

FSI Briefs

No 19

Rising interest rates and implications for
banking supervision

Rodrigo Coelho, Fernando Restoy and Raihan Zamil

May 2023

FSI Briefs are written by staff members of the Financial Stability Institute (FSI) of the Bank for International Settlements (BIS), sometimes in cooperation with other experts. They are short notes on regulatory and supervisory subjects of topical interest and are technical in character. The views expressed in them are those of their authors and not necessarily the views of the BIS or the Basel-based standard-setting bodies.

This publication is available on the BIS website (www.bis.org). To contact the BIS Media and Public Relations team, please email press@bis.org. You can sign up for email alerts at www.bis.org/emailalerts.htm.

© *Bank for International Settlements 2023. All rights reserved. Brief excerpts may be reproduced or translated provided the source is stated.*

ISSN 2708-1117 (online)
ISBN 978-92-9259-655-2 (online)

Rising interest rates and implications for banking supervision¹

Highlights

- *The recent market turmoil exposed heightened vulnerabilities of banks with material exposures in long-term, fixed rate assets that are fuelled by shorter-term, less stable funding. As interest rates rise, such entities may incur significant declines in asset values, while being exposed to volatile funds providers who may flee at the first sign of trouble, triggering a broader crisis of confidence.*
- *While regulatory requirements are fundamental, they cannot, in isolation, address all ways in which higher rates could impact a bank's solvency and liquidity. Moreover, capital requirements are sensitive to banks' accounting classification choices, while liquidity rules are premised on assumptions about deposit stickiness and the ability to sell assets at a reasonable cost.*
- *The supervisory review process, on the other hand, takes into account bank-specific characteristics and provides supervisors with various tools to address the confluence of risks caused by rising rates, and the ability to act preemptively before risks crystallise.*
- *Further guidance that supports supervisors' ability and will to act may help to provide structure and consistency to supervisory decision-making, while allowing room for judgment.*

1. Introduction

Recent developments in the international banking sector have illustrated that the largest, quickest and broadest rise in interest rates since the 1980s poses substantial challenges for banks and prudential supervisors. A rapid increase in interest rates may adversely affect a bank's loan quality, placing downward pressure on loan valuations.² But, even without a deterioration in credit quality, some banks may be exposed to a sudden and severe upward shift in policy rates, particularly against the backdrop of a decade of exceptionally low interest rates, which encouraged banks to take on greater risks in search of yield. This is the case in particular for banks with a significant proportion of longer-term, fixed rate assets that are supported by shorter term, less stable funding.³ While their business models may differ, banks with such characteristics are particularly susceptible to compressed net interest margins and poor earnings performance, while being exposed to significant market value declines on their asset base.⁴

On the liability side, banks with "core deposits"⁵ have a natural hedge against rising interest rates since they may pay below market rates of interest and still retain those funding sources. However, banks

¹ Rodrigo Coelho (rodrigo.coelho@bis.org), Fernando Restoy (fernando.restoy@bis.org) and Raihan Zamil (raihan.zamil@bis.org), Bank for International Settlements. The authors are grateful to Esther Künzi for administrative support.

² International Financial Reporting Standards (IFRS) 9 requires banks to reduce the carrying value of a loan once the exposure has experienced a significant increase in credit risk since origination or is otherwise impaired. See IASB (2014) for further information.

³ This includes banks with significant investments in high-quality instruments such as fixed rate government securities as well as fixed rate loans whose credit quality has not yet deteriorated. This is because the underlying cash flows from all such exposures will be below prevailing market rates of interest, causing a decline in their economic values.

⁴ Many banks benefit from rising interest rates, helping to expand their net interest margins and profitability. This is because banks are typically able to reprice their loans to market interest rates, while the rates paid on deposits tend to lag.

⁵ Core deposits typically include retail depositors that are covered under national deposit guarantee schemes.

that rely on less stable funds providers⁶ are subject to elevated liquidity risks which are amplified when interest rates rise or their credit condition deteriorates. Less stable funds providers are more sensitive to a bank's financial health and could flee at the first sign of trouble or may seek higher deposit yields in other institutions. If large depositors withdraw funds, banks may be forced to sell depreciated fixed income portfolios, crystallising losses. If their financial situation deteriorates, other funds providers may also flee, requiring banks to sell additional securities at a loss, further pressuring their solvency. This "doom loop" was evident in the recent banking turmoil in some advanced economies.

Therefore, through different interconnected channels, interest rate hikes may simultaneously affect banks' assets and liabilities in ways that can deteriorate their solvency and liquidity positions. The magnitude of the impact, however, depends on the composition of banks' balance sheets and their business models. In addition, the accounting classification choices of banks and whether banks adopt the Basel Framework's definition of Common Equity Tier 1 (CET1) capital determine whether fluctuations in fair value affect banks' solvency metrics. While bank boards and senior management are the first line of defence in managing and overseeing the cumulative set of risks posed by rising rates, prudential regulation and supervision also have an important role to play (Hernández de Cos (2023)). Pillars 1 and 2 of the Basel Framework aim to address the implications of rate shocks on a firm's capital and liquidity risk profile.

Pillar 1 prescribes minimum capital and liquidity requirements that, by design, are either narrow in scope or are not tailored for each bank's risk profile. Therefore, it cannot capture bank-specific risks posed by rising interest rates and falling asset values across a bank's balance sheet. For example, Pillar 1 requires capital coverage for adverse fluctuations in fair value for trading book exposures, which excludes all banking book items. In regards to liquidity, the requirements are based on assumptions with respect to banks' ability to sell liquid assets and the relative stability of their funds' providers that may not always reflect a bank's liquidity risk profile. The Pillar 2 supervisory review process, on the other hand, equips supervisors with a broad range of tools to identify, assess and, if warranted, require remedial actions to address the collective impact of heightened interest rate, liquidity and business model risks on a firm's overall risk profile.

This brief explores how the effects of rising interest rates on bank balance sheets are addressed in existing accounting and prudential frameworks and outlines their supervisory implications. Section 2 takes stock of the accounting valuation choices of banks and explains how banks' decisions about the classification and measurement of financial instruments have an effect on their financial statements. Section 3 outlines the interactions between accounting and prudential frameworks, including how they affect regulatory capital. It also discusses the extent to which Pillars 1 and 2 of the Basel Framework address the multitude of prudential risks associated with a rapid rise in interest rates. Section 4 concludes. The annex provides an example of how banks' accounting reclassification choices can influence regulatory capital.

2. Accounting frameworks

The accounting framework applicable in each jurisdiction and the choices banks make about the classification and measurement of financial assets lay the foundations for how an institution records assets and liabilities in its financial statements. A bank's financial statements are used by market participants and rating agencies to assess a bank's overall financial health. They are also used by banking supervisors as a starting point to calculate key prudential ratios, including regulatory capital ratios.

⁶ Less stable funds providers may include large depositors that are not insured by deposit guarantee programmes and short-term bank debt holders.

Classification and measurement – implications for banks' financial statements

Most jurisdictions (over 140 countries) follow accounting rules prescribed under the International Financial Reporting Standards (IFRS). Some countries, however, do not follow IFRS. In the United States, entities follow US Generally Accepted Accounting Principles (US GAAP), which are similar to, but not the same as, applicable IFRS standards with respect to classification and measurement of financial assets. Both frameworks allow banks to classify and measure assets in one of three categories, as outlined below.

- *Amortised cost*: Most bank assets, including loans and fixed income securities that are designated as held to maturity (HTM), are accounted for at amortised cost if they meet applicable requirements under IFRS⁷ or US GAAP⁸. The consequences of this accounting designation mean that any fluctuations in the fair value of such instruments (including any unrealised gains and losses) are not reflected in asset values, the profit and loss (P&L) statement or shareholder equity unless the assets are sold. US GAAP and IFRS, however, have different rules with respect to the potential accounting and classification repercussions of any sales from the amortised cost category, with the former⁹ taking a more stringent stance than the latter.¹⁰
- *Fair value through profit and loss (FVPL)*: For financial instruments accounted for at fair value, banks can choose, if they meet applicable IFRS or US GAAP requirements, to recognise the associated unrealised gains and losses through the P&L statement (net income). Typically, financial assets kept in this category are those that are held for short-term trading. From a financial reporting perspective, it means that for exposures measured under the FVPL category, the unrealised and realised gains and losses immediately affect the balance sheet, the P&L statement and shareholder equity.
- *Fair value through other comprehensive income (FVOCI)*: The third alternative is for banks under both IFRS and US GAAP to account for financial instruments at fair value and to recognise the unrealised gains and losses through a component of shareholder equity called other comprehensive income (OCI). Typically, these are financial instruments that are carried at fair value for purposes other than trading, for example fixed income securities that are periodically sold to meet liquidity needs. From a financial reporting perspective, the unrealised gains and losses associated with FVOCI exposures only affect shareholder equity, shielding the P&L statement from any changes in the fair value of the underlying instruments.

⁷ IFRS 9 allows banks to measure a financial asset at amortised cost if: (i) the financial asset is held within a business model to hold and collect contractual cash flows and (ii) the cash flows of the underlying financial assets are solely payments of principal and interest.

⁸ US GAAP allows banks to classify debt instruments in amortised cost if the bank has the intent and ability to hold the underlying assets to maturity.

⁹ Under US GAAP, all debt securities held in this category are generally expected to be held to maturity. Sales of HTM securities beyond the circumstances noted in the standard may call into question an entity's stated intention to hold (other debt securities in the future) to maturity. If a sale (or transfer) of an HTM security results in a "tainting" event, all remaining HTM securities must be transferred to the "available for sale" category (eg FVOCI) and thus, subject to fair value accounting. Institutions subject to the tainting rule are typically not allowed to classify securities in HTM for the next two years.

¹⁰ Under IFRS, as long as an entity's business model supports the amortised cost designation (eg a business model whose objective is to hold assets to collect cash flows), there is no explicit requirement for an entity to hold all of those instruments to maturity, and sales of financial assets held in the amortised category do not necessarily change the entity's underlying business model. While IFRS provides a non-exhaustive list of examples where sales from the amortised cost category can occur without changing an entity's business model, the standard is silent on the potential accounting repercussions when sales from the amortised cost category trigger a change in a firm's business model.

Transfers of debt securities between classification categories

In the current environment of rising interest rates and unrealised losses on fixed income securities, banks may be tempted to reclassify securities from the fair value to the amortised cost measurement category. While IFRS and US GAAP prescribe conditions that must be met before reclassifications are allowed, supervisors need to be aware of the financial implications of such reclassifications. In short, while the underlying economics of the transferred assets may not change, banks' reported financial statements and shareholder equity may be artificially enhanced if such reclassifications occur. In this context, IFRS and US GAAP have differing guidance, as noted below.

- *Reclassifications from FVOCI to amortised cost under IFRS:* at the reclassification date, the cumulative unrealised gain or loss previously recognised in OCI is removed and adjusted against the fair value of the bond. Therefore, the bond is measured at the reclassification date as if it had always been measured at amortised cost.
- *Reclassifications from FVOCI to amortised cost under US GAAP:* at the time of reclassification, the transfer price is the bond's current fair value (including any unrealised losses or gains previously recognised in OCI), which becomes the amortised cost basis for the underlying asset. All accumulated unrealised gains or losses remain in the OCI category and are amortised over the life of the security.

While both approaches allow banks to shield themselves from further market value declines associated with the transferred asset, the treatment under IFRS is more advantageous to banks. This is because IFRS allows all unrealised losses associated with the underlying bond to be immediately removed in FVOCI, providing an instantaneous and potentially significant boost (depending on the size of the unrealised losses of the transferred exposure) to reported shareholder equity.

3. The prudential framework

The Basel Framework's minimum capital and liquidity requirements in Pillar 1 combined with a robust supervisory review process under Pillar 2 provide ample scope for authorities to address the risks posed by rapidly rising interest rates. These requirements, contextualised within the current macro-financial environment and how they interact with applicable accounting frameworks (where relevant), are outlined below.

Pillar 1

Regulatory capital

The Basel Framework requires internationally active banks to comply with two minimum regulatory capital requirements: (i) risk-based capital (RBC) ratios and (ii) a leverage ratio. The extent to which these requirements take into consideration declining asset values in a period of rising rates and are affected by banks' accounting classification choices are discussed below.

- CET1 RBC ratios: minimum RBC requirements aim to cover banks' credit, market and operational risks. The most commonly cited RBC measure is the CET1 ratio, calculated as CET1 capital divided by risk-weighted assets (RWA).

$$\frac{\text{CET1 capital (common shares + retained earnings + other comprehensive income)}}{\text{RWAs (credit + market + operational RWA of banks)}}$$

- Leverage ratio: the leverage ratio is a non-risk-based measure designed to constrain excessive leverage in banks and to backstop the RBC measure. It is calculated as Tier 1 capital divided by the exposure measure (which is driven by the accounting value of exposures).

$$\frac{\text{Tier 1 capital (CET1 + additional T1 capital)}}{\text{exposure measure (on – balance sheet exposures + off – balance sheet exposures + other exposures)}^{11}}$$

The numerator of both ratios incorporates unrealised losses (or gains) associated with the two accounting classification categories that require fair value accounting (eg FVPL or FVOCI), as illustrated in Table 1. In addition, the numerator of both metrics is sensitive to and can materially change based on the accounting (re)classification choices of banks. The annex provides an example of how a reclassification of assets from the FVOCI portfolio to the HTM category, under IFRS, can substantially boost banks' equity and, therefore, regulatory capital without any substantive change in the prudential profile of the institution.

Accounting designation and impact on banks' financial statements and regulatory capital

Table 1

Classification category	Asset valuation	Impact on earnings	Impact on shareholder equity	Impact on CET 1 capital
Amortised cost	<ul style="list-style-type: none"> • measured at amortised cost • subject to ongoing test for decline in amortised cost due to erosion in credit quality 	<ul style="list-style-type: none"> • unrealised gains and losses not recognised in P&L • realised gains and losses recognised in P&L 	<ul style="list-style-type: none"> • unrealised gains and losses do not affect shareholder equity • Realised gains and losses are recognised in shareholder equity 	<ul style="list-style-type: none"> • unrealised gains and losses do not affect CET1 • realised gains and losses affect CET1
FVPL	<ul style="list-style-type: none"> • measured at FV 	<ul style="list-style-type: none"> • unrealised and realised gains and losses are recognised in P&L 	<ul style="list-style-type: none"> • unrealised and realised gains and losses affect shareholder equity 	<ul style="list-style-type: none"> • unrealised and realised gains and losses affect CET1
FVOCI[ⓐ]	<ul style="list-style-type: none"> • measured at FV 	<ul style="list-style-type: none"> • unrealised gains and losses not recognised in P&L • realised gains and losses recognised in P&L 	<ul style="list-style-type: none"> • unrealised and realised gains and losses affect shareholder equity 	<ul style="list-style-type: none"> • unrealised and realised gains and losses affect CET1

ⓐ Under IFRS, if an FVOCI exposure is classified as equity, the realised gains and losses remain in OCI and do not impact the P&L statement.

Source: FSI analysis.

The calculation of the denominator of both solvency ratios differs. The denominator of the CET1 RBC ratio incorporates capital requirements under the market risk framework, for potential losses arising from movements in market prices for exposures held in the trading book. In practice, this means that exposures classified for accounting purposes as FVPL are subject to market risk capital requirements, while those in the banking book, including exposures held at amortised cost and FVOCI are generally beyond the scope of the market risk capital framework.¹² The denominator in the leverage ratio is driven, once

¹¹ Other exposures include derivative exposures and securities financing exposures.

¹² Unrealised losses arising from changes in interest rates of banking book exposures, which were at the epicentre of the recent market distress, are not covered under Pillar 1 but are addressed by the standard for interest rate risk in the banking book which is part of Pillar 2.

again, by banks' accounting classification choices, meaning that its coverage is based on the carrying values of HTM exposures (amortised cost) and FVPL and FVOCI exposures (fair value).

From the above, it could be argued that Pillar 1 requirements do not provide for capital coverage of all risks posed by interest rate movements on banks' solvency position and are quite sensitive to firms' accounting policies in ways that may not necessarily be compatible with prudential objectives.

Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR)

The LCR is designed to ensure that banks hold a sufficient reserve of high-quality liquid assets (HQLA) at least as large as expected total net cash outflows over a stress period of 30 calendar days. HQLA comprises assets that can be easily and immediately converted into cash, by way of sale or repo, at little or no loss of value, including in periods of severe idiosyncratic and market stress. Under this framework, assets considered the most liquid (level 1) such as (long-duration) government securities are included in the stock of HQLA at their market value while less liquid assets that meet certain requirements (level 2) are included subject to a haircut to their market value.¹³

Total net cash outflows, in turn, are defined as the total expected cash outflows minus the total expected cash inflows arising in the stress scenario. Total expected outflows are determined by applying different runoff rates to the outstanding balances of various categories of liabilities and off-balance sheet commitments, based on the amount that authorities would expect to be drawn down in a stress scenario.¹⁴

The NSFR aims to promote resilience by creating incentives for banks to fund their activities with more stable funding sources on an ongoing basis, hence preventing excessive liquidity and maturity transformation. To achieve this objective, the NSFR requires banks to have at least the same amount of available stable funding relative to the required stable funding.¹⁵ Most definitions in the NSFR standard mirror those in the LCR framework.¹⁶

As Pillar 1 requirements, the LCR and the NSFR standards, by design, make simplified assumptions on the quality and liquidity of banks' assets and the relative stability of their funding sources which may not necessarily reflect the liquidity risk profile of individual banks. Indeed, some banks may be able to report LCR and NSFR ratios comfortably above 100% and still face significant liquidity pressure, particularly in a rapidly rising rate environment where asset and liability assumptions on long-dated HQLA and some liability funds providers may no longer hold. In addition, the impact of social media on the speed at which deposit outflows can occur may further complicate the calibration of liquidity requirements. For these reasons, bank-specific liquidity and funding risks are best addressed under Pillar 2.

Pillar 2

The Pillar 2 supervisory review process aims to ensure that banks have adequate capital and liquidity to support their underlying risks, especially risks that are not covered or not fully covered by Pillar 1. Pillar 2 also seeks to ensure that risk management and internal controls at each bank are aligned with its overall risk profile.

Pillar 2 is a principles-based standard¹⁷ that is premised on sound judgment. The flexibility provided under the Framework makes it particularly useful to take remedial actions, where necessary, if

¹³ Basel Framework, LCR 30.

¹⁴ Basel Framework, LCR 40.

¹⁵ In the context of this standard, "available stable funding" is defined as the portion of capital and liabilities expected to be reliable over the one-year time horizon; while the "required stable funding" depends on the liquidity characteristics and residual maturities of the various assets held by the bank as well as those of its off-balance sheet exposures.

¹⁶ Basel Framework, NSF 20.

¹⁷ Basel Framework. SRP 20.

specific vulnerabilities of individual banks are not sufficiently addressed by Pillar 1. This is because the combination of various Pillar 2 outputs, including supervisory assessments of interest rate risk in the banking book (IRRBB), supervisory review of liquidity risk, stress tests and business model analysis allow supervisors to develop an informed, comprehensive assessment about banks' ability to manage their main risk exposures and the sustainability of their business models.¹⁸ These collective assessments form the basis for any potential supervisory actions (both qualitative and quantitative), which in turn can help to address problems in banks at an early stage and ideally before risks crystallise.¹⁹ As such, an effective implementation of Pillar 2 has the potential to make supervision more intrusive and forward-looking.

IRRBB

The IRRBB framework focuses on the current and prospective risk to earnings and capital from adverse movements in interest rates for all banking book exposures, including those held at amortised cost or in the FVOCI category.²⁰ The earnings perspective considers the effects of changes in interest rates on a bank's net interest income (NII). The risk to capital is assessed through an economic value of equity (EVE) approach, which estimates a hypothetical fair value of all banking book exposures under a range of adverse interest rate scenarios. Under this framework, banks with a change in EVE equal to or above 15% of their Tier 1 capital are considered outlier banks and are therefore subject to higher supervisory scrutiny.

Banks with a significant proportion of exposures in longer-term, fixed rate assets that are supported by shorter-term, less stable funding may be particularly vulnerable from both NII and EVE perspectives in a rising rate environment. In practice, the results of both approaches rely heavily on key assumptions. For most banks, the assumptions that they make on their non-maturity deposits (NMDs²¹) – particularly in an environment of rapidly rising rates – often drive IRRBB model outcome. As a result, unless key NMD modelling assumptions are realistic, it is unclear whether banks with a large volume of long-duration assets that are funded by NMDs would be considered outlier banks and thus subject to heightened supervisory focus, including the need for supervisory actions.

A key challenge for all supervisors is to assess whether banks have sufficient earnings and capital to absorb their level of short-term (NII) and longer-term (EVE) exposures to interest rate risk. In this context, further guidance on how to assess the relative stickiness / price sensitivity of NMDs may help supervisors to form conclusions on the risks posed by a bank's IRRBB posture.

Supervisory review of liquidity risk

The magnitude of the deposit runs observed during the recent market turmoil suggests that the assumptions around the stickiness of deposits embedded in the LCR and NSFR may not always hold. That does not necessarily imply that runoff rates applicable to all banks need to be recalibrated. Instead, it may indicate that supervisors, through Pillar 2, should require individual banks to hold additional HQLA if they deemed that risks faced by such banks are not sufficiently captured by Pillar 1. This would be the case, for example, if excessive concentration of deposits from a few sources would make funding more unstable than what is implied by standard runoff rates.²²

¹⁸ See BCBS (2019) and Duckwitz et al (2019) for an overview of Pillar 2 supervisory review practices and approaches.

¹⁹ See Board of Governors of the Federal Reserve System (2023) for a detailed discussion on the failure of Silicon Valley Bank and the supervisory challenges involved in taking actions at an early stage.

²⁰ Exposures held in the trading book (eg typically those classified as FVPL for accounting purposes) are excluded from this standard as they are subject to formal Pillar 1 RBC requirements under the market risk framework.

²¹ These include assumptions on NMD pricing sensitivity and NMD runoff rates under a range of adverse rate scenarios.

²² Other factors may include the spread between the bank's offering rates and market rates, the nature of its depositor base and competition.

Similarly, supervisors could require specific banks to hold additional HQLA depending on the characteristics of such assets. For example, while long-term, fixed rate government securities are often eligible to be included in the stock of HQLA without any haircut, such assets have a high sensitivity to interest rate changes. In practice, this means that the stock of longer-term HQLA falls when interest rates rise, regardless of their accounting classification. Therefore, an additional Pillar 2 liquidity requirement could be justified on the basis of a higher exposure of such assets to interest rate risk.

Stress testing

Risk management requirements aim to ensure that banks properly identify, measure, monitor and control all the relevant risks to which financial institutions are exposed. These include requirements for banks to regularly conduct stress tests, with the results of these exercises informing banks' and supervisors' assessments of the banks' capital and liquidity adequacy.²³ Supervisors also conduct both top-down and bottom-up stress tests as part of their supervisory review process, with similar objectives.

Rapid hikes in interest rates are common features of such exercises, often affecting banks directly, through losses in their trading portfolio, and indirectly, by means of increases in non-performing loans. More direct impacts of changes in interest rates to exposures in the banking book, such as losses in HTM portfolios, are often outside the scope of these exercises.²⁴ In addition, while most banks and supervisors conduct stress tests to assess the adequacy of both capital and liquidity, such exercises typically have a constant balance sheet assumption (eg full deposit stickiness) and do not take into account the interplay between capital and liquidity and, in particular, the doom loop observed in recent market developments.²⁵ A more holistic approach, which combines the above elements, should give supervisors a more comprehensive view of the potential impact of rising interest rates on banks' safety and soundness.

Business model risk

Business model analysis (BMA) is a key component of the supervisory review process in many jurisdictions. BMA aims to assess banks' ability to generate sustainable returns over the medium and long term. Accordingly, it involves evaluating the implications of banks' risk appetite and strategic decisions as well as understanding the multiple risk concentrations arising from a bank's exposures (eg to long-term fixed rate assets) and funding (eg from uninsured deposits and wholesale funds providers), and determining whether they are adequately managed. A comprehensive BMA also aims to assess a bank's ability to address changes in its operating environment, including to rising interest rates. As such, BMA is a highly effective tool to address banks' exposure to significantly higher rates, particularly if it allows supervisors to identify banks' vulnerabilities at an early stage and act before business models become unsustainable.²⁶

4. Conclusions

Recent episodes highlight how rapid interest rate hikes affect banks' solvency and liquidity position, through different interconnected channels, depending on banks' accounting classification choices, balance sheet characteristics and business models. They also underscore the importance of banks adopting the Basel Framework's definition of CET1 capital to ensure that market value fluctuations of all exposures

²³ BCBS (2018).

²⁴ Stress tests embedded in the IRRBB framework are well placed to take these developments into account.

²⁵ See Baudino et al (2018) for examples of system-wide stress test exercises conducted in selected jurisdictions.

²⁶ Coelho et al (2022).

subject to fair value accounting, are, at a minimum, reflected in the numerator of both CET1 RBC²⁷ and leverage ratios.

While Pillar 1 plays an important role in ensuring that banks comply with baseline harmonised requirements, the vulnerabilities exposed by rising interest rates and declining asset values can result in a confluence of prudential risks. Many of these risks are beyond the scope of Pillar 1 and are more effectively addressed through a robust supervisory review process under Pillar 2. This includes assessing the supervisory implications of heightened IRRBB exposures and their interactions with a bank's liquidity risk profile and, more generally, the risks associated with an unsustainable business model due to concentrated exposures in longer-term, fixed rate assets that are funded by shorter-term, less stable funding.

In addition, the recent market turmoil underscored the importance of assessing whether minimum capital and liquidity requirements under Pillar 1, should be supplemented by Pillar 2 measures to account for bank-specific vulnerabilities and the impact of some firms' accounting policies on reported regulatory capital. By deploying quantitative (eg capital and liquidity add-ons) and, especially, qualitative measures (eg banks enhancing risk management and internal controls), supervisors can act on such weaknesses before they crystallise, hence mitigating the risk of a crisis of confidence.

However, making the right calls at the right time on the most consequential issues that drive a firm's overall risk profile is easier said than done. The principles-based nature of Pillar 2 – which is premised on supervisors' ability and will to exercise sound judgment – can result in divergent supervisory practices within and across jurisdictions. While this latitude may be necessary to accommodate jurisdiction-specific circumstances, any excessive discrepancies in implementation could lead to unwarranted fragmentation and could have an impact on financial stability. Authorities may therefore consider whether further guidance on the implementation of Pillar 2 is warranted to provide more structure and consistency in supervisory decision-making and, more broadly, to enhance the quality of supervision at the global level.

²⁷ In terms of risk coverage (denominator of the CET1 RBC ratio), authorities may consider the merits of extending the reach of the market risk capital framework to encompass potential losses from movements in market prices for exposures held in the FVOCI category. Since market value fluctuations of FVOCI exposures affect the numerator of the CET1 RBC ratio, it may be prudent to provide a symmetrical treatment in the calculation of the denominator (to the extent that some of these exposures are not already subject to a market risk capital charge).

References

Basel Committee on Banking Supervision (BCBS) (2018): *Stress testing principles*, October.

——— (2019): *Overview of Pillar 2 supervisory review practices and approaches*, June.

Baudino, P, R Goetchman, J Henry, K Taniguchi and W Zhu (2018): “Stress-testing banks – a comparative analysis”, *FSI Insights on policy implementation*, no 12, November.

Board of Governors of the Federal Reserve System (2023): “Review of the Federal Reserve’s Supervision and Regulation of Silicon Valley Bank”, 28 April.

Coelho, R, A Monteil, V Pozdyshev and J-P Svoronos (2022): “Supervisory practices for assessing the sustainability of banks’ business models”, *FSI Insights on policy implementation*, no 40, April.

Duckwitz, V, S Hohl, K Weissenberg and R Zamil (2019): “Proportionality under the Pillar 2 of the Basel framework”, *FSI Insights on policy implementation*, no 16, July.

Hernández de Cos, P (2023): “Banking starts with banks: initial reflections on recent market stress episodes”, keynote speech at the Institute of International Finance Roundtable on the Shifting Risk Landscape, 12 April.

International Accounting Standards Board (IASB) (2014): *IFRS 9 Financial Instruments*, July.

Annex

Banks’ accounting classification choices, including reclassifications, have profound implications for banks’ reported CET1 RBC and leverage ratios. Consider a bank (Bank A) with the following balance sheet characteristics.²⁸

Accounting classifications and implications for CET1 RBC and leverage ratios Table 2

	Carrying value on balance sheet	Unrealised losses on HTM or FVOCI exposures
Total exposures ^①	1,800	
Amortised cost	160 (HTM government securities)	30
	1,080 (loans)	200
FVPL	100 (government securities)	
FVOCI	460 (government securities)	80
Total RWA	888	
CET1 capital (under Basel III)	80 (includes 80 unrealised loss on FVOCI)	

① For purposes of this illustration, it is assumed that the bank has no derivatives or off-balance sheet items, so that total exposures equals total assets.

Source: FSI analysis.

²⁸ All figures in this annex do not consider the effects of deferred tax assets on regulatory capital.

Based on the figures noted in Table 2, Bank A's CET 1 RBC and leverage ratios are as follows:

- CET1 risk-based capital (RBC) ratio: 9% (80/888)
- Leverage ratio: 4.44% (80/1,800)

Reclassifications from FVOCI to HTM

The following illustrates the regulatory capital implications if Bank A elects to reclassify its entire FVOCI portfolio to HTM. Under IFRS, the unrealised losses (or gains) of all transferred FVOCI assets are removed from OCI at the time of transfer and reflected in the HTM category, effectively neutralising the impact of the Basel III definition of CET1 capital, which may be advantageous to banks in a rising rate environment. Therefore, these unrealised losses are also removed from the calculation of CET1 capital, providing a significant boost to Bank A's CET1 RBC and leverage ratios, as noted in Table 3:

Reclassification from FVOCI to HTM and implications for CET1 RBC and leverage ratios

Table 3

	Before reclassification	After reclassification	Explanation
Total exposures	1,800	1,880	80 add-back to total exposures reflects unwind of unrealised losses from FVOCI to HTM
Amortised cost	160 (HTM govt securities)	700 (HTM govt securities)	Add-back of 540 (460 FV + 80 unrealised loss) reflects transfer from FVOCI to HTM
	1,080 (loans)	1,080 (loans)	No change
FVPL	100 (govt securities)	100 (govt securities)	No change
FVOCI	460 (govt securities)	0	To reflect HTM reclassification
Total RWA	888	888	No change
CET1 capital (under Basel III)	80	160	To reflect immediate removal of 80 in unrealised losses from FVOCI
CET1 RBC ratio	9% (80/888)	18.01% (160/888)	Due to immediate removal of 80 in unrealised losses from FVOCI in numerator
Leverage ratio	4.44% (80/1800)	8.51% (160/1880)	Reflects removal of 80 in unrealised losses in FVOCI in the calculation of the numerator, more than offsetting the same increase in total exposures in the denominator

Source: FSI analysis.