate, leverage is actually reduced.

²² IFRS 9 B4.1.9.; B4.1.13.

²³ *Tájékoztató a magas tőkeáttételes ügyletekről (Information on high-leverage transactions)*. MNB, 2011. <https://www.mnb.hu/felugyelet/felugyeleti-keretrendszer/felugyeleti-hirek/archiv-hirek/tajekoztato-a-magas-tokeatteteles-ugyletekrrol>. Downloaded: 1 March 2022.

If the 1.3 multiplication factor is not defined as leverage but as an exposure to risks or volatility unrelated to the basic lending arrangement, the (non-exhaustive) list of examples mentioned by the creators of the standard should be taken as indicative: exposure to changes in equity prices or commodity prices. Due to its characteristics, the multiplication factor in the interest rate bears no similarity to these examples.

4.5. Economic content

The 1.3 multiplication factor can also be interpreted as a pricing parameter, reimbursing the creditor for some cost, risk or profit in the interest rate.

Instruments whose cash flows are solely the payment of the principal and the interest pass the SPPI test. Pursuant to IFRS 9, interest may consist of the consideration for the time value of money, for credit risks and for other risks inherently tied to lending (liquidity, operational, administrative expenses) as well as the usual profit margin on the market. The interest rate can be broken down into the time value of money, the cost of credit risk and other costs associated with lending. If interest beyond the above is collected, it should be examined whether the interest rate of the loans includes other, undue exposure not related to lending. This can be simply refuted if the argument is accepted that the 1.3 multiplication factor is not leverage but something that helps in appropriately pricing loans.

The *MNB*²⁴ claims that it is wrong to assume that using any multiplication factor higher than 1 to modify a reference rate implies leverage and thus also that the interest rate loses its interest-type nature. According to the justification, the best market reference rate for state-subsidised loans would be the average yield of mortgage bonds. Since “no such index existed until December 2017, the regulatory authority determined it synthetically, based on the Government Debt Management Agency’s yield multiplied by a multiplication factor established on the basis of statistical data, because using the Government Debt Management Agency’s average yield without a multiplication factor would have resulted in distorted prices”.²⁵ Accordingly, the 1.3 multiplication factor is actually not leverage but the synthetic generator of an appropriate interest rate. Therefore these loans do not contain leverage, risks unrelated to basic lending practices or exposure to volatility. The 1.3 multiplication factor simply compensates the creditor for direct costs and risk-taking.

According to the Hungarian Banking Association,²⁶ the best reference rate for pricing mortgage loans is not the government securities yield but a yield on mortgage-

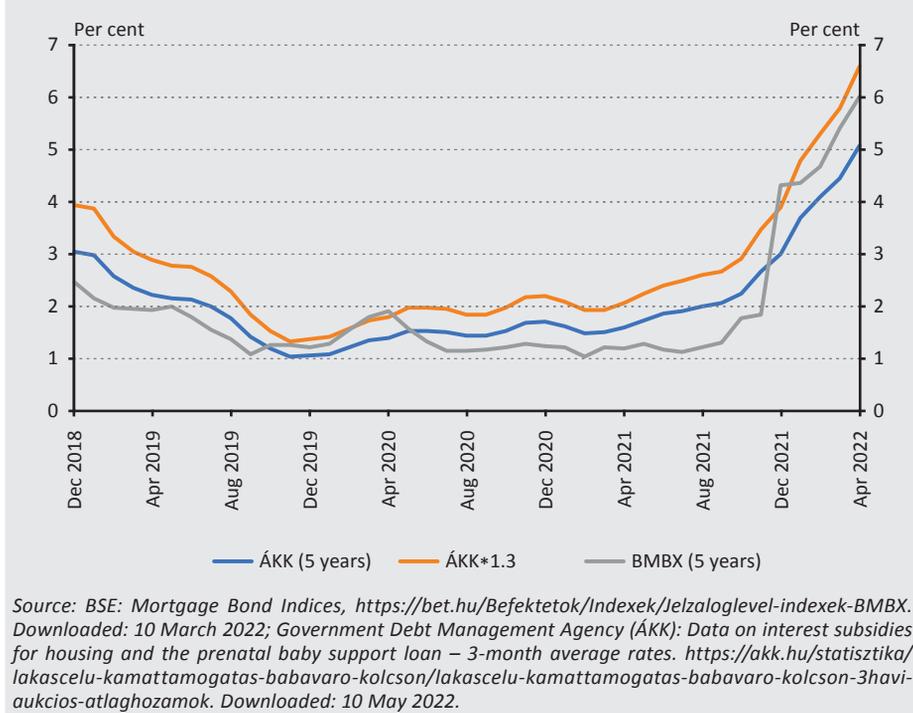
²⁴ Az állami kamattámogatással, illetve a fair bankszabályozással érintett hiteleket az IFRS 9 standard alatt amortizált bekerülési értéken vagy (a kamat meghatározásában szereplő szorzó miatt) valós értéken kell kimutatni? (Under IFRS 9, should the loans with a state subsidy or subject to fair banking regulation be recognised at amortised cost or at fair value (due to the multiplication factor in the interest rate)?). MNB, 2018. <https://www.mnb.hu/letoltes/csok.pdf>. Downloaded: 15 March 2022.

²⁵ Ibid.

²⁶ IASB Request for Information – Post-implementation Review of IFRS 9 Financial Instruments – Classification and Measurement. https://ifrs-springapps-comment-letter-api-1.azuremicroservices.io/v2/download-file?path=598_29512_GborSchnerHungarianBankingAssociation_0_IFRS9Postimplementationreview_2022_01_27_HBA_signed.pdf. Downloaded: 20 March 2022.

backed bonds, which has historically had a premium of 30 per cent over the government securities with identical parameters. The government securities yield is considered the cost of funds, or the time value of money, while the additional amount, 0.3 times the government securities yield, is seen as a profit margin, and the rest, a fixed proportion, is stated as the compensation for all other costs in pricing.

Figure 3
Monthly averages of the five-year government securities pricing parameter published by the Government Debt Management Agency and the five-year mortgage-backed bond yield index (BMBX) published by the BSE



Although historically mortgage-backed bond yields did not offer a 30 per cent premium over government securities yields (see *Figure 3*), this is probably not because there is no economically logical premium, which would mean that Hungarian mortgage banks are better debtors than the Hungarian state, but because of certain other factors, such as the illiquidity of the mortgage-backed bond market.

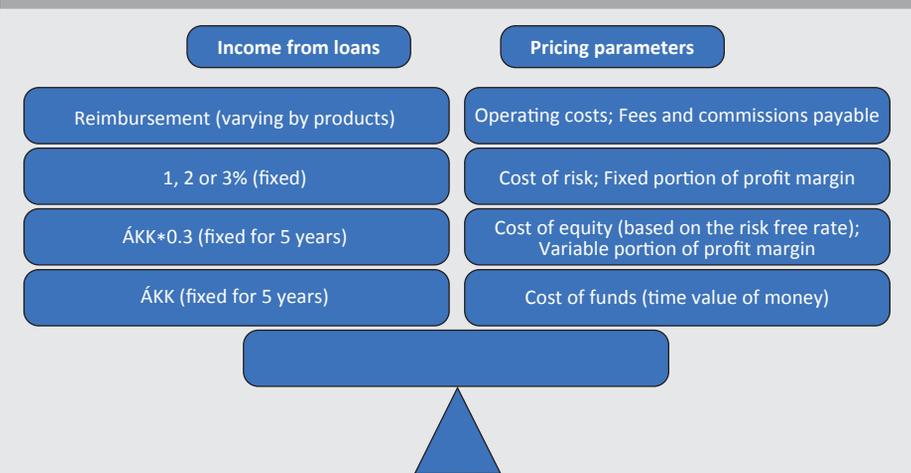
4.6. Pricing parameter

Deciding which element of income compensates the bank for which cost or risk is subjective. Supplementing the justification of the MNB and the Hungarian Banking Association, in which the profit margin and the reference rate are specified as the cost/risk to be compensated for, another pricing parameter may also be

possible, which would somehow reflect the dependence on the Government Debt Management Agency.

In the case of the loans with a multiplication factor, banks receive the interest rate ($\text{ÁKK} \times 1.3 + 1$,²⁷ 2 or 3 per cent) and the reimbursement by the state. In exchange, they assume the following costs and risks: cost of funds, cost of equity, cost of risks, operational costs, fees and the commissions payable (e.g. agency fees). The pricing also includes the profit margin. Pairing these up is arbitrary, but nevertheless necessary for illustrating whether the compensation is consistent with the assumed risks, costs and profits overall. One option for pairing the above items is shown in Figure 4, where the items on the same line compensate for each other.

Figure 4
Presenting the income realised on loans with a multiplication factor and the factors used as pricing parameters



Note: Based on banks' product profitability calculation methods: This approach is similar to an income statement template, supplemented with the cost of equity, which is not reflected in profit or loss but is taken into account during pricing:

$$\text{interest} + \text{fees} - \text{operating costs} - \text{cost of risk} - (\text{actual}) \text{ cost of funds} - \text{cost of equity} = \text{profit margin.}$$

While calculating the profitability of a product, banks take the net profit on the interest income and other income (deducting the fees and commissions), then deduct the margin on operating costs, the risk margin, the cost of funds on the loans (which is simply the time value of money) as well as the cost of equity payable due to capital requirements to arrive at the profit margin. The cost of required capital needs to be taken into account along with the items on the income statement because this is the opportunity cost paid by shareholders investing in the bank due to the capital being tied down on account of the loan. Factoring in the cost of equity (beyond the profit margin) is necessary to ensure that the entity produces economic value added (EVA).

²⁷ The fixed portion of the interest rate on the prenatal baby support loans originated after 29 April 2022 is 1 per cent instead of the previous 2 per cent.

The multiplication factor of 1 (ÁKK) is sufficient compensation for the loan's *cost of funds*, as it compensates for the time value of money. The remaining 0.3 of the ÁKK may compensate for risks such as the cost of capital to be held due to the loan (see the minimum capital requirements, Basel regulation²⁸), which is another pricing parameter for market products, or for the variable portion of the expected profit margin dependent on the yield environment. The fixed, 1- 2- or 3-per cent part (depending on the product) of the interest rate can be viewed as the cost of risk and a fixed profit margin.

The reimbursement from the state, varying by product, can be seen as income compensating for operating costs and other fees and commissions (e.g. agency fees). Although the *reimbursement* is not part of the nominal interest rate, in an economic sense it is very much so, because the bank would not be entitled to receive it without disbursing the loan, and the amount of the reimbursement is tied to the disbursed amount and the outstanding balances.

The *cost of equity* is typically estimated, usually on the basis of a risk-free rate. The CAPM, often used for estimating the cost of equity, employs the following formula: risk-free rate + beta · market risk premium (*Damodaran 2016*). This shows that it is particularly favourable that the portion of the interest rate received as compensation for the cost of equity depends on the risk-free rate. The cost of equity is included in banks' pricing for the loans for which Basel capital rules require capital to be held, proportionate to that amount. This requires the risk weight (RW) of the given product type to be determined, because if it is 0 per cent, no capital has to be held for the product, so incorporating the cost of equity into pricing leads to false results. The HPS loans are secured by a mortgage, resulting in a risk weight of 35 per cent for retail products, and therefore incorporating the cost of equity into pricing is relevant for such products. By contrast, the prenatal baby support loans have a risk weight of 0 per cent due to the state guarantee, so the cost of equity should not be incorporated into pricing in their case.

The estimated value of the *cost of risk* should typically not be a fixed percentage according to the logic of economics, as a higher yield environment entails a higher probability of default. Nevertheless, using a fixed percentage for the cost of risk in the case of the subsidised loans makes sense because the heightened risk driven by the rising yield environment is realised on the part of the interest rate assumed by the state rather than at the customer, so, *ceteris paribus*, no higher default rate should be assumed when yields are rising.

²⁸ The percentage cost of required capital (or margin) can be calculated with the following formula: risk weight of the loan (RW) * minimum capital requirement of the bank (min. CAR – capital adequacy ratio) * cost of equity (r_E , CoE, in percentage terms). Multiplying this value with the volume of loans gives the nominal cost of equity.

With respect to the profit margin, a fixed pricing parameter (in percentage terms) could only be realistic if it was assumed that the profit margin of alternative products was also fixed, regardless of the change in the yield environment. With perfect deposit-side monetary policy transmission (a rise in the central bank base rate is reflected in the deposit rate), this would be the case, because the profit margin of the alternative products would remain unchanged. However, the current rise in yields was not followed by an increase in deposit rates, which remained low, and this lifts the profit margin actually realised on alternative products. Therefore, it can be realistically assumed that the expected profit increases along with the interest margin. That is why it is worth dividing up the profit margin into two parts, a fixed and a variable portion, the latter of which follows the shifts in the yield environment. In this division, the 0.3 multiplication factor of the ÁKK compensates for this part in pricing (too). The comparison to alternative products is relevant because the source of loans with a multiplication factor is banks' own funds rather than a targeted refinancing operation, allowing banks to decide on how best to allocate their own funds to make the greatest profits.

The interpretation of the multiplication factor as a variable profit margin is also mentioned by PwC.²⁹ In connection with a multiplication factor of 1.15, the authors specifically state that it would not fail the SPPI test in a volatile yield environment. In the case of a loan with a multiplication factor originated in a less volatile environment, the significance of the benchmark test can prove SPPI conformity (*Table 2*). Other groupings of the pricing elements, not shown here, also lead one to conclude that in its economic content the 0.3 multiplication factor of the ÁKK is a pricing parameter compensating the creditor and not leverage.

4.7. Assessment under the Framework

Along with the justifications for rule-based classification, let us investigate what the creators of IFRS 9 wanted to achieve by introducing the new classification criteria.³⁰ The IASB distinguishes assets based on the characteristics of cash flows (SPPI test) and the function of the assets (business model). The 1.3 multiplication factor does not result in less predictable cash flows than if it was not there.

The interpretation is assisted by the Conceptual Framework for Financial Reporting, published by the IASB, the body that devised the rules. The Framework should be taken into account if the standards do not provide straightforward guidance in an

²⁹ *In Depth Retail banking: practical implications of IFRS 9 classification and measurement*, PwC, 2017, p. 27. <https://www.pwc.de/de/newsletter/kapitalmarkt/in-depth-retail-banking-ifs-9-c-m.pdf>. Downloaded: 15 December 2022.

³⁰ *IFRS Project Summary 2014*: <https://www.ifs.org/content/dam/ifs/project/fi-impairment/ifs-standard/published-documents/project-summary-july-2014.pdf>, Downloaded: 7 February 2023.

accounting treatment issue. The two types of measurement principles are compared below, on the basis of their compliance with the Framework.³¹

The *objective of general-purpose financial reporting* is to support the decision-making of various stakeholders (CFR,³² Chapter 1). The FVTPL measurement of the loans concerned may already fail to fully achieve this basic objective, as the change in fair value of these loans becomes part of the profit or loss, although it has nothing to do with how the company uses its resources and generates cash flows. This is confirmed by the fact that the performance of the divisions and workers charged with the loans is not assessed based on the change in fair value. Furthermore, allowing the change in fair value to be incorporated into profit or loss also makes it difficult for external stakeholders to assess the relevant performance of the entity.

Financial reports also seek to present how an entity used its resources in the past, while also enabling the estimation of future resource use. Under the FVTPL measurement, none of these aims are met, as banks want to generate income from the interest of the loans rather than the change in fair value,³³ and an element in profit or loss that is difficult to estimate reduces the predictability of future performance.

Financial information is considered useful if it meets, as much as possible, certain fundamental requirements (relevance and faithful representation) and some that enhance its usefulness (comparability, verifiability, timeliness, understandability), and if it does not breach the cost constraint determined by its production (CFR, Chapter 2). Financial information is *relevant* if it has confirmatory value for the past and predictive value for the future. Confirmatory value means that the information offers feedback about previous evaluations, while predictive value is when the information can be used as input for estimating future outcomes. In the case examined here, the FVTPL measurement cannot fully meet these requirements. When it comes to *faithful* representation, substance trumps legal form. The previous section showed that although the multiplication factor in these loans looks like leverage, it is nothing like that in an economic sense.

If a phenomenon can be presented in a relevant and faithful manner from various angles, it has to meet some enhancing requirements as much as possible. *Comparability* is among the most undermined characteristics in the FVTPL measurement of the loans under review. In the case of such loans, fair value is usually determined using Level 3, estimated fair value inputs, allowing entities

³¹ The findings here should not be read as a general criticism of measurement principles, as they merely pertain to the loans under review.

³² *Conceptual Framework*: <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards/english/2021/issued/part-a/conceptual-framework-for-financial-reporting.pdf>. Downloaded: 7 February 2023.

³³ Of course, banks can, and do, manage the interest rate risk of their loans, irrespective of the measurement principle used.

to measure instruments differently, even when they have completely identical parameters, thereby greatly reducing comparability across entities. The mixed use of the measurement principles in the banking sector prior to 2021 (where certain banks recognised these loans at AC, while others did so at FVTPL) also ran counter to this characteristic. Within the financial statements, the change in fair value, the interest realised on FVTPL loans and the representation of the part of the change in fair value arising from the shift in credit risk are also inconsistent within the sector, but this is more of a general criticism of the problems with IFRS, attributable to the freedom allowed in preparing the reports. Moreover, using an FVTPL measurement reduces comparability not only across entities, but also the comparability of a given entity over time, as each year profit or loss includes an element that is difficult to predict and interpret.

Verifiability requires that the information be reproducible by knowledgeable and independent outside parties. Out of the two measurements, the AC version fares better in this regard too, as estimating the fair value of these instruments is difficult, requiring almost an expert actuary.

Understandability means that the classification, the characterisation and the presentation of the information occurs in a clear and concise manner. If banks use the FVTPL measurement for loans with a multiplication factor, the understandability of financial statements is greatly diminished because customer loans with more or less identical characteristics are presented in two measurement categories. As most customer loans are measured at AC, understandability within the meaning of the Framework would require that the loans under review here also be measured at AC.

When assessing the usefulness of information, *the cost constraints of producing the information* also need to be taken into account. Measuring at amortised cost is all the more favourable because an FVTPL measurement significantly increases the costs of producing accounting information, which can outweigh the benefits of having that information. Generating fair value also requires additional work from the auditor compared to an AC measurement, as the latter is calculated automatically, while auditing the fair value model is a more complex task involving more work by experts. Moreover, in the absence of an active market, determining fair value in the case of the loans concerned is particularly arduous. Loan portfolios are usually sold as part of a portfolio transfer or when selling non-performing loans, which are not transactions under normal market conditions, so the transaction price does not reflect a normal deal. While an accurately measurable and reliable value could be presented in the books with AC measurement, when FVTPL measurement is used the books contain a more uncertain value based on Level 3 fair value inputs and its change.

While measurement at AC reflect neither the prevailing market conditions at the time of the measurement nor the change in value, the amounts shown are updated as repayments and credit loss are recognised. An advantage of using fair value instead of AC is that the value always reflects the prevailing market information. The Framework (CFR 6) underlines the confirmatory value of the AC measurement, and the predictive and confirmatory value of fair value measurement. The latter may be better able to verify the accuracy of earlier expectations than the AC measurement. However, in the case of the loans with the multiplication factor this confirmation is not very important, as origination always occurs under the prevailing market conditions, as banks do not seek to lend at higher rates by delaying disbursement, but to acquire as much market share as possible in a given period.

Every entity must decide which measurement principle to use, taking into account how they want to realise profits and future cash flows from the different assets. In the case of loans with a multiplication factor, banks would like to realise profits from collecting the principal and the interest, where the latter complies with IFRS 9 requirements as shown in the previous sections. The relevance of the instrument's change in value also has to be considered. While the change in fair value is relevant for derivative instruments, the opposite is true for the loans under review here, as any change in value just muddies the picture. In the case of loans with a multiplication factor, the benefits and relevance of AC measurement far outweigh its drawbacks and the advantages of fair value measurement.

One may also decide to measure some assets using multiple methods. Banks are required to disclose, in the notes, the fair value of the loans measured at AC in the financial statements (IFRS 7),³⁴ thereby introducing the fair value into the financial statements, while the instruments are presented at AC on the balance sheet and the income statement, with all the benefits this entails.

4.8. Exception rules

If, despite the above, one decides to view the 1.3 multiplication factor as leverage or considers that it results in exposure to risks or volatility not related to the basic loan agreement, there are still three options that can lead to an AC measurement. The first is the exception rule pertaining to interest rates set by the state. The second is the so-called *de minimis* rule, which allows the characteristics that have a negligible effect to be disregarded, while the most general exception rule is the option for departure from IFRS as stipulated in IAS 1.³⁵

³⁴ IFRS 7 – *Financial instruments: disclosures*. <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02008R1126-20220101&from=EN>. Last downloaded: 5 August 2022.

³⁵ IAS 1 – *Presentation of Financial Statements*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32008R1274>. Last downloaded: 5 August 2022.

Paragraph B4.1.9E of IFRS 9, pertaining to *interest rates set by the state*, would also provide an exception to the general rule, where the rules do not make the product fail the SPPI test simply because of the size of the interest rate and the way it is produced. This could have helped in the case of loans with a 1.3 multiplication factor, where entities have no say in the pricing of the product. However, in the present analysis this rule cannot fulfil its intended objective, because it is highly subjective due to the use of the word “broadly”, and it requires compliance with something that it wishes to provide an exemption from: “[it] does not provide exposure to risks or volatility in the contractual cash flows that are inconsistent with a basic lending arrangement”. The regulation is therefore self-contradictory, which is a fundamental issue, because the exception rule and the general rule override each other in the case of loans with a multiplication factor. Moreover, some auditors view the interest rate set by the state as something that only occurs when there is no alternative, market-priced substitute product available on the market.³⁶ However, loans with a multiplication factor do have a market alternative, so in this interpretation the exception rule would not mean a genuine exception.

Based on the de minimis rule,³⁷ a contractual condition does not change classification if it only has a marginal impact. In order to prove that the 1.3 multiplication factor is a de minimis condition, it is necessary to establish that its impact is marginal for all years and over the entire maturity of the loan. Two alternative scenarios were compared during the calculation. In the first, the loans are priced without a multiplication factor, and in the second they are priced with one. Although the maximum loan amount depends on the type of loan with a multiplication factor, this does not impact the calculation. The real difference is caused by the ÁKK reference rate at the time when the ÁKK yield is fixed for the first five years of the loan. The calculations for the different yields are shown in *Table 2*. The largest volume of the loans with a multiplication factor was originated between the second half of 2019 and 2021, when ÁKK yields fluctuated in the 1–2 per cent range (*Figure 3*). The table with the calculations shows that with an ÁKK rate of 1–2 per cent upon origination, the cash flows differ by 2.7–5.1 per cent in all periods and in aggregate over the entire maturity period, depending on whether a multiplication factor is used. This is not only much lower than 30 per cent, but also minimal compared to the differences of 10, 20 or 40 times typical of leveraged derivatives. Accordingly, it is safe to say that the impact of leverage on the cash flows is marginal in the case of these loans. As a result of the rise in yields since late 2021, the difference may be as large as around 10 per cent for the currently disbursed loans, but this still falls

³⁶ IASB Request for Information – Post-implementation Review of IFRS 9 Financial Instruments – Classification and Measurement. https://ifrs-springapps-comment-letter-api-1.azuremicroservices.io/v2/download-file?path=598_29512_GborSchnerHungarianBankingAssociation_0_IFRS9Postimplementationreview_2022_01_27_HBA_signed.pdf. Downloaded: 20 March 2022.

³⁷ IFRS 9, B4.1.18

short of the 1,000; 2,000; 4,000 per cent levels, which are typical of real leverage in a financial sense.

Loan amount (HUF)	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
ÁKK (%)	0	1	2	3	4	5	6
a) ÁKK+2% (%)	2.0	3.0	4.0	5.0	6.0	7.0	8.0
b) ÁKK*1.3+2% (%)	2.0	3.3	4.6	5.9	7.2	8.5	9.8
Monthly interest a) (%)	0.2	0.2	0.3	0.4	0.5	0.6	0.6
Monthly interest b) (%)	0.2	0.3	0.4	0.5	0.6	0.7	0.8
Monthly instalment a) (HUF)	50,503	55,257	60,222	65,384	70,729	76,244	81,915
Monthly instalment b) (HUF)	50,503	56,725	63,296	70,187	77,367	84,804	92,467
Amount to be repaid a) (HUF)	12,120,635	13,261,765	14,453,250	15,692,075	16,975,010	18,298,674	19,659,605
Amount to be repaid b) (HUF)	12,120,635	13,614,056	15,191,067	16,844,827	18,567,991	20,352,956	22,192,081
Total interest a) (HUF)	2,120,635	3,261,765	4,453,250	5,692,075	6,975,010	8,298,674	9,659,605
Total interest b) (HUF)	2,120,635	3,614,056	5,191,067	6,844,827	8,567,991	10,352,956	12,192,081
Difference by instalment, annually and in aggregate (%)	0.0	2.7	5.1	7.3	9.4	11.2	12.9
Annual difference (HUF)	0	17,615	36,891	57,638	79,649	102,714	126,624
20-year difference (HUF)	0	352,290	737,817	1,152,751	1,592,981	2,054,282	2,532,475

Note: Since there is no reliable projection for the five-year forward government securities rates five, ten and fifteen years from now, a simplification was used, namely that these loans are not reset every five years, so the interest rate stays the same fixed amount not only in the first five years, but also for the entire maturity period (up to 10/20/25 years, depending on the type of product). This assumption is supported by the fact that in the context of a higher interest rate the regulatory authority could fix the interest rate of these loans with a procedure similar to the interest rate cap,¹ because higher government securities yields at the time of the reset would raise the government's budgetary spending, as the variable portion is paid by the state in all cases.

Even if every multiplication factor higher than 1 would be considered leverage, it is still important to consider whether this modifying factor has a truly significant impact. IFRS 9 states that the difference is significant if the embedded product causing the leverage would at least double the initial rate of return as compared

¹ 782/2021. (XII.24.) Kormányrendelet a fogyasztónak nyújtott hitelről szóló 2009. évi CLXII. törvény veszélyhelyzetben történő eltérő alkalmazásáról (Government Decree No. 782/2021. (XII.24.) on the Different Application in a State of Emergency of Act CLXII of 2009 on Credit Provided to the Consumer). <https://net.jogtar.hu/jogszabaly?docid=A2100782.KOR&dbnum=1>. Downloaded: 14 April 2022.

to the basic contract.² It is easy to see that the rate of return is not doubled at all when using the 1.3 multiplication factor. Another requirement for materiality in the standard is that the doubled rate of return be at least twice the market rate applicable to the contracts with identical conditions. This should not even be analysed, since the initial step, the doubling, does not occur.³

A last option for measurement at amortised cost could be provided by IAS 1, if every former examination pointed towards FVTPL measurement, and this enables *departure from applying the standards* under certain conditions. However, this is only possible if the application of the standard goes against the objective of the Framework, so this exception rule is hardly used at all in practice, because even if only one entity acts in accordance with the standard in a given industry, the assumption that the employment of the standard undermines the achievement of the objectives of the Framework is immediately refuted. Thus this rule cannot divert users from FVTPL measurement, unless the entire sector switches to measurement at AC.

5. Summary

Overall, if the Framework is analysed and all the known circumstances are taken into account, it must be *concluded* that banks' financial statements would provide more relevant and useful information to their users if loans with a multiplication factor were *measured at amortised cost*. According to the currently held view among auditors, the fair value measurement should be used, even if in principle measurement at AC was better, as they believe that in a strict reading of the regulation these loans fail the SPPI test due to the multiplication factor. This can only be expected to change if the IASB responds to the substance of the Hungarian Banking Association's proposal, or perhaps an IFRIC interpretation is published, or the state changes how the interest rate is set. The latter is unlikely because of the long-standing practices, and for the loans already disbursed it could only be done by retroactive legislation and contract amendments. Since the Hungarian State only adjusted the fixed interest premium of prenatal baby support loans going forward in its Government Decree No. 150/2022 issued on 14 April 2022 and effective from 29 April 2022, reducing it from 2 to 1 per cent, and left the multiplication factor of 130 per cent unchanged, neither retroactive nor future changes can be expected. Therefore, the only thing that can prevent the heavy use of FVTPL measurement in financial statements in the long run along with the corresponding negative user experience is a potential resolution by the IASB.

² IFRS 9 B4.3.8

³ These rules of IFRS 9 were included verbatim in the previous standard, IAS 39, but in that case the embedded derivative had to be separated from the contract, and it had to be presented at FVTPL, so the basic contract could remain at AC.

This analysis presented the dilemmas related to state-subsidised loans with a 1.3 multiplication factor as well as the relevant rules of the IFRS framework and the typical characteristics of the loans. All aspects of the latter were compared to the various levels of IFRS requirements, and it was demonstrated that overall recognising such loans at amortised cost results in the most reliable and faithful representation of these instruments.

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