

Simpler and stronger bank solvency and resolution requirements.

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Abstract

Simplification of banks' requirements has recently attracted the interest of regulators, supervisors, academics and bankers. This paper makes a proposal to drastically reduce complexity in solvency and resolution requirements, focused on the European Union framework, probably the most complex in the world. This proposal can be useful for other jurisdictions as well, being fully aligned with the international standards of the BCBS and the FSB. The paper uses comparative data on a number of countries, including European Union and the United States, as preliminary evidence that the proposed reforms will not put the resilience of the banking system at risk.

Keywords: simplification, banking regulation, capital stack, solvency, resolution

JEL: G01, G21, G28, G33, G38

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1. Introduction

Simplification is the buzzword among banking regulators and supervisors. The Governing Council of the European Central Bank (ECB) set up in March 2025 a High Level Task Force on simplification of the European prudential regulatory framework, whose recommendations¹ have been already sent to the European Commission, the body entitled in the European Union (EU) to make legislative proposals to be agreed between the European Parliament and the European Council. The Single Supervisory Mechanism (SSM), the integrated banking supervisor for the Banking Union (BU) countries, is working on simplification as well². The European Banking Authority (EBA), the EU agency for developing banking regulation, has announced a program to simplify requirements of level 2 and 3, which means the technical regulations, instructions and guides that develop the level 1 or primary legislation in the EU³. The Single Resolution Board (SRB), or resolution authority for BU countries, is also working on simplification⁴. The European Commission has committed to publish a report on the situation of the EU banking sector by the second half of 2026, where simplification will be an important piece. In fact, in February 2026 it launched a consultation process to get input on competitiveness, Banking Union's completion and simplification of requirements. Legislation's changes proposals may follow suit as the European Council is also pressing for simplification of the financial services regulation⁵.

At the international level, the Basel Committee on Banking Supervision (BCBS) and the Financial Stability Board (FSB) are including simplification in their working programs, as well as the G20 American presidency, although the catch word is a different one (i.e. modernization of financial regulation and supervision).

In fact, Bowman (2025, 2026) explains what modernization means: a pragmatic approach to supervision and regulation, tailoring banks' requirements according to their profiles (i.e. reducing the community banks leverage ratio from 9% to 8% or modifying the enhanced supplementary leverage ratio for large banks); refocusing supervision on the most important financial risks and getting rid of an ever-expanding scope of unfocused activities like reputational risk or climate guidance; updating and indexing asset

¹ See, ECB (2025a).

² See, for instance, Donnery (2025a), ECB (2025b).

³ See Campa (2025).

⁴ See Braun-Munzinger (2025).

⁵ See European Council (2025) conclusions.

thresholds (i.e. adjusting regulatory thresholds by nominal GDP growth) so that borders among banks' groups are adjusted periodically; refocusing supervisory examinations on material financial risks and away from checking boxes in reviewing processes, procedures, and documentation, regardless of the level of risks; collecting less information from banks but more meaningful, as current requirements are not always used by supervisors; reviewing the application procedures (new licenses, mergers and acquisitions, etc.) to make them less cumbersome and more efficient; and, last but not least, increasing the transparency of supervisors' expectations. Therefore, a fully-fledged simplification agenda but the name.

Despite the current frantic activity around simplification, the interest in the matter is relatively recent. For instance, Draghi (2024) in its competitiveness report touches the matter at very high level when he mentions: "...the EU should also assess whether current prudential regulation, also in light of the possible upcoming implementation of Basel III, is adequate to have a strong and international competitive banking system in the EU". He adds up: "...where necessary revisit prudential regulation to have a strong and competitive banking system" just offering: "A minimal step...would be to create a separate jurisdiction for European banks with substantial cross-border operations that would be country blind from the regulatory, supervisory and crisis management viewpoints, the so-called 28th Regime". There is no specific chapter for banking in his report.

The mood started to change in Europe with the letter sent in February 2025 to Commissioner Albuquerque, in charge of financial services regulation, by the central bank Governors of the four largest economies of the European Union (Germany, France, Italy and Spain)⁶. They wrote:

"it is necessary to take a step back and make sure that the complexity of the cumulative layers of regulations in Europe does not constitute an obstacle to achieving our goals...we believe that a priority should now be to develop a "holistic" assessment of the rules that apply to European banks. To this end, a comprehensive analysis of the implications of all the standards should be carried out... This in-depth assessment must include the micro prudential, the macroprudential and the resolution frameworks... By identifying areas where the

⁶ See Escrivá et al (2025).

European framework is unduly complex and may create competitive distortions at international level, without any financial stability benefits, this analysis could also contribute to ensuring a level playing field with other major jurisdictions”.

The letter triggered a chain reaction in Europe where, suddenly, all agencies and institutions started to work on simplification, as well as Ecofin, the gathering of EU Ministers of Finance, providing political support to the process.

The banking industry has also been active in the simplification front recently. The Expert Group (2025) report “Less is More”, emphasizes the loss of competitiveness of the European financial sector putting the blame on the regulatory complexity of European regulations plus national differences and additions as well as to non-binding guides and expectations that, despite not being part of the legal requirements, in any case, they need to be followed. They favor a simplification process of all levels of requirements, limiting recommendations and guides, as well as increasing transparency. The European Banking Federation (EBF (2025)) claims that the EU’s macroprudential framework has become overly complex and fragmented, with multiple overlapping buffers and inconsistent application across Member States. Moreover, they consider that the EU supervisory framework has evolved into a *de facto* fourth layer of prudential requirements, often overriding level 1 regulation and imposing additional burdens on banks without sufficient transparency or consideration of economic impact. They also claim that the EU’s recovery and resolution framework has become increasingly complex and burdensome, placing significant operational and financial strain on banks. The Association for Financial Markets in Europe (AFME (2024)) asks for the removal of unnecessary burdens and duplicative requirements with a focus on the simplification of the macroprudential framework. The Institute of International Finance (IIF (2025)) criticizes the excessive discretion of supervisors, lack of coordination and predictability as well as some arbitrariness in their decisions, asking for limiting their discretion⁷.

But, what does the industry really mean when talking about simplification?⁸ Are they asking for the same level of requirements but being fulfilled more efficiently and effectively or are they aiming at a deregulation, a reduction of capital requirements? Regulators, supervisors and policy makers have been clear on the issue. For instance,

⁷ Restoy (2025) shares these concerns on supervisory excessive discretion and the need for bounding it.

⁸ See, for instance, Mazzocchi and Spitzer (2025).

Schnabel (2025): “Now is not the time for deregulation. Not only are the potential costs of deregulation large, but the benefits are doubtful too...there is no evidence for the claim that regulation has made European banks less competitive”; Nagel (2025): “...simplification in banking regulation is not synonymous with deregulation”; Buch (2025): “Simplification without deregulation requires strong guardrails...In practice though, it can be difficult to draw a clear line between simplification and deregulation”; Donnery (2025b): “...we must never sacrifice the resilience that was so hard-won in the aftermath of the global financial crisis-neither in the name of alleged competitiveness, nor under the banner of simplification. This is a red line. And it must remain one”; Braun-Munzinger (2025): “The simplification has its limits: we cannot support any attempt of deregulating our recent framework, nor undermining its credibility”.

A fair question is, simplification for whom? We see three main receivers of simplification.

First, the banking industry. The cost of compliance with numerous and detailed rules is significant⁹. Sometimes it can be a deadweight loss when very detailed reporting is scarcely used and/or partially duplicated; or small supervisory findings linger forever; or some requirements (e.g. general prior permission regime in resolution) are too cumbersome for banks with surplus over minimum requirements. EBA (2021) estimates annual total compliance costs for European Union banks at 24.2 billion euros using median values of its sample to extrapolate or at 66.3 billion euros using average values (see Table 1), of which reporting costs are 11.2 and 37.9 billion euros, respectively. In terms of total operating costs, using EBA estimate of 389.8 billion euros, 6.2% or 17% in median and average terms, or 0.05% and 0.79% in percentage of total assets, respectively¹⁰. These figures show that complexity comes with a significant cost.

Second, the investors. Understanding the rules is not easy. Comparisons across jurisdictions are not easy, as international standards are applied differently in each jurisdiction (being gold plated with different intensity, being applied almost in full but not

⁹ Gai et al (2019) distinguish between direct compliance costs, which includes the costs of resources allocated to comply with regulation and the costs of monitoring its compliance and enforcement (supervisors, auditors, consultancy and law firms) and other costs of complex regulations: reduced effectiveness, arbitrage incentives, changes in market structure, lower resolvability, higher opacity, hampering accountability and increasing potential regulatory capture. Direct compliance costs have an important fix component which impacts more than proportionally on small firms (Calomiris et al (2020)).

¹⁰ EBA Report advises to use median estimates as they represent the costs of a typical bank while the average may be strongly influenced by outliers which they consider overrepresented in their small sample of banks.

100%, allowing for instruments that cover same purposes but are contractually different, etc.).

Third, the supervisors themselves. The detail of (public) guides (level 3), expectations or range of best practices and of internal manuals seem very time consuming to read and even difficult to understand for the experts that need to apply them in their daily work, maybe reducing efficiency and effectiveness¹¹. Climate-related guides might be a case in point in Europe¹². Moreover, this might come with the cost of distracting resources from key lingering problems: governance and risk controls, for instance, as well as increasing direct costs of supervision.

This paper aims to contribute to the simplification debate, putting on the table an ambitious proposal focused on both solvency and resolution requirements, touching on adjacent issues where needed (e.g. supervisory processes and procedures) and supporting the arguments with data, when possible.

We propose to have a single micro prudential buffer and a single macroprudential buffer. The micro prudential buffer would encompass the current CCoB (capital conservation buffer), P2R (pillar 2 requirement) and P2G (pillar 2 guidance) requirements, opening up the possibility to disentangle capital requirements from SREP (Supervisory Review and Evaluation Process) and carry out a top-down stress test to set the new micro prudential requirements. Regarding the macroprudential buffer, letting aside the GSIIIs (globally systemically important institutions) and OSIIIs (other systemically important institutions) buffers, it would be useful to collapse the rest of buffers into a single one, which should be redefined along the lines of the CCyB (countercyclical capital buffer). Last but not least, for resolution requirements we propose to replace all the current requirements by a

¹¹ Altogether, internal manuals and external guides, expectations and best practices may run on the thousands of pages.

¹² In November 2020, before the EBA published its report on management and supervision of ESG risks, the ECB published its guide on climate-related and environmental risks, containing 13 detailed expectations to guide the dialogue with banks on the matter. It also carried out a climate stress test in 2022 and published the results of a detailed thematic review with a long list of good practices for climate-related and environmental risks in November 2022, complemented in December 2022 with another report on good practices on climate risk stress tests. It seems that European supervisors are well ahead of the curve on a negative externality that it could be argued that foremost requires a global and broader approach (i.e. a Pigouvian tax). In sharp contrast, US supervisors in October 2025 got rid of the Principles for Climate-Related Financial Risk Management (similar to SSM and EBA guides on climate risk management) with the argument that they may be distracting banks from the management of material financial risks (credit risk, interest rate risk and liquidity risk) and the belief they are not necessary (see Bowman (2026) for more details).

single 8% TLOF (total liabilities and own funds) requirement, to be fulfilled with fully subordinated instruments only.

The proposals do not imply either a reduction or an increase in requirements on average, although for specific banks they may result on a small increase or decrease of requirements from current levels. Unfortunately, we do not have the information to assess the impact of the proposals for the scope of banks that matter (i.e. banks under SSM/SRB remit which cover around 85% of total banking assets in the Banking Union countries). Nevertheless, we provide evidence on expected quantitative impact where possible and we challenge banks' arguments on the negative impact of regulatory requirements on their market values. Last but not least, the proposal is aligned with Basel III and FSB current frameworks, either in the letter or in resulting requirements.

The wind of simplification is blowing strong in Europe and beyond. It is an opportunity to reduce all that is not essential in the current framework to better protect the resilience of the banking sector while improving the competitiveness of the real economy freeing compliance and monitoring resources to foster growth and innovation.

The rest of the paper is organized as follows. Section 2 reviews the literature briefly. Section 3 presents the complexity of current requirements. Section 4 contains the proposal to reduce significantly that complexity. Section 5 presents some empirical evidence on the viability of a less complex and equally resilient framework. Section 6 concludes.

2. Literature review

Academics have not been strangers to the simplification debate. Haldane and Madouros (2012) launched a powerful missile against the Tower of Basel in a quite relevant forum. They argued for simplification of Basel rules along the following lines: pleading for the removal of internal models and coming back to simpler standardized approaches for both credit and market risk; higher regulatory relevance for the leverage ratio; lower dependence on Pillar 1 measures (i.e. regulatory requirements) and higher dependence on Pillar 2 (supervisors judgement) and Pillar 3 (market discipline) together with simpler and shorter rulebooks for supervisors to apply; penalties for banks on complexity and imposing regulatory constraints (i.e. quantitative limits) with less fear.

BCBS (2013) turned its attention to the complexity of the developed framework. They argued that the complexity was the result of desire for risk sensitivity of capital requirements. Nevertheless, they acknowledged the potential adverse consequences of the resulting complexity. They advanced, for consultation, a number of proposals, such as to explicitly recognize simplicity as an additional objective in capital regulation; enhancing disclosure; using additional metrics (market values of equity, equity and profit volatility, etc.); more effectiveness for the leverage ratio; to use floors to mitigate consequences of complexity (i.e. excessive optimization of capital by banks using their own internal models); even rising the possibility to have fundamentally different approaches to capital adequacy (leverage ratio and standardized approach only).

Herring (2018) explains the increasing complexity of Basel regulations as each round of reform attempts to correct perceived weaknesses in the previous regime. He claims that the outcome is a rather opaque regulatory framework, costly to monitor and enforce, with heavy compliance costs for the regulated firms. He also touches upon the political economy of the resistance to simplification and names banks, lobbyists, and legislators, as well as regulators, lawyers, accountants and industry consultants given their human capital invested in understanding the complexity. Gai et al (2019) point to the complexity of the IRB approach to compute banks' capital requirements although the solution is not promoting deregulation or an overly simple regulation but a cost-effective and robust one. Colliard and Georg (2025) propose new ways of measuring regulatory complexity going beyond the traditional page counting measures (i.e. length of regulation). Cecchetti et al (2025) raise two important points that transcend any simplification discussion. The first one is that there is no theoretical consensus on the optimal capital level¹³. The second one is that higher capital levels can be a competitive advantage, an issue repeatedly neglected by the industry. Bellomarini et al (2026), applying artificial intelligence (AI) techniques, show the high complexity of EU legislation while developing an AI software tool designated to improve its drafting.

From time to time some policy makers dare to make really ambitious proposals for simplification. Woods (2022) is a prominent example with a brave proposal: a single capital buffer calibrated to reflect both micro prudential and macroprudential risks, fully

¹³ Birn et al (2020) revisit this question finding support for capital ratios (risk-weighted) north of 10%, in line with earlier thinking and findings of BCBS. Bank of England (2025) refers to the optimal range of capital to support their recent measures to lower 1% its Tier 1 ratio requirement while Aikman and Vickers (2026) challenge it.

releasable in a stress, with a low minimum requirement to maximize the size of the buffer, only CET1 allowed, still risk-weighted and leverage-based requirements, with stress testing at the center of how to set capital levels.

Borio et al (2025) argue for a single minimum requirement to be only covered with CET1 on top of which there would be a cycle-neutral adjustable buffer to be added to the CCyB, retaining or removing the CCoB. They invent a new concept to replace the TLAC called ARLAC made only of eligible debt (i.e. no CET1 allowed). Their capital proposal is similar to Woods, although with a more complex adjustable buffer while the one in resolution embraces the German one (Nagel (2025)). Therefore, they depart from current international standards of both BCBS and FSB. There is no hint on calibration. The main argument to exclude CET1 from resolution requirements seems to be the theoretical inconsistency between the point of non-viability (PoNV) and the point of entry in resolution (PoER), one based only on CET1, the other including debt instruments. It is somewhat puzzling that they specify the PoNV exclusively in the space of capital forgetting the main determinant of non-viability which, for the vast majority of failed banks, is the exhaustion of liquidity (i.e. banks become non-viable when they (are about to) run out of liquidity). Put differently, a bank can become non-viable with very different levels of CET1. Credit Suisse, Silicon Valley Bank, Sberbank Europe, Banco Popular Español are just examples of it: they did not survive a liquidity run while CET1 was far away from the PoNV¹⁴.

As the simplification debate is starting to take shape, proposals and reflections have started to appear on stacking order, level 2/level 3 legislation, supervisory procedures, proportionality, reporting and scope of the process. Beau (2025), Cannata and Serafini (2025), Mazzocchi and Spitzer (2025), Mejino-López and Véron (2025), Schmitz et al (2025) are some relevant examples.

In this paper we do not go as far as asking for eliminating internal models for capital requirements computation but share the spirit of Haldane and Madouros (2012) and Dahlgren et al (2023) on Pillar 2 supervision. Regarding resolution, our proposal is really

¹⁴ Once a bank runs out of liquidity, its value plummets, which is acknowledged in the subsequent auction processes to resolve the bank (i.e. accounting own funds are worth very little if at all). Intuitively, how much is worth a bank that cannot open the following day?

ambitious, in the spirit of what Woods (2022) (or even Admati and Hellwig (2013)) did for solvency requirements.

3. Starting point. Complexity of requirements

Capital requirements increased significantly after the Great Financial Crisis for European banks. As a result, banks have shown a remarkable resilience in front of quite a number of shocks (Covid, inflation, 2023 banking crisis in US and Switzerland...). The ability to use private funds to resolve banks, instead of taxpayers money, has also surged in Europe in the last decade, as MREL (minimum requirement of own funds and eligible liabilities) and SRF (Single Resolution Fund) have been piled up by European banks. Moreover, the European banking sector has gone through a significant risk reduction (i.e. substantial and widespread decline in non-performing loans and significant increases in capital levels), while full risk sharing at EU level is still waiting to happen (i.e. no European Deposit Insurance System or EDIS yet)¹⁵.

Notwithstanding the huge improvement in banking resilience and financial stability in Europe, the solvency and resolution frameworks are quite complex, with a number of minimum ratio requirements, each one piling up a number of buffers and made of different instruments.

3.1. Solvency requirements

Starting with solvency requirements, banks need to fulfill four capital ratio minimum requirements (CET1, T1, Total capital and leverage ratio), which are made of different instruments (CET1, AT1, T2) and that pile up a number of requirements and buffers. Figure 1, left panel, provides an overview (see also EBA (2024) for a detailed explanation).

The **leverage ratio (LR)** is the simplest one with requirements not risk based. It has a minimum level of 3%. For GSIBs (Global Systemically Important Banks), it has a surcharge that is half of the GSIB requirement. LR can be fulfilled with CET1 but partially with AT1 as well. In Europe there is an additional P2R leverage ratio based on excessive leverage of the bank as well as a potential P2G recommendation based on the results of a

¹⁵ Machado (2026) points to this lack of EDIS as exacerbating the sovereign-bank nexus in Europe. It also contributes to explaining the low level of cross-border mergers and acquisitions among European banks.

stress test carried out by banks but monitored and adjusted, if needed, by the ECB. The leverage P2R is currently between 0.1% and 0.3% being applied to a handful of banks. Leverage P2G is not public.

Then, we have the other **three requirements which are risk-based: CET1 ratio, Tier1 ratio and Total Capital (TC) ratio**. The differences among them are on the minimum level of the Pillar 1 requirement: 4,5% in the CET1 ratio; 6% in the Tier 1, made of 4,5% CET1 and an additional 1,5% of AT1, and the TC ratio, that adds on top of the Tier 1 ratio a 2% of T2 instruments. Nothing prevents banks from using CET1 instead of AT1 and T2 to fulfill the requirements in the last two cases but it is really very rare they do it, as AT1 and T2 are cheaper to issue than equity given the lower level of risk they carry.

On top of these requirements, in each of the three risk based ratios, there is a **micro prudential** Pillar 2 requirement or P2R (which can be covered partially with AT1 and T2), the result of a very long and complex process called SREP (Supervisory Review and Evaluation Process), in the hands of micro prudential authorities (the SSM/ECB for Significant Institutions, around 110 banks covering around 85% of the total assets of the Banking Union banks')¹⁶. The SREP assesses the business model of the bank, the governance and internal controls and the capital level, breaking it into credit risk, interest rate risk in the banking book, operational risk and market risk, as well as the liquidity and funding risk. As a result of the assessment each bank is given a score (from 1, the best, to 4, the worst), which is the main input to determine the level of a bank's P2R requirement for the next year. The resulting P2R requirement is public information.

According to ECB (2025c), the average overall SREP score for 2025 was 2.5, remarkably stable (2.6 in 2024). 75% of banks were given the same score as the previous year. There is a small number of banks in the worst 2 categories (3- and 4) and the best ones (1 and 2+), which shows a lot of homogeneity among banks and a few outliers, once all risk

¹⁶ For those not familiar with the European Union (EU) framework, there is a single rule book with common minimum requirements for banks operating across the 27 countries integrating the EU. There is a joint supervisory mechanism called the Single Supervision Mechanism (SSM), engrained in the ECB, and made of 21 national competent authorities (i.e. country supervisors, in many countries central banks, in others supervisory agencies outside the central bank) from the 21 countries members of the Banking Union. The European Banking Authority (EBA) is the agency that develops the banking regulation for the 27 countries of the EU. Last but not least, the ESRB (European Systemic Risk Board) is a forum for macroprudential and systemic risk reflections at EU level, with a broad composition (ECB and the central banks of each of the 27 members of the EU, banking national supervisors, European agencies, European Commission, other national supervisory agencies, etc.) which makes it a heavy machinery to steer, and with no decision power on setting requirements. This architecture maybe in itself a source of additional complexity but it is not the object of this paper to analyze it. See Mejido-López and Veron (2025) for some reflections on the issue.

dimensions and risk controls have been taken into account (see Figure 2). As scores are the base for P2R requirements, it is expected a lot of stability in these requirements. Figure 3 confirms visually such intuition. Note that a bit more than half of the P2R is covered with CET1 (1.2%), again remarkably stable over time. This 1.2% CET1 is a relatively small part (11%) of the total CET1 required from banks on average.

A further statistical analysis of the last 3 years of SREP results shows that the average P2R requirement and the median ones were almost the same (2.23%, 2.26%, 2.26% and 2.21%, 2.25%, 2.25%, in 2023, 2024 and 2025, respectively). Standard deviation was 0.5 the last 3 years, despite the number of banks under the SSM remit increasing progressively: 102, 105 and 109. The number of banks within the boundaries of +/- one standard deviation around the mean is large and increasing (64, 75, 81), while the number of banks outside the +/- two standard deviations goes down to 3, 6 and 6. Considering the high stability, the whole scoring and P2R determination process seems easy to be automated. In fact, the SREP methodology contemplates an initial automatic scoring process. Obviously, qualitative matters (business model, governance, internal controls) are more difficult to automate but, in any case, either these elements do not show much variability or its weighting is small across banks (or both) given the overall stability and almost non-existence of outliers (i.e. banks outside two standard deviations). On top of the P2R requirement there is a capital conservation buffer (CCoB) set at 2.5% level.

Regarding **macroprudential requirements**, depending on whether the bank is a GSIB (GSII or Global Systemically Important Institution in European Union terminology) or an OSII (Other Systemically Important Institution) there is an additional surcharge¹⁷. GSII's requirements are aligned with those for GSIBs set by the FSB. The methodology to determine the GSII's is the same as for the GSIBs. Each country in the European Union, following a common methodology that partially mimics the one for GSII's, can nominate their own domestic systemic banks (OSII's), that is, the banks that are systemic in their country. This is in line with DSIBs at international level. Given the fact that the size of countries is very uneven in Europe, in small countries one can find an OSII with assets below 10 billion euros, while for large countries all their OSII's are above 100 billion euros. OSII's buffers are set by each national designated authority (i.e. the one in charge

¹⁷ Holscher et al (2025) explain the logic of capital requirements. In particular for GSIBs, given their higher system wide externalities in the event of their default, the probability of default needs to be sufficiently reduced to compensate for them via a capital surcharge (i.e. the GSIB buffer).

of macroprudential requirements which can be the same or different from the national competent authority). Figure 4, panel A, shows the diversity of OSII buffer requirements among countries. Note also the differences between the highest and lowest OSII buffers among countries.

On top of the GSII and OSII buffers, there is a countercyclical capital buffer (CCyB) that, in turn, may come with a so-called positive neutral (PN). Authorities started to develop such PN requirements when they wanted to have more room of manoeuvre in capital stack but the usual triggers to activate the CCyB did not work¹⁸. CCyB is decided at a country level, as lending and business cycles can be significantly different across European countries.

In Europe, a systemic risk buffer (SyRB) comes on top, which can be activated by national authorities to cover risks different from the cyclical ones. There are as many different reasons to activate the SyRB as SyRB exist, although they need to be different from cyclical risks that should be dealt with the CCyB. There is also the possibility to add a sectoral systemic risk (sSyRB) in case authorities see a systemic risk, different to the cyclical one, in only one or several sectors to whom the banking sector is exposed to (i.e. commercial real estate, high leveraged firms, etc.). Figure 4, panel B, shows the diversity of CCyB, SyRB and sSyRB requirements among European countries.

If the former tools were not enough, the CRR¹⁹ (article 124) also allows macroprudential authorities to increase the risk weighted assets for residential and commercial real estate exposures if they conclude that the risk weights or the loan to values breakdowns in the CRR (article 125 and 126, respectively) do not reflect the real risks. The former refers to the standardized approach. The same approach can be applied to IRB (internal risk-based) models by setting higher floors to the LGD (loss given default) calculations than the existing ones (article 164). It looks as a strange mingle of macroprudential supervisor responsibilities with the ones of the micro prudential supervisors.

To add another layer of complexity, article 458 of the CRR allows macroprudential authorities, in case they see changes in the intensity of macroprudential or systemic risks, to be more stringent in national requirements, by increasing capital levels (any of the four

¹⁸ BCBS (2024) shows the range of practices in implementing a PN CCyB, a source of complexity in itself given the variety and sophistication of the calibration techniques employed.

¹⁹ Capital Requirements Regulation (CRR) sets solvency requirements for European Union banks.

existing capital ratios), large exposures requirements, liquidity ratios, or the capital conservation buffer as the main measures. Article 458 works as a last resort tool to protect the banking sector from mounting risks. Accordingly, it has been used scarcely.

Moreover, national macroprudential authorities may set up borrower-based measures (BBMs). A typical BBM consists of limiting the amount of mortgages that can be granted to borrowers with LTV loans above a certain (prudent) threshold (e.g. 80%) or the level of debt to income or service of debt to income that a particular borrower is authorized to have in order to reduce lending to riskier individuals. Figure 4, panel C, shows the array of measures taken across Europe.

All the former macroprudential measures are decided by national authorities that can ask for reciprocation to other authorities if felt necessary. That is, if in the local market there is a branch of a foreign bank that operates in it, the local macroprudential authority can ask the home authority of that branch to apply the same requirement to the part of the business developed by the branch in the first country. The reciprocation aims not only at attaining the macroprudential objective but also to apply a level playing field among local banks, subsidiaries of foreign banks (already subject to the requirements of the local authority) as well as foreign branches. Additionally, the ECB has the possibility to top up the requirements set by national macroprudential authorities. This has happened rarely in the past, which does not necessarily imply that the ECB is not able to increase national requirements. Moral suasion and the stigma of being topped up may be as effective as the actual top up decision.

Finally, there is a (micro prudential) P2G requirement²⁰, based on a bottom-up stress test carried out by banks, under scenarios provided by the European Commission (baseline) and the ESRB (adverse), all below the umbrella of the EBA stress testing framework²¹. The results from the internal models of banks are discussed and, if needed, adjusted by the micro prudential supervisors (the SSM/ECB for the Banking Union countries). P2G is not publicly known as it is kept confidential between the bank and the micro supervisor. Therefore, investors and markets have some difficulties to clearly disentangle which part of the final level of capital kept by the bank comes from the stress test results and which

²⁰ Strictly speaking the P2G is not a requirement but a guidance.

²¹ As stated before, it is not the objective of this paper to touch upon the institutional complexities of the European financial stability surveillance framework.

part is the voluntary buffer the bank wants to hold by itself on top of supervisory requirements²².

Macroprudential buffers as well as P2G need to be fulfilled with CET1 alone.

Last but not least, each of the four capital requirements has an MDA (maximum distributional amount) trigger (see Figure 1, left panel). That is, if banks have an actual level of capital below the MDA threshold, they are constrained in dividend distribution (as well as AT1 coupon and bonuses payments), therefore preventing banks from depleting further their level of capital. Once they are above the thresholds, they can resume distributions²³. Please note that this is a formal threshold, enshrined in regulation, different from the expectations we mention in the paragraph below.

Overshadowing all the former requirements and buffers, there might be supervisory expectations of effective level of capital each bank needs to hold on top of the former requirements and guidance, playing potentially a role in dividend distributions or share-buy-backs (i.e. dividend pay-out might be capped if the bank does not exceed a certain threshold of capital). As far as we know, there is no public information on the criteria, rules, thresholds or policies on the matter. Again, as it is the case for the P2G unknown level, this may increase the difficulties for investors to infer capital and dividend policies of each bank. The ensuing uncertainty may have an impact on banks' capital planning as well.

For the sake of completeness, another source of additional complexity comes from the way risk-weighted assets are calculated. Banks can apply by default the standardized approach (SA approach) where basically the capital level is set in the regulation (i.e. mortgage exposures require X%, consumer loans Y%, etc.). At most, banks can use ratings from authorized rating agencies to calculate the risk weights of the exposures. If approved by the supervisors, banks can also use their internal risk-based models (IRB approach) to measure the risk of their assets. Inputs for those models are the probability of default of each counterparty (PD), the amount it will be lost once a counterparty defaults, or loss given default (LGD) and the amount of exposure, considering not only

²² It is fair to say that stress tests results are published individually for each bank, including the capital depletion in each scenario. Nevertheless, investors still need to assess how the results impact the capital requirements of each bank as the hypothesis behind the stress tests are substantive (e.g. static balance sheet, no policy response from authorities to adverse scenario, etc.).

²³ Note that the MDA is *below* the P2G, thus, in theory, a bank not fulfilling its P2G but above the MDA threshold could distribute dividends.

balance sheet but also off-balance sheet items (e.g. credit lines granted but not yet drawn) or credit conversion factor (CCF). The SSM/ECB has quite a detailed set of rules (guides for internal models) in order to approve those models. It also performs inspections (i.e. IMIs or internal model investigations) on how they work. Some observers, as explained in section 2, claim that these internal models are a very important driver of complexity in themselves. However, it seems difficult to ask banks to perform a good risk management of their exposures without these models²⁴.

3.2. Resolution requirements

We are only halfway in the description of the regulatory requirements. Additionally, banks need to fulfill MREL (minimum requirement of own funds and eligible liabilities) requirements, that is, the requirements to be sure a bank has enough capacity to absorb losses when it is failing or likely to fail (FOLTF) and to be internally recapitalized, without using tax-payers money. MREL is the European version of TLAC (total loss absorbing capacity) requirements at international level, although level, composition and details are different and, certainly, much more complex.

There are two MREL ratio requirements, apart from the two other TLAC related requirements for GSIs. As for the TLAC case, one MREL ratio is risk sensitive, the other is not. The MREL requirements are related to the capital requirements previously explained, as they are equal to twice Pillar 1 (P1) plus Pillar 2 (P2) requirement with an additional requirement in the form of a market confidence charge (MCC). That is, $MREL = (P1 + P2R) \times 2 + MCC$. Note that the MCC applies to all banks, no matter whether they will be resolved by open bank bail-in or by a transfer strategy, where normally a buyer will take charge of the ailing bank providing the confidence the market is looking for after a resolution. The MCC equals the sum of the CCoB and all the macroprudential buffers with the exception of the CCyB.

There is a second MREL ratio requirement, not risk-based, based on the leverage ratio. This MREL leverage ratio is calculated as twice the solvency leverage ratio. GSIs need to fulfill the TLAC requirements, both in the risk weighted form and in the leverage form.

²⁴ The change from externally provided risk weights to internal model-based ones was the quantum leap of Basel II. A different matter was the calibration of the capital requirements based on them. Basel III came to correct (upwards) that calibration.

On top of the MREL risk-based requirements, banks need to meet the combined buffer requirement that includes the CCoB as well as all the other macroprudential buffers. At this level there is a M-MDA (MREL maximum distribution amount), applied to the two MREL/TLAC risk weighted ratios which limits the distribution of dividends, AT1 coupons and bonuses, if banks are below the threshold. This is similar to the MDA in solvency ratios with the caveat that the breach is only binding (i.e. asking for resolution authorities explicit actions) after a nine-month observation period, taking also into account market developments (i.e. whether MREL instruments markets are open or not for issuance). Figure 1, right panel, summarizes the resolution requirements.

Additionally to the former requirements, there are specific subordination requirements based on the TLOF, or total liabilities and own funds, (not exactly equal to the total assets, nor to the leverage ratio denominator, nor to the TLAC ratio denominator)²⁵ for so-called Pillar 1 banks, which are banks north of 100 billion euros of total assets (including GSIIIs) or below that amount if chosen (“fished” in regulatory lingo) by national resolution authorities (i.e. included in the list of Pillar 1 banks by specific decision of national resolution authorities to toughen their requirements as they assess them to pose a systemic risk in the event of failure). The TLOF subordination requirement, which is set at 8%, can be increased or lowered depending on SRB’s assessment of progress towards resolvability, based itself on a complex and very detailed methodology that assesses seven dimensions (governance; loss absorption and recapitalization capacity; liquidity and funding in resolution; operational continuity and access to financial market infrastructure (FMI); information systems and data requirements; communication; and separability and restructuring), with their corresponding expectations (see SRB (2020)).

More recently, the SRB has extended the application of the assessment of progress towards resolvability to MCC requirements, in this case, for all the banks under its remit, not only Pillar 1 banks. Therefore, the MCC can be increased or reduced depending on each bank’s resolvability progress. Same happens with the internal MCC (iMCC), which is the MCC subsidiaries of home banks are required to hold in host countries.

²⁵ TLOF is equal to total liabilities (with derivatives reflected not at nominal value but at counterparty risk value or regulatory value) plus regulatory own funds (i.e. equity net of goodwill, other intangible assets and crossed participations). The gap with total assets may be different for each bank, being for many of them around one or two percentage points, with total assets normally higher than TLOF.

Overshadowing the former requirements is the 8% TLOF loss absorption needed in a resolution before having access to the SRF²⁶ (Single Resolution Fund). Formally it is not a requirement, but if not fulfilled, there is no possibility to access the SRF for funding a bank resolution.

MREL requirements can be covered with CET1, AT1 and T2, as the solvency requirements. Additionally, they can be covered by eligible liabilities (EL), which are debt instruments, both subordinated to or *pari passu* with other debt not being part of the MREL. The EL need to fulfill a number of criteria to be counted as MREL (e.g. more than 1 year pending maturity, no legal impediments to absorb losses, etc.) and encompasses senior debt (non-covered and non-preferred), structured notes (a mix of bonds and derivatives) and unsecured liabilities which, depending on the jurisdiction, may be *pari passu* with corporate deposits. When a resolution takes place, the SRB can go beyond MREL instruments (provided that the holders of the instruments are not worse than in liquidation, the so-called NCWO principle) in the bail-in process for loss absorption or recapitalization needs touching derivatives or debt instruments with less than 1 year maturity. Nevertheless, in a resolution the SRB can, at its discretion, exclude debt instruments from bail-in, either included or not in MREL, based on financial stability concerns (i.e. bailing-in derivatives may cause mayhem in other markets, apart from the technical difficulties in doing it). Therefore, debt instruments *pari passu* with corporate deposits are subject to potential discretionary exclusions, without a clear policy so far on the criteria to be used. This constructive ambiguity around discretionary exclusions may cast doubts on investors as resolution approaches and, certainly, enhances the already high complexity of MREL requirements.

All in all, solvency and MREL/TLAC requirements are, admittedly, rather complex, in particular in the European Union/Banking Union. Requirements go beyond what other jurisdictions outside the EU have set up and agreed jointly as a common ground for international banks. That is, other jurisdictions are aligned with Basel/FSB requirements and have, at the same time, far simpler ways of asking capital requirements to their banks.

²⁶ Currently, the SRF has 81 billion euros of funds contributed exclusively by banks. Therefore, this is not public money or tax-payers money but resources set up by the banking industry to help resolve banks without using tax-payers money. This is a big shift in the paradigm of banking crisis management, from public to private money. The SRF can contribute funds up till 5% TLOF if MREL at banks is not enough to absorb losses and recapitalize the bank by itself in a resolution.

Put differently, there seems to be quite some margin in Europe to simplify requirements without deviating from international standards.

4. A list of simplification proposals

This section contains a list of proposals that are holistic (i.e. encompass micro, macroprudential and resolution measures), deliver far simpler requirements without compromising the resilience of the banking sector, enhance transparency and predictability, making capital planning easier for banks while reinforcing investors' discipline, take due account of risk profiles of banks, and, last but not least, are compatible with international standards, both Basel III and FSB requirements.

4.1. Solvency requirements

The proposal is to have a single micro prudential buffer and a single macroprudential buffer, apart from GSII or OSII buffer.

4.1.1. A single micro prudential buffer

We see merit in having a single micro prudential buffer which would encompass CCoB (at 2.5%) and the current P2R and P2G. It would be a single new buffer, not the result of the sum of the three current components computed separately²⁷. Therefore, a new way of determining this buffer would be needed.

To be clear, this offers an avenue for a thorough discussion of which is the role of SREP in setting up capital requirements (i.e. P2R). One of the criticisms of Dahlgren et al (2023) was that SREP was too capital centric. They claim there are issues that hardly can be tackled by higher P2R capital requirements or, to put it differently, the most efficient way is not by way of capital increases. Corporate governance issues (at both Executive Board and Supervisory Board levels), weak internal risk controls, some risk classes (e.g. cyber risk, reputational, etc.) may be more effectively treated by direct qualitative measures than indirectly by capital requirements. In fact, the capital add-on can be perceived as a way to avoid tackling the problems at their root, creating a false sense of security. More

²⁷ *De facto*, the 2.5% of the CCoB would act as a minimum threshold although the actual level would be far higher as it would absorb current P2R and P2G requirements. In any case, CCoB today is *de facto* a fixed requirement given the market impact its breach would entail..

capital does not seem the optimal answer to a weak Board, unsound shareholders or missing effective risk controls.

The thorough discussion of the SREP's role in capital setting may also trigger a further simplification effort in a process that, although it has undergone some review²⁸, it may still have some room for additional streamlining and, thus, allowing supervisors to focus their efforts more on the lingering issues and the emerging risks. After more than ten years of common supervision and a clear view of each bank strengths and weaknesses by each JST (Joint Supervisory Team), the prioritization of tasks and risks in each bank to be monitored should be easier and simpler. Exploring further automatization of the process given the low variability and dispersion of scores shown in section 3.1 (see Figure 2) would free resources to focus on pending issues. This seems a way to increase efficiency and effectiveness of supervision, reducing procedural complexity at the same time, with the corresponding cost savings for both supervisors and banks²⁹.

To be clear, this paper is not proposing getting rid of the SREP process, but it is possible to imagine an SREP that makes more use of automatic scorings, frees resources to concentrate in the pending problems of banks (mainly of qualitative nature) and new risks, to deliver clear (i.e. prioritized) findings to banks asking for prompt remediation of the problems, while capital requirements are set differently, simplifying substantially its determination. This is already the case in other jurisdictions.

Collapsing P2G into a single micro prudential buffer would also allow for a thorough reflection on the role that stress testing needs to play in capital requirements, as well as on how to perform it. Currently, banks carry out their stress test using their own internal models and tools, on a couple of scenarios (baseline and adverse) and being subject to an intensive and complex quality assurance process between the ECB supervisors and each bank. The bottom-up nature of the exercise entails endless discussions with each of the

²⁸ See, for instance, ECB (2025c), section 2.

²⁹ In the US the supervisory review process ends up with a score for each bank and the findings of the process take the form of MRAs (Matters Requiring Attention) and MRIAs (Matters Requiring Immediate Attention) but it is disconnected from capital requirements. Recently, they seem to be refocusing operating procedures towards relevant risks and away from more typical red tape in supervision tasks: "...not become distracted...by devoting excessive attention to processes, procedures, and documentation that do not pose a material risk to a firm's safety and soundness" (Board of Governors of the Federal Reserve System (2025)). The document, in rather plain non-legalistic wording, shows clear ambition to prioritize tasks on material financial risks, avoid duplications, rely more on banks' internal auditors work, communicate clearly with banks, focus on material impacts, not on procedural or documentation shortcomings, etc.

banks on very detailed matters and, to some point, the need to set homogeneous criteria at central level, which may not fit specific bank situations or business models.

A new top-down avenue could be envisaged where the SSM takes advantage of very granular information already existing at banks (and already used regularly to monitor banks) to perform a stress test based on its own models. Eventually, these models could be made public to enhance transparency and scrutiny, benefiting from banks' and other experts' (consultants, academics, etc.) feedback. Empowerment and accountability go hand in hand. Importantly, supervisors would have the control of the stress test exercise, something they should have had since inception.

To be clear, this proposal of having a single micro prudential buffer, based on a top-down stress test while focusing SREP on qualitative measures and separate from setting capital requirements is, roughly speaking, the current US approach, at least for the largest and more complex banks, which are the banks the SSM deals with at European level³⁰. If this far simpler system has worked well for US large banks the last decade or so, why should it not work for European ones? In section 5 we provide some comparative evidence to support our proposal.

It is important to insist on the huge simplification opportunity that collapsing P2R and P2G, as well as CCoB would open in terms of procedures, transparency, predictability and control of the requirements by the supervisor. Resilience does not need to suffer as requirements can be calibrated to the current levels, on average and for most of the banks. Interestingly, the MDA (maximum distributable amount) would be above the new single micro prudential buffer, providing consistency and a bit more stringency in requirements. The required buffer would be made public so that investors would not have to guess anymore the P2G of each bank, increasing certainty, predictability and transparency.

Our proposal would also include the elimination of leverage P2R and leverage P2G. It seems an additional complexity for producing a tiny amount of additional requirements,

³⁰ SSM is in charge of a bit more than 100 banks while in the US the first tier of banks (i.e. large banks with more than 100 billion dollars of total assets and subject to annual stress test by the Federal Reserve) is around 30. National specificities in Europe explain this result as SSM needs to be in charge not only of the largest and more complex banks but, at a minimum, of the 3 largest banks in each country. Given the size of quite a number of countries, this means small banks (i.e. banks with less than 10 billion assets) are also under SSM direct remit together with European GSIBs and other large banks with assets close or above 1 trillion euros each. This makes comparisons between BU banks and US banks more difficult.

while increasing uncertainty in the case of the leverage P2G as it is not published by the supervisor.

Last but not least, it is fair to acknowledge that we do not know the real disciplining impact that a (threat of a) higher level of P2R as a result of the SREP process may have on banks' behavior given its potential signaling effect. It could be that the simple threat of imposing a higher P2R may help convince banks to speed up mending of pending issues (i.e. internal controls, risk data aggregation, governance, etc.). The development in recent years by the SSM of the escalation ladder procedure and the use of pecuniary sanctions may cast some doubts on the moral suasion of P2R increases. In any case, our proposal does not prevent moral suasion being exerted.

4.1.2. A single macroprudential buffer, apart from GSIB/OSII buffers

Letting aside GSIBs and OSIBs buffers, it would be useful to collapse the rest of buffers into a single one, which should be redefined along the lines of the CCyB. We keep the GSIBs buffer to be in line with international requirements. Regarding the OSIBs buffer, if there was a fully functioning Banking Union, with free movement of capital, liquidity and eligible liabilities (EL) across borders in Europe (i.e. from parent to subsidiaries abroad and vice versa)³¹, an EDIS to offer any depositor the same coverage for their deposits no matter which country banks are based; a full trust in the resolution framework and a common banking liquidation procedure all over the Banking Union; the OSIBs buffer would not be needed anymore. In the meantime, even if it is difficult to justify for some small banks, politically it is not possible to get rid of it. Level playing field also plays a role here as the Banking Union only has 7 GSIBs while the difference in size of these banks with other domestic ones is small in large European countries. On the contrary, in the US the gap between the eight GSIBs (and in particular the largest six) and the rest of large banks is far larger.

As an aside, completing the Banking Union would be the most important step towards resilience for banks in Europe, reducing uncertainty of depositors in different jurisdictions

³¹ This is a highly contentious issue in Europe between so-called home and host countries, that is, the countries where large cross border European banks are headquartered and the countries where those banks operate through subsidiaries that may control a significant market share. It shows, indirectly, not only mistrust in parent banks (and their national authorities) but also on the SSM and SRB not being able to protect those subsidiaries when deteriorating or in resolution. The solution is relatively simple by enshrining in regulation the power to SSM and SRB of mandating capital, liquidity and eligible liabilities transfers from the parent to the subsidiary in case the latter starts to weaken.

inside the Banking Union. This means setting up the third pillar, EDIS, that could be run by the SRB, to avoid further complexities in European architecture. Once SRF and EDIS are under the same roof and with CMDI (crisis management and deposit insurance) directive transposed, resolution and crisis management possibilities would increase further at European level. If setting up EDIS requires a discussion of the regulatory treatment of sovereign debt, BCBS (2017) is a good starting point for that discussion.

During the last years, macroprudential authorities have set up a number of buffers for a number of specific reasons under the SyRB umbrella in Europe (see Figure 4, panel B). None of these requirements is covered by any international agreement (i.e. SyRB is a European requirement, gold-plating Basel III). In some cases, one can argue that some SyRB were an imperfect way of raising capital where cyclical conditions might justify it but triggers for activating the CCyB were not within reach. Sometimes it seems as if a SyRB was set to ring fence the national banking sectors with additional capital requirements, in particular where the bill to be footed fell mainly or exclusively upon subsidiaries of foreign banks, erecting artificial walls inside the Banking Union to the frustration of cross border banks, home and European authorities.

At the same time, in many countries, there was a willingness to activate the CCyB but the indicators to trigger it were simply not there. Credit to GDP gaps after significant busts in credit cycle in a number of countries meant that activation triggers were far away and difficult to reach in a number of years. That prompted the development of new concepts such as the positive neutral (PN) level of the CCyB, so that macroprudential authorities could raise capital requirements (many times a tiny 1% in a number of years). In some jurisdictions, this positive neutral requirement was set based on arrays of indicators far away from pure credit cycle indicators, encompassing matters as diverse as housing market developments, external imbalances, GDP departure from structural positions, etc., thus, making difficult for stakeholders, and banks in particular, to forecast the future evolution of their capital requirements given the complexity of the reasons behind their activation.

As a result of all the former developments, a deep confusion of objectives, tools, triggers, indicators, methodologies and frameworks has appeared, with banks facing a panoply of requirements, very complex, difficult to understand and, more importantly, denting the confidence of banks and investors in the whole macroprudential framework. It is probably less a matter of the level of the requirements and more on how they are set.

Our proposal is to eliminate/subsume the SyRB (as well as the sSyRB) into the CCyB, opening the possibility to redefine the latter, so that it is fit for purpose, without having to stretch methodologies to activate it (i.e. PN). CCyB activation/release could be made a function of a few cyclical indicators, correlated with banks' profits. As in the case of the micro prudential buffer, there is no need to have higher or lower requirements than the current ones. In any case, a new and simple way of calibrating the CCyB should be developed.

Moreover, we are not convinced of the need of article 124 and 164 while article 458 should be left only as a nuclear option (i.e. last resource tool if all the other measures have failed to rein in the lending cycle).

If international standards were to be revised at some point, it might be useful to think about the role of CCoB as a potential positive neutral or current level of CCyB (also to block those resources at banks) over which a CCyB could be established. That would increase the potential of the total CCyB to 5% in the upswing and, if made fully releasable (i.e. allowing for the depletion of the CCoB as well), in the downswing. For the first time the banking sector would have a credible and powerful countercyclical/macprudential tool, able to inject capital into the real economy when it is more needed and penalizing lending when it is more damaging. All in all, by subsuming the current CCoB into a new CCyB (with a range from 0% to 5% capital requirement) it would be possible to manage the transition without depleting the current level of capital, thus, protecting current resilience, while at the same time arming banks and the real economy for the new recession that unavoidably will come at some point in time³².

As an aside, Banco de España developed a countercyclical or macroprudential tool long time ago, the so-called dynamic provisions, that, precisely, increased bank resources (preventing large dividend distributions) in good times (i.e. when credit risk was below its average of the cycle) and released automatically the provision to cover losses in bad times (as NPLs started to rise above average levels). It was a fully transparent mechanism,

³² This proposal is in line with Woods (2022) and Borio et al (2025), framed in international standards, if they were to change.

simple and effective. Unfortunately, authorities decided to abolish it in 2016, once the banking profitability in Spanish banks was resuming again³³.

4.1.3. Simplification versus quality of capital

Some authors argued that a way to simplify the capital stack would be to exclude AT1 and/or T2 instruments from capital requirements³⁴. Both instruments could be left in the hands of resolution authorities, to be used to recapitalize failed banks. It is argued that in doing so the T1 ratio and the total capital ratio could be eliminated, with the corresponding MDA triggers. That would leave capital requirements based on only two ratios, CET1 and leverage ratio.

The proposal immediately raises the issue of what will replace AT1 and T2 in Pillar 1 capital requirements. If Basel III international compromise needs to be respected, the vacuum needs to be filled. Maybe with CET1? This would make European capital requirements more stringent, as a result of a process to simplify the stacking, which is somewhat puzzling and difficult to explain to banks and investors.

If only AT1 was to be replaced, maybe with a linear combination of CET1 and T2, that would only eliminate one capital ratio out of the four existing ones (and one of the 4 MDAs consequently). A linear combination of CET1 and T2 seems a difficult road to simplify current requirements, in particular as debate over the “exchange rate” would pop up immediately³⁵. How would it be set? Moreover, T2 is more a pure loss absorption element in gone concern, weakening the overall market discipline over banks as AT1, hit before T2, would have disappeared.

Moreover, in this proposal the CET1 would be excluded from resolution (i.e. not counted to fulfil resolution requirements), departing from what currently counts as TLAC and, thus, from FSB international compromise. Importantly, the exclusion of CET1 to cover resolution requirements would send the wrong message (and incentives) to banks, weakening their resilience: as excess CET1 cannot be used to cover resolution requirements in this proposal, why then to hold those surpluses? We will show below

³³ For a description of the dynamic provision mechanism and political economy around it, see Saurina and Trucharte (2017). For an assessment of its usefulness as a macroprudential tool, see Jiménez et al (2017). For understanding its rationale, see Jiménez and Saurina (2006).

³⁴ See Nagel (2025) or Borio et al (2025).

³⁵ It is fair to recognize that this would not be completely new. Australian authorities got rid of AT1 by replacing them with a combination of CET1 and T2. The particular context in which this replacement happened may not be replicable elsewhere.

there are simpler and more ambitious ways of simplifying resolution requirements without setting wrong incentives for banks.

It may be possible that an impact assessment at European level would show that quite a number of banks would have significant shortfalls if AT1 and T2 were to be replaced by CET1. A recalibration would be needed, as an increase in capital quality at this stage would be difficult to square with current market and supervisors' perception that the level of capital at European banks is about right. It would also clash with the competitiveness debate. Moreover, in resolution, banks with difficult access to markets and high current levels of CET1 would struggle to fill the new requirements of the proposal. It is difficult to envisage how to explain to the many banks that have devoted years of efforts to clean up their balance sheets and shore up capital and MREL to fulfill current requirements that, in the name of simplification, now they need to restart the process, and the excess CET1 they have, cannot be used anymore for that purpose.

Deferring the calibration to future discussions is a way not to tackle the problem of increase in quality of capital. The calibration issue will come back to haunt us, opening Pandora's box, which is neither in the interest of European banks nor of the authorities.

The debate about AT1 may be in fact the result of the lack of trust in the instrument to absorb losses in going concern³⁶. But eliminating them may not be the most effective and efficient way of sorting out the problem. A simpler and better way seems to be the revision of AT1 contractual clauses to enhance its usability in going concern (see Perotti (2026)). For instance, an increase in its trigger clause (i.e. making it more likely that AT1 will be used to recapitalize a bank in going concern), or a revision of other contract features, as instruments are renewed, seems a simpler and promising avenue.

Two final reflections with a view to simplifying and increase transparency of capital requirements. First, it would be worth discussing whether we need an MDA on the leverage ratio. The MDAs we currently have on the capital ratios based on risk-weighted assets should be enough, in particular given our adherence to the output floor of Basel III, which limits leverage growth. We could simplify the framework without loss in resilience by getting rid of the MDA in the leverage ratio. Admittedly, this would be only a small step.

³⁶ Credit Suisse demise has again raised the doubts on the usefulness of these instruments in going concern.

Second, and more important in Europe, it would be worth discussing references to the management buffer in the guidance we provide to banks. Level 1 legislation is clear on which are the requirements supervisors can impose on banks. By way of using our level 3 guides (e.g. on ICAAP, other risks difficult to pin down, etc.) to go beyond the minimum requirements might impact transparency and predictability, making capital planning by banks and its monitoring by investors a challenge each year. Buffer expectations should not be forbidden, as they can be a useful tool for supervisors dealing with a few problematic banks, but, if needed, they should be transparent to banks and investors.

4.1.4. Liquidity requirements

The Great Financial Crisis (GFC) showed the importance of capital at banks. Therefore, a deep revision of capital requirements was undertaken, replacing the lenient Basel II framework by a much stringent Basel III. Liquidity was also perceived as a crucial element at banks. Therefore, liquidity requirements were harmonized for the first time, and two liquidity ratios were set up. The LCR (liquidity coverage ratio) to assure there is a minimum coverage of short-term liabilities by high quality liquid assets. In parallel, a NSFR (net stable funding ratio) was also established, to be sure that long term assets match long-term liabilities.

It is not the aim of this paper to discuss the usefulness of both ratios, that some challenge³⁷. Nevertheless, it is worth mentioning that liquidity is difficult to measure or to trap via requirements. Liquidity basically depends on trust. All banks have a significant wholesale market funding, being it from other banks, bond markets or large customers, all of them well used to following daily developments, including market prices, and able to assess weaknesses quite fast and, thus, move funds out of the bank quite rapidly. No matter which is the level of the liquidity ratios, if trust is lost in the bank, liquidity may evaporate very quickly. The stickier deposits a bank has, the more protected may be of a liquidity run, but stickiness is also a property that may change suddenly. Liquidity ratios are useful, in particular those focused on short maturities (LCR) but nothing replaces trust from wholesale markets³⁸.

³⁷ See, for instance, Cecchetti and Kashyap (2016) on the fact that LCR and NSFR complementariness may mean that only one of the two is binding, thus, the other is redundant.

³⁸ Trust is so important that it can even nullify a large capital ratio. The liquidity drain experienced in Q4 2022 by Credit Suisse is a case in point. Sudden and totally unexpected hits at a bank (reputational risk, political risk, sanctions, etc.) may trigger an immediate lack of trust that evolves into a run, no matter which is the level of capital or liquidity ratios of the bank.

4.2. Resolution requirements

Proposals to eliminate AT1 and T2 from solvency requirements, conserving all room of maneuver on CET1 for solvency supervisors while allowing resolution authorities to use AT1, T2, senior non-preferred (i.e. subordinated debt) and, maybe, senior preferred debt as well, to cover resolution requirements are the two faces of the same coin. It has already been explained in the previous section why this is rather orthogonal to simplification efforts. Not allowing excess CET1 for resolution purposes forces banks to tap markets to close their (newly created on the name of simplification) gaps on MREL, while allows banks with enough debt (AT1, T2, preferred and non-preferred) to reduce CET1 to what solvency supervisors ask for, reducing the resilience in the system and, probably unintendedly, misallocate resources to deal with a failing bank. There are better alternatives to simplify resolution requirements.

4.2.1. A single 8% TLOF requirement, fully subordinated

This is a proposal for a drastic simplification of resolution requirements, without a loss of resilience. In a sense it is as brave as Woods (2022) proposal for a single capital buffer or even as Admati and Hellwig (2013) for a single leverage ratio for capital requirements, although calibrated at a more reasonable level (matching actual levels of MREL for most banks).

The proposal replaces all the current requirements, based on RWA or on leverage measures. It also eliminates the M-MDA, with no need for the combined buffer requirement on top of MREL requirements which makes very difficult using them for macroprudential reasons entangling together solvency and resolution requirements with no benefit for each objective. Moreover, the proposal aligns MREL requirements with the current (implicit) requirement to access the SRF (losses up to 8% of TLOF). Last but not least, it would simplify the resolution instruments (i.e. exclude senior non-preferred debt) and inject realism and certitude on which are the debt instruments that can/will be used in a resolution event³⁹.

It can be argued that using only a requirement based on TLOF, which roughly equates to total assets (see footnote 25), would mean no risk sensitiveness for resolution

³⁹ Nothing would prevent compensate banking executives with all these subordinated instruments as well as with equity, aligning their incentives not only with shareholders but also with creditors in a far better way than currently, to deal with the agency cost of debt at banks (see Becht et al (2026)).

requirements. This is true but why is there a need for risk sensitiveness when solvency requirements are risk sensitive already? Currently there is a double counting of risk sensitivity that might be explained, among other reasons, because solvency and resolution requirements were developed at international level sequentially by two different bodies (BCBS and FSB). Resolution authorities, certainly in Europe, can fully trust SSM/ECB for assuring risk sensitivity to capital requirements. Intuitively, resolution is about having a pot of money large enough for each bank, if need be, to absorb losses and attract a buyer so that the ailing bank keeps providing critical services. The 8% TLOF fully subordinated proposal does exactly that in the simplest way possible, leaving supervisors entrusted to require capital to cover risks at banks. Here, separation of going and gone concern is not achieved by excluding CET1 from resolution but by simplifying to the maximum what is required to banks. Moreover, in the current framework an upward or downward revision of RWA by the supervisor (i.e. as a result of an internal model investigation or IMI of a bank) immediately has an impact on MREL requirements, entangling together solvency and resolution requirements. This is excluded in our proposal achieving a truly disentanglement of both requirements without loss of CET1 for resolution usage.

Note that transparency and predictability is fully assured with the 8%TLOF fully subordinated requirement. No additional expectations are included. No uncertainty on how RWA would be computed. No assessment by authorities on whether enough/not enough progress towards resolvability has been achieved, an issue that is rather subjective by definition and difficult to pin down in a simple, transparent methodology/process. It would apply to all banks deemed for resolution, independently of their size or “fishing” status. By the way, in this proposal the SRB would still retain the substantive impediments procedure in case banks stop making progress towards resolvability or undo their resolvability road.

Transparency and predictability are enhanced even more as instruments to fulfill the requirement would be only subordinated ones (i.e. CET1, AT1, T2 and subordinated debt/senior non-preferred debt). This goes beyond banks and impacts investors as well. Currently, many (senior non-subordinated or senior preferred debt) eligible liabilities are counted as MREL but are candidates to be excluded from bail-in (i.e. excluded from absorbing losses) in case of resolution. Resolution needs to happen in one go during a

(long) weekend⁴⁰ in the best-case scenario. Eligible liabilities (EL) may be *pari passu* with corporate (non-covered) deposits, may include optionality features or may be plain derivatives. Complexity (i.e. the possibility to value and bail in them in a very short period of time) and the risks inherent to bailing in them are obvious to seasoned experts and authorities alike, which increases the arguments to exclude them from bail-in in a resolution. Then, why ask banks to hold these instruments that with a high likelihood will not be used in a resolution?

On the contrary, subordinated instruments can be used more easily. They are not *pari passu* with any kind of deposit or even senior debt/instrument. They are meant for absorbing losses in a resolution and, thus, priced accordingly. All the incentives and signals are well aligned.

Last but not least, our proposal would fully align the resolution requirements with what is needed to access the SRF, (without being a formal requirement to banks today). That is, today for a bank earmarked for resolution it is perfectly possible to fulfill all MREL requirements (risk weighted and non-risk weighted) without reaching the 8% TLOF, that is, without ensuring access to SRF funding. A simple 8%TLOF requirement would make fully visible the possibility to ensure additional funds for resolution via SRF. At the same time, it would make clear to everybody that SRF funds are there to be used to protect financial stability, as they are not taxpayers' money but resources contributed by the banks.

In terms of stringency of requirements, taking into account current average MREL levels, with a risk density (i.e. RWA over total assets) of 33% (50%), the 8% TLOF would mean around 24% (16%) MREL in RWA terms, with the significant difference that there would be no need to issue senior debt, thus, no need for European banks to incur in a deadweight loss, as argued above given the fact that it is highly likely that some debt might be excluded from bail-in, for good reasons. For those banks for whom the new requirement will be binding, probably not many, that currently fulfil their MREL requirements, a reasonable transition period should be given to them to reach the new target, if they need

⁴⁰ Long because the SRB can apply a moratorium of up to two days during resolution, precisely to find the best solution to the ailing bank. Sometimes two days are not enough to organize a competitive process to transfer the bank as bidders need time to assess the books of the failed bank in order to value it properly. Sometimes, on the contrary resolution authorities do not have the luxury of that much time as the failure happens in a week day (e.g. Banco Popular Español in 2017 failed on a Tuesday and was resolved by the Wednesday morning).

it. For a few banks the new requirement may be lower than the current one but, importantly, the right comparison is with the current fully subordinated amount. Overall, the increase in the quality and usability of the MREL more than compensates in most cases, if not all, the slight decline in the total amount required.

It can be argued that the 8% TLOF requirement fully subordinated would not be the only requirement for certain banks. Currently, the seven GSIBs or GSIs would still need to fulfill the TLAC requirement. However, fulfilling the 8% TLOF requirement would be probably enough to align with TLAC two requirements. First of all, for a bank with density around 33%, an 8% TLOF requirement means a 24% resolution risk-based requirement roughly speaking, which is well above the 18% current TLAC requirement⁴¹. 8% is higher than twice the leverage ratio (at 3%) plus half of the GSIB surcharge given its level for current European GSIBs. Therefore, with RWA densities around one third, which are quite common among European GSIBs (see Tables of next section), an 8% TLOF requirement assures compliance with TLAC requirements as well⁴².

To be fully sure, as numerator and denominator could be different for TLAC and TLOF, in order to ensure fulfillment of international compromises, a maximum of either TLAC or 8% TLOF requirement could be set for GSIBs, with no additional complexity being added to the existing framework.

In a nutshell, it is possible to simplify resolution requirements drastically, without weakening resolvability capabilities or financial stability. In practice, at the end of the day, resolution is about having enough (private) resources to absorb losses and to attract a buyer that will keep open the bank the day after the resolution, to finalize its restructuring steadily, not in a hurry⁴³. This is what our 8% TLOF proposal achieves in an extremely simple manner.

As an aside, it is clear from a practical point of view that the best way to resolve an ailing bank in the Banking Union is by using a transfer tool (sale of business or sale of assets and liabilities). Open bank bail-in is a rather theoretical approach fraught with problems (i.e. implementation of quite a number of changes in a very short period of time with

⁴¹ A density of 40% would be roughly equivalent to 20% RWA resolution requirements while a density of 45% would mean a requirement slightly below 18%.

⁴² In fact, with a better quality (full subordination) as no allowance for senior debt would be allowed.

⁴³ Hill (2025) explains how FDIC has learnt the lessons of Silicon Valley banks demises in 2023 and is working in better operationalizing transfer strategies (sale of the bank or, temporary bridge bank, to sell it later on).

limited resources) and a serious confidence challenge when reopening the bank on Monday morning⁴⁴. The process is probably too technical and complex to be understood by the public (and depositors) in a moment of serious financial stability concerns, which increases the uncertainty of its success. On the contrary, a sale of the ailing bank to another (well known by the public and stronger) bank provides immediate confidence to the public. The acquiring bank has the expertise and the resources to plug in the ailing bank into its systems, bridging the gap and, importantly, pumping liquidity to fill immediately any needs that may appear, contributing to calm stakeholders and, thus, reducing drastically liquidity drain after resolution. What if no bank is interested in buying the ailing bank? Then the bridge bank is available as a last resort/minute solution, to buy time to restructure the bank and try to sell it later. Therefore, the optimal resolution tool in the current European setting is a sale of business, supported, if needed, with the SRF funds, either for liquidity or additional recapitalization and complemented, if needed, by an asset protection scheme (APS) to ring fence uncertainty about potential or real losses for the acquirer, difficult to value in a short period of time when portfolios are very complex or clearly underwater. Of course, the sale of business solution requires enough resources at the bank to absorb losses and to attract the buyer. Our proposal provides them in a very simple and transparent way.

4.2.2. TLAC requirement for all resolution banks, as a second best

Another simplification alternative in Europe could be to have only two resolution requirements based on TLAC but, logically, applied to all banks earmarked for resolution. It would be the extension of the TLAC regime to all the banks in the resolution remit, similar to what happens in Europe for solvency requirements. The scope for simplification would be large as well, as MREL as such would disappear, together with MREL ratios (both the one based on RWA and the one on the leverage measure). Note that MCC complexities, including iMCC, would fade away as well. Last but not least, M-MDA would disappear as well.

Nevertheless, contrary to our proposal, there would still be two resolution ratios (risk weighted and non-risk weighted), senior debt would be counted as resolution resources and, potentially, banks may not have enough loss absorption capacity to access SRF (i.e.

⁴⁴ Angouleas and Goodhart (2015) raise a number of very valid questions and concerns around open bank bail-in. Many of these concerns do not apply (i.e. are answered) by using a transfer tool in resolution (sale of business or sale of assets and liabilities) instead of the open bank bail-in.

less than 8% TLOF). This is why extending the TLAC requirement to all banks to replace MREL current requirements would be only a second best versus the 8% TLOF fully subordinated proposal.

As in the former section, a maximum amount of TLAC or 8% TLOF could be envisaged if deemed necessary. In that case, it is highly likely that the 8% TLOF requirement would be the binding one in most cases (higher numerical requirement than the leverage ratio and higher than the RWA requirement for quite a range of RWA densities).

Last but not least, ECB (2025a) has floated the idea of a TLAC+ regime, where TLAC would be a minimum sort of Pillar 1 requirement and above it there would be a Pillar 2 additional requirement based on progress towards resolvability. Needless to say, this approach does not seem to reduce complexity. Instead, all the complexity would be concentrated on how to set up this Pillar 2 requirement (new methodology, policies, guidelines, etc. would start to appear).

A relatively small impact simplification measure requiring no legal change (i.e. no need to change level 1 or level 2 legislation) but only the alignment of SRB and SSM, would be to set the MCC to zero, based on the more than ten years that have passed since the set up of resolution requirements and the process undergone by both banks and authorities in enhancing and fostering resolvability. It is a proposal also in line with international standards as MCC is a pure European element (i.e. gold-plating FSB requirements). Last but not least, note that a market confidence charge is puzzling in a sale of business resolution strategy, where the confidence will be provided by the acquiring bank, as crisis cases managed successfully by the SRB show (e.g. Banco Popular Español, Sberbank Europe subsidiaries in Croatia and Slovenia). As argued before, most of resolutions, if not all, will be made using this procedure or will likely fail.

4.3. Summary

It is possible to advance significantly in the simplification of the capital stack in a holistic manner without denting the existing resilience achieved by European banks while being far more efficient and effective in our supervision and resolution tasks. We have just laid down a few (ambitious) proposals to shape the discussion in a genuine manner, without dodging the bullet on competitiveness and without taking strange turns that take simplification only as an excuse to achieve other objectives.

In comparison with ECB (2025a), our proposal of a single macroprudential buffer is fully in line with recommendation 1, while our single micro prudential buffer is more ambitious and simpler as it merges P2R and P2G. We are aligned with alternative 1 of recommendation 2 (i.e. keep AT1 as part of capital requirements improving its usefulness in going concern). We appreciate the willingness to discuss the possibility to run a top-down stress test for setting capital requirements, although they lack again our ambition. Recommendation 4 on reciprocation would be far easier to achieve if SyRB was eliminated as we propose (i.e. subsumed into CCyB). Regarding recommendation 5 on resolution requirements, the extension of TLAC to all resolution banks is our second best. We have already cautioned above on additional elements on top of the TLAC, as they may prevent the simplification of the framework. Importantly, note that our 8% TLOF fully satisfies all the additional elements in recommendation 5: we reduce the number of elements and stacks in the MREL framework, remaining compliant for the seven GSIBs with international standards. We maintain on average current resolution resources improving their quality and ensuring access to additional funds for resolution (i.e. SRF), which TLAC proposal may not achieve. Finally, we eliminate distribution restrictions in MREL and we limit undue interactions between going and gone concern frameworks. Therefore, our proposal delivers the bulk of recommendation 5, being simpler and more ambitious again.

5. Resilience versus simplicity. Some empirical evidence

The proposals made in the former section to simplify the solvency framework are already being applied in some jurisdictions, notably the US. This country, for internationally active banks, has one micro prudential buffer, with a minimum of 2.5% (fulfilling the CCoB buffer), which is determined for each bank as a result of a very granular top-down stress test run by the authorities with their own models. On top, they have one macroprudential buffer made of the CCyB, which has not been activated so far, and the GSIBs buffer. They also have a thorough supervisory review of banks, with scores, findings and remediation plans asked to banks (i.e. similar to SREP by ECB) but with no direct impact on capital requirements (i.e. there is no P2R or P2G in the US). Therefore, our simplification proposal, except for resolution where US banks apply the TLAC

international standard, is already being applied in the US⁴⁵. The empirical question is then: does a simpler supervisory requirements framework deliver better or worse results in terms of solvency levels and financial stability in general?

Comparisons between US banks and Banking Union (BU) banks are not easy. Scope is different, categories are different, US is a single country while BU encompasses 21 countries each one with some large local banks for their countries but not for the whole BU. The easiest way to compare them is to focus on GSIBs on both sides of the Atlantic. Table 2 (columns 1, 2, 3) shows the main figures for end-2025. For the US, the comparison is either with the eight US GSIBs or with the six US GSIBs (excluding Bank of New York Mellon and State Street to avoid any distortion because of their specific business models specialized on custody and depository services). Results do not change when we consider either the eight or the six. In relative terms, US GSIBs are far more profitable than European ones, either using ROE (more than 3 pp higher) or ROA (more than double). In terms of the level of capital over risk weighted assets, CET1 ratio is higher for European GSIBs (close to 2 pp) and 3 pp for total capital. In terms of leverage ratio, the US GSIBs' ratio is more than 1 pp higher. The difference in RWA density is also remarkable, with density 20 pp lower in European GSIBs. But the most striking differences are in absolute numbers. On aggregate, the six US GSIBs' total assets are very close to the seven BU GSIBs' total assets, while they have 60% more CET1. In terms of CET1 over total assets, EU GSIBs are at 4% while US GSIBs are around 6%.

It seems that a far simpler solvency framework produces much higher loss absorption capacity in absolute terms (CET1) for a similar volume of total assets. In relative terms, leverage ratio confirms the former observation while in RWA terms, capital ratios are more favorable to EU banks, with far lower densities. For GSIBs at least, all the additional layers of requirements in Europe (SyRB, sSyRB, or even CCyB buffer, plus the split of P2R and P2G), that increase complexity significantly are only able to deliver 60% of the equity US GSIBs hold, according to S&P Capital IQ database.

Markets have a clear view as well. Price-to-book ratios of US GSIBs have consistently outperformed BU ones for the last two decades, including crisis years and very recent years (see Figure 5)⁴⁶. BU banks have shown values below 1 most of the last 20 years,

⁴⁵ TLAC is applied by the eight GSIB's only. Nevertheless, large US banks have higher leverage requirements than European banks (see, for instance, EBA (2024)).

⁴⁶ Very similar figure with simple averages.

while for US banks that has been very rare. Thus, markets do not seem to appreciate the extra levels of requirements and cushions at European GSIBs. As shown below, price-to-book ratios depend on many factors, GDP growth, interest rate levels, market structure, etc., all impacting current and future profitability but, certainly, they have sent a clear and consistent message along time. All in all, it seems that it is possible to deliver the same levels of resilience (probably more) for GSIBs with a far simpler framework.

It could be argued that the comparison between GSIBs is not enough to assess what each framework is able to deliver. The ECB has direct responsibility over 109 so-called significant institutions (SIs), representing around 85% of the total assets of the BU banks. The size of the SIs varies significantly (from a few billion euros total assets to more than two trillion euros in some cases) as SSM needs to take care of banks in small countries as well as in large ones.

In the US, going beyond GSIBs, and including large banks in the analysis, that is, all banks with more than 100 billion euros of total assets subject to annual stress testing by the Federal Reserve, and excluding subsidiaries of foreign banks (8), we end up with 23 banks with total assets a bit less than 20 trillion euros, covering a bit more than 50% of total banking assets in the US⁴⁷. Narrowing down BU banks into those with total assets of more than 100 billion euros, and excluding subsidiaries of foreign banks (5), we end up with 39 banks with total assets around 25 trillion euros, covering a bit more than 75% of total banking assets in the BU.

Table 2, columns 4 and 5) show that BU large banks have a higher CET1 ratio (2.5 pp), lower LR (1.5 pp) and ROE and ROA lower than US large banks. When comparing absolute values, it is striking to see again that total equity level is about the same among US large banks than Banking Union ones, with 30% less total assets. Again, a simpler framework delivers more equity in absolute terms with less assets on balance sheet. Interestingly, the density (RWA over total assets) is 53% for US banks and 31% for European ones while CET1 over total assets ratio is 6.6% versus 4.7%, respectively.

If we exclude GSIBs from banks larger than 100 billion euros, the same patterns remain (Table 2, columns 6 and 7), in particular the differences in absolute values of total assets and CET1, although smaller in size. Banking Union banks (33) almost triple total assets

⁴⁷ Therefore, we focus on large banks subject to capital requirements based on a very granular top-down stress test run by the Federal Reserve every year.

of the 15 American banks, while CET1 in absolute terms is less than double. CET1 ratio and total capital ratio are more than 2 pp and almost 3 pp and 4 pp higher for European banks respectively, while the leverage ratio is 2 pp lower. ROA, and in particular ROE, is closer but still higher for US banks. Densities are now more than double for American banks (34% vs 71%) while CET1 over total assets are 5.5% in European banks versus 8.5% in US banks.

Similar results, although slightly more favorable to European banks, are in Table 3, with simple averages. Figure 6 reinforces former results for a broader sample of large banks.

All in all, comparisons across the Atlantic are not easy. Banks have different business models, market shares, etc. but a pattern seems to emerge: the CET1 ratio (i.e. risk weighted ratio) is higher at European banks while the opposite is true for the leverage ratios (i.e. unweighted ratio). Overall, the level of equity in absolute terms is much higher in US banks, certainly more than proportionally to the total assets of the banks compared, although the proportion improves for European banks as they decrease in size⁴⁸.

Banks, in particular the larger ones, sometimes argue that solvency requirements have a negative impact on their market value and, thus, on the possibility to raise fresh capital to lend more to the real economy. They also argue that dividend restrictions have an additional negative impact on their valuations. Table 4 shows a simple regression of the price to book ratio⁴⁹ on their potential determinants. We cover a relatively large number of countries (European Union ones, UK, Switzerland, US, Canada, Japan and Australia), a long period of time (2005-2025) and more than one hundred quoted banks. Apart from not supporting former banks' claims, there are quite a number of robust and interesting results.

First of all, macroeconomic and banking market variables matter. Banks operating in countries growing more, with higher (long term) interest rates, and in more concentrated and larger banking markets show higher price to book ratios. Short term interest rates do not seem to have a significant impact on price to book ratios. GDP growth is a proxy of

⁴⁸ Dzeulskis et al (2026) focus on the level of requirements of CET1, running a counterfactual exercise by applying the US framework to Banking Union banks. On average, the *requirements* that European banks would hypothetically face under current US rules would be somewhat higher than those to which they are subject in the EU. This is particularly the case for European GSIBs. We focus on the *existing* level of CET1.

⁴⁹ Salas and Saurina (2003) shows the importance of franchise value (i.e. Tobin's q, sometimes proxied by price to book ratio) to protect bank solvency. That is, banks with higher market power are more (self) interested in reducing risk taking and, thus, increase solvency.

banking business growth, while a higher level of interest rates seems to allow banks to extract some rents from the loan and, probably more, from the deposit market (see more below). That is, when interest rates are high, banks may keep a significant part of retail deposits at close to zero rates while increasing interest rates on loans, while if interest rates are lower, this effect vanishes. Concentration in banking market (market share of the five largest banks) allows for some market power while the size of the market, proxied by population of the country, allows for economies of scale and efficiency on IT, marketing, and other costs. This is particularly important for European banks where a market (still) fragmented in 21 countries does not allow to maximize efficiency. Shareholders seem to penalize that fragmentation⁵⁰, despite the fact that for more than 10 years there has been a centralized supervisor.

The price to book of each bank also depends on individual bank variables such as risk taking: the more credit risk or NPLs ratio, the lower the price to book, with similar results for the density ratio (RWA over total assets) but weaker; the more efficiency (i.e. lower cost to income ratio), the higher the price to book; and, in general, a higher ROA is positively correlated with price to book, as expected.

Column 4, 5, 6 and 7 show that higher capital levels or higher pay-out ratios do not seem to impact price to book ratios. That is, asking banks to hold more capital or limiting their dividends payments do not seem to hamper their market value against bankers' claims. It is the economic environment in which banks operate and the actions banks themselves take in terms of efficiency and risk management the real driver of value. A higher ratio of deposits over total assets (i.e. more retail banking) seems to be a source of market value marginally significant, while that is not the case for loans, where more competition may be present from banks and other financial intermediaries. In any case, evidence is a bit weak to extract firm conclusions.

Table 4 regression results are very robust as the main explanatory variables keep sign and significance along all the columns. Different breakdowns of data per jurisdiction do not change the results in a significant way. Similarly, different combinations of fixed effects do not change substantially the results (see Table 5).

Altogether, these results support a narrative where market value is not the result of regulatory developments but, mainly, the result of economic and individual bank

⁵⁰ Elderson (2026) notes that market fragmentation is banks' real constraint.

determinants. The low price to book of Banking Union banks versus US banks (Figure 5 and 6) spanning two decades is the result of US economy growing faster than the European one, with higher interest rates on average and with a far less fragmented market than in the Banking Union, together with differences in efficiency, risk taking and profitability along time (i.e. NPL ratios of US banks were lower than European banks, and ROA higher for most of the period analyzed).

6. Conclusions

We have argued that the current solvency and resolution requirement frameworks for banks are highly complex in Europe. Much of this complexity can be explained by the fact that several regulatory layers are added on top of the agreed set of international standards. One layer is the split between P2R and P2G, each one the result of complex procedures, which blur transparency for banks, investors and the public in general. A panoply of macroprudential tools is added, country by country, to the CCyB and GSIBs buffer making again difficult to predict the path of capital needs of banks. Last but not least, resolution requirements, so-called MREL, are all but simple.

We claim that a far simpler requirement framework is possible, in both solvency and resolution requirements. Moreover, our proposal is fully aligned with current BCBS and FSB requirements, either literally or in terms of expected outcome.

We propose a one single micro prudential buffer, to be set by a top-down granular stress test run by the authorities, where P2R, P2G and CCoB would be subsumed. The supervisory process (SREP) would be disentangled from capital setting, so that it would focus on qualitative requirements and remediation plans from banks. On top there would be a one single macroprudential buffer made of a more powerful CCyB, as it would subsume SyRB and sSyRB (systemic and sectoral systemic risk buffers). Other macroprudential tools would disappear (i.e. changes of RWA for commercial and residential real estate, changes in minimum LGD for internal models...) except the buffer for systemic institutions, in line with current international standards. Resolution requirements (i.e. MREL) would all be replaced by a single requirement: 8% TLOF fully subordinated, that would allow BU GSIBs to fulfill TLAC requirements as well. Moreover, it would align requirements with SRF access, adding additional resources, if needed, for the resolution to be a success.

The proposal in the paper is not a completely new one. In fact, there are jurisdictions that already apply it, in particular for solvency requirements. This is the case, notably, of the US for large banks. We perform a simple comparative analysis to show that the US framework has delivered a similar level of capital ratios (lower when RWA are considered and higher when total assets are considered) and a far higher volume of absolute capital, in particular for GSIBs, with a much simpler framework. Markets do not seem to appreciate the far more layers of requirements among European banks; rather they seem to focus on current and future profitability, larger in the US market than in the European one. GDP growth and interest rates, market structure and the size of banks' market, together with risk taking and efficiency seem to be more important determinants of the market value of banks than the level of capital requirements or dividend policies. A complex maze of requirements intertwined with each other, at the end, deliver a similar (or even lower) level of resilience than simpler frameworks with less tools and procedures to get the final amount of capital requirement.

Simplification of the stacking is just a dimension of the whole simplification of regulation that is needed, in particular in Europe. Escrivá (2025) contains a broader reflection of what is needed. Supervisory procedures need to be streamlined further, to focus on what really matters, and being less capital-centric. Requirements on banks need to be set by existing regulation (i.e. legal requirements), and not by expectations or best practices that leave banks and investors guessing. Proportionality needs to be further applied, as non-systemic banks are treated many times like systemic ones, despite current provisions in regulation. This again has to do mainly with (national) supervisory procedures applied to these banks. Detailed secondary regulations and guidelines (so-called level 2 and 3 regulations in Europe) should be streamlined and stripped of many cumbersome and very low value-added elements, sometimes even going beyond level 1 primary legislation. Last but not least, reporting requirements need to be revised thoroughly. Quite a number of times, national requirements are added to international ones without real value added. Real usage of requirements needs to be double checked, to ask for what is needed, not what is nice to have and (almost) nobody looks at. Less but higher quality reporting would be more useful than a plethora of templates, badly populated and barely used.

The paper does not dig either on the international and, in particular, European regulation, supervision and financial stability architecture. Streamlining and better coordination among all the agencies, Boards, authorities, etc. would be useful.

In this paper, we have presented a proposal to simplify solvency and resolution requirements, in particular in Europe, where complexity is at the highest level. Importantly, all the former pales with the transformative power of completing the Banking Union in Europe and, in particular, setting up an EDIS (European Deposit Insurance System).

A final word of caution from the empirical analysis in the paper. Given the significant gap between CET1 in US and Banking Union banks in absolute terms, larger as the size and systemic importance of banks increases, and much more marked than differences in total assets, any simplification effort in Europe, and there are plenty of opportunities, needs to be mindful of this reality, so that financial stability is not hampered.

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Table 1. Estimated costs of compliance of European Union banks.

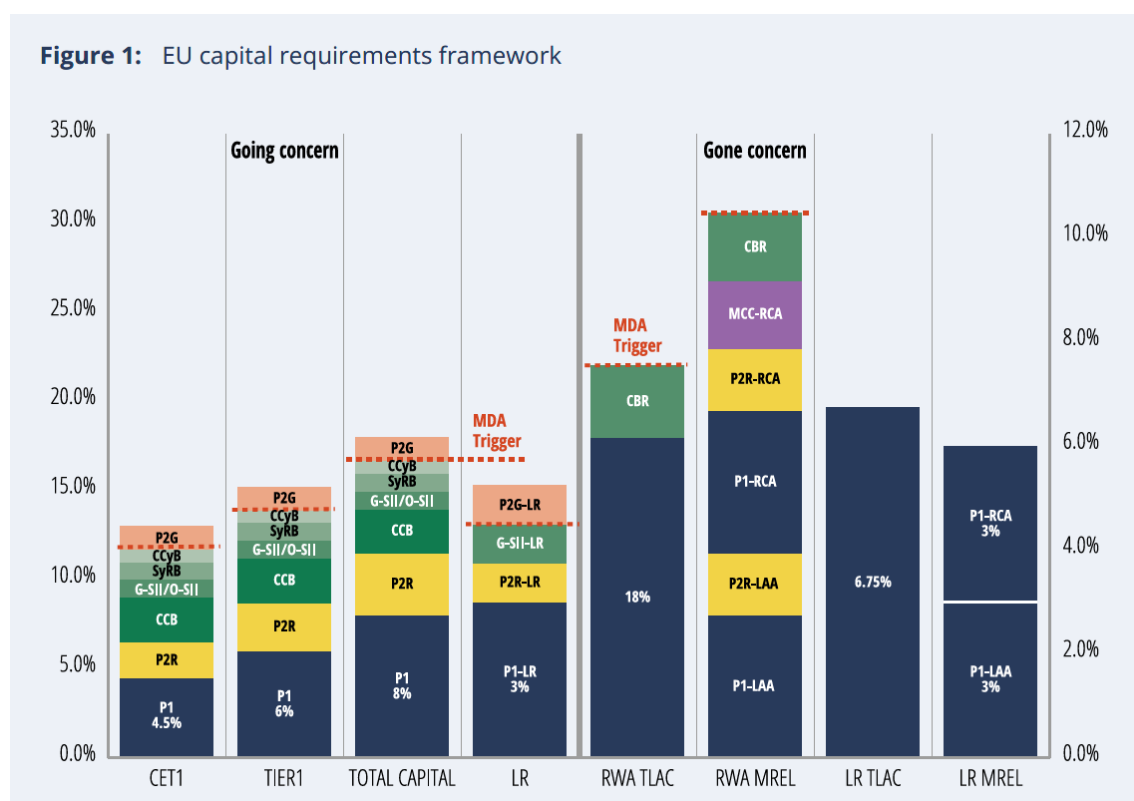
Figure 50: Estimates of annual total compliance costs for the entire EEA banking population

	Number of banks	Estimate based on median values obtained from the survey		Estimate based on average values obtained from the survey	
		Total (EUR billion)	Per institution (EUR)	Total (EUR billion)	Per institution (EUR)
SNCI	2,857	7.0	2,443,353	14.8	5,167,577
Medium	1,444	4.1	2,845,183	31.9	22,098,027
Large	386	13.1	33,958,136	19.6	50,807,833
All institutions	4,687	24.2	5,162,565	66.3	14,142,339

Note: The estimates are calculated using the extrapolation of ratios of costs reported for the years 2018-2020 from a sample of 251 institutions to 4687 institutions (both at individual and consolidated level).

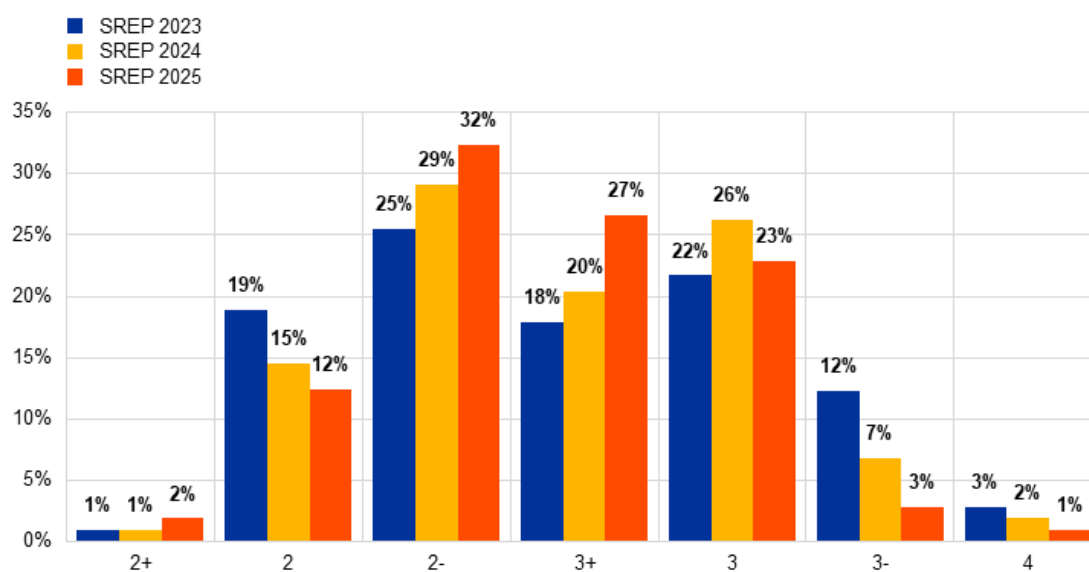
Source: EBA (2021).

Figure 1. Solvency and resolution requirements.



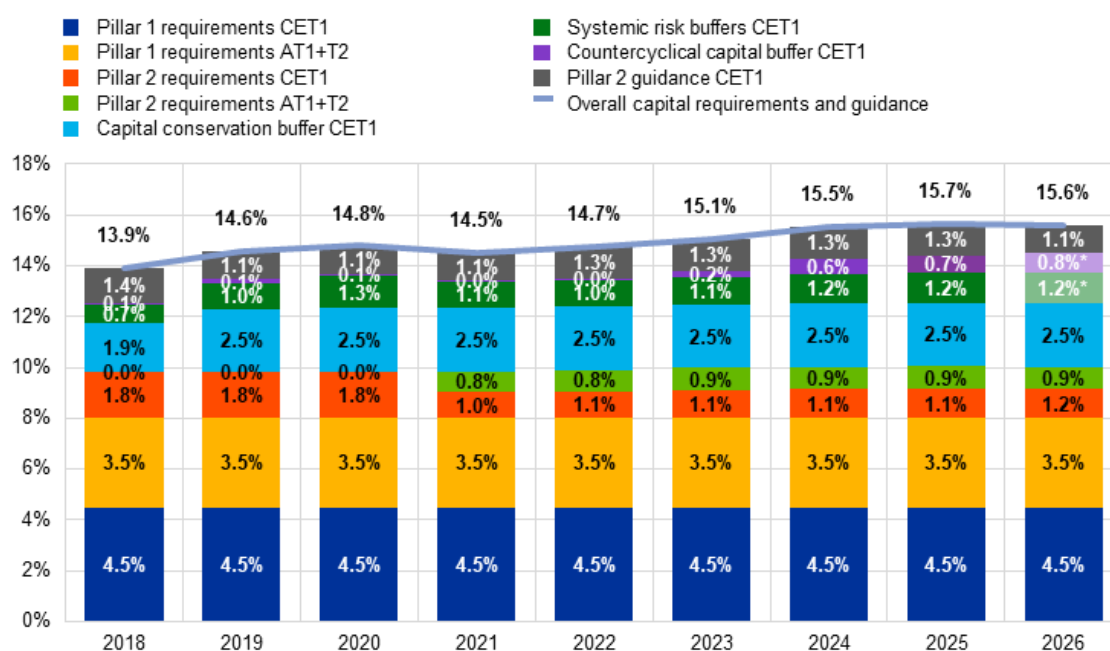
Source: EBA. *Stacking orders and capital buffers. Reflections on management buffer practices in the EU-15 July 2024.*

Figure 2. Distribution of SREP scores, last 3 years.



Source: ECB (2025c). Aggregate results of the SREP 2025

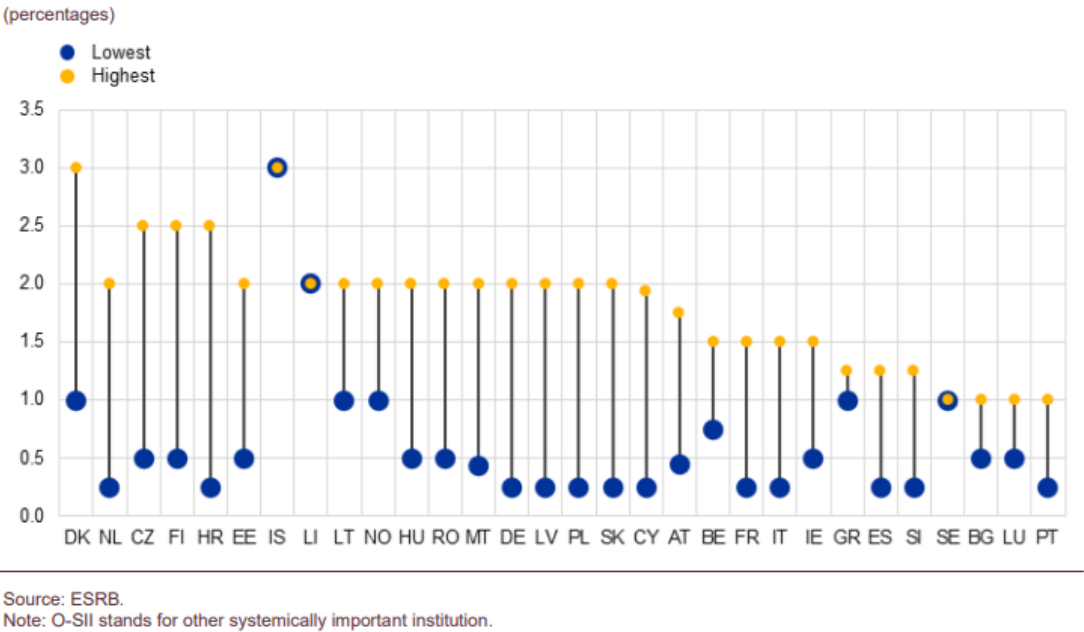
Figure 3. Capital requirements for Significant Institutions under SSM remit.



Source: ECB (2025c). Aggregate results of the SREP 2025

Figure 4. Panel A.

Highest and lowest O-SII buffer rates by country as at March 2025



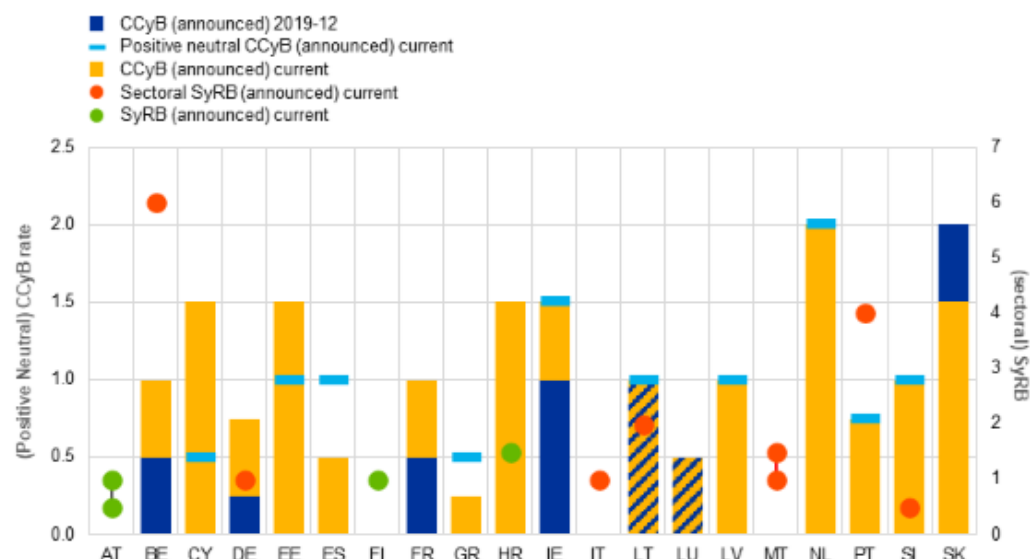
Source: European Systemic Risk Board (ESRB) Annual Report 2024. July 2025.

Figure 4. Panel B. Macroprudential measures per country.

Macroprudential measures have resulted in a significant increase in macroprudential space since the COVID-19 pandemic

Announced releasable capital buffer rates (CCyB and SyRB) in the euro area

(percentages)



Sources: ECB and national notifications.

Notes: Figures refer to July 2025, unless otherwise stated. The blue bars represent the CCyB rates that had either been announced or were in place in the fourth quarter of 2019. The yellow bars represent the CCyB rates either announced or already in place as of May 2025. In LU and LT, the CCyB rate has not changed from the fourth quarter of 2019 to March 2025, hence the striped bars. The light blue dashes represent the target positive neutral CCyB rate (either announced or already in place) for the countries that have adopted such an approach to setting the CCyB. The green dots represent the SyRB rates, either announced or implemented, as of March 2025. In AT, the range of SyRB rates applying to different institutions is shown. The red dots represent the sectoral SyRB rates, either announced or implemented, as of March 2025. In IT and MT, the range of sectoral SyRB rates applying to different institutions is shown.

Source: ECB Macroprudential Bulletin, No 31, August 2025.

Figure 4. Panel C.

Almost all banking union countries currently have BBMs in place.

Overview of Implemented and announced BBMs across banking union countries

(limits defined under national frameworks)

		All types of borrower First Time Buyer (FTB) Second and Subsequent Buyer (SSB)																					
BBMs		AT	BE	BG	CY	DE	EE	ES	FI	FR	GR	HR	IE	IT	LT	LU	LV	MT	NL	PT	SI	SK	
LTV	FTB	90%					85%		95%		90%	90%	90%		85%	90%	90%	90%	100%	90%	80%	80%	
	SSB	90%							90%		80%	90%	90%			70%			75%		70%		
LTV exemption	FTB	35%					15%				10%	20%	15%				15%	10%	10%			20%	
	SSB	20%											15%					20%					
DSTI/LSTI	FTB	40%					50%		60%	35%	50%	45%			40%		40%						
	SSB	50%							40%								30%						
DSTI/LSTI exemption	FTB	20%					15%		15%	20%	10%	20%			5%		10%			10%	3%	5%	
	SSB	5%																		5%			
DTI/LTI	FTB	9 y											4 y				6 y					3-8 y	
	SSB												3.5 y										
DTI/LTI exemption	FTB	5%											15%				10%					5%	
	SSB												15%										
Maturity	FTB	35 y		30 y		30 y		30 y	25 y	30 y					30 y		30 y	40 y	30 y	40 y		30 y	
	SSB																25 y						
Maturity exemption	FTB	20%		5%		15%		10%		20%						10%				15%		10%	
	SSB																						

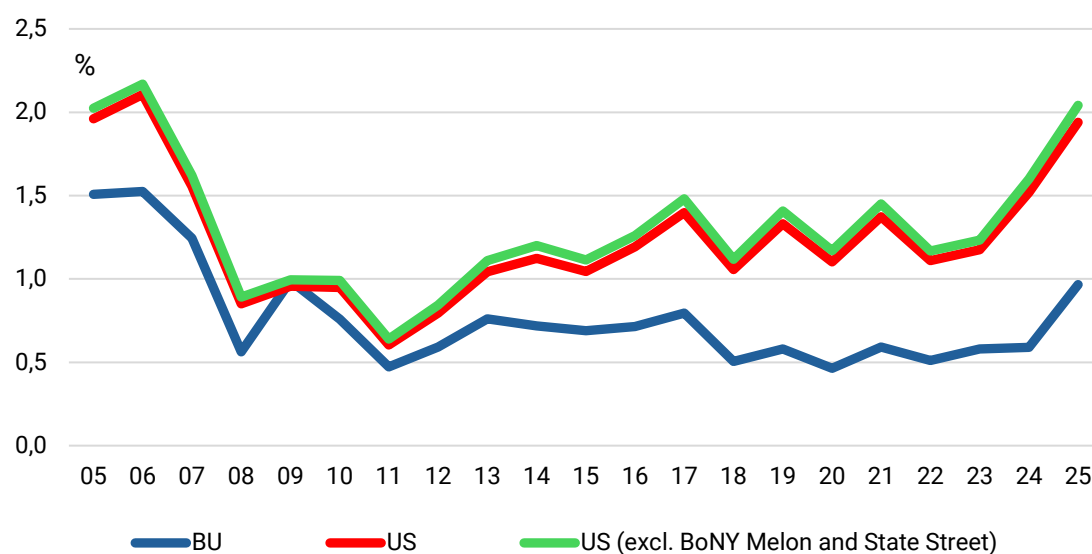
Sources: ECB and notifications by national authorities.

Notes: Only housing loans are considered. Austria: loan-to-collateral (LTC) limits are considered instead of LTV.

Belgium: LTV exemption rates refer to first-time buyers (FTB) and second and subsequent buyers (SSB). DSTI and DTI measures are computed as follows: $DSTI > 50\% \times LTV > 90\%$ (+5% exemption) and $DTI > 9 \times LTV > 90\%$ (+5% exemption). Bulgaria: the 5% exemption applies to all three limits (LTV, DSTI and maturity) simultaneously. Ireland: the LTV and loan-to-income (LTI) exemption rates refer to FTB/SSB and buy-to-let (BTL) loans. The LTV limit for BTL loans is 70%, with an exemption of up to 10%. Finland: the LTC limit is considered instead of LTV. Croatia: the table includes announced measures that will be implemented as of 1 July 2025. Luxembourg: LTV for other residential real estate loans, including BTL loans, is 80%, with no exemption. Latvia: LTV limit for BTL loans is 70%. Malta: a distinction is made between category I and category II borrowers for the LTV exemption. An exemption rate of 10% applies to category I borrowers and a 20% exemption rate applies to category II borrowers. Portugal: for the DSTI exemption, 10% of loans can be granted to borrowers with a DSTI of up to 60%, while 5% of total loans can be granted to borrowers with a DSTI above 60%. Slovakia: for the LTV exemption, the LTV ratio may be up to 90% for up to 20% of new loans. Slovenia: up to 15% of consumer loans may have a maturity of up to 120 months if compliant with the DSTI cap.

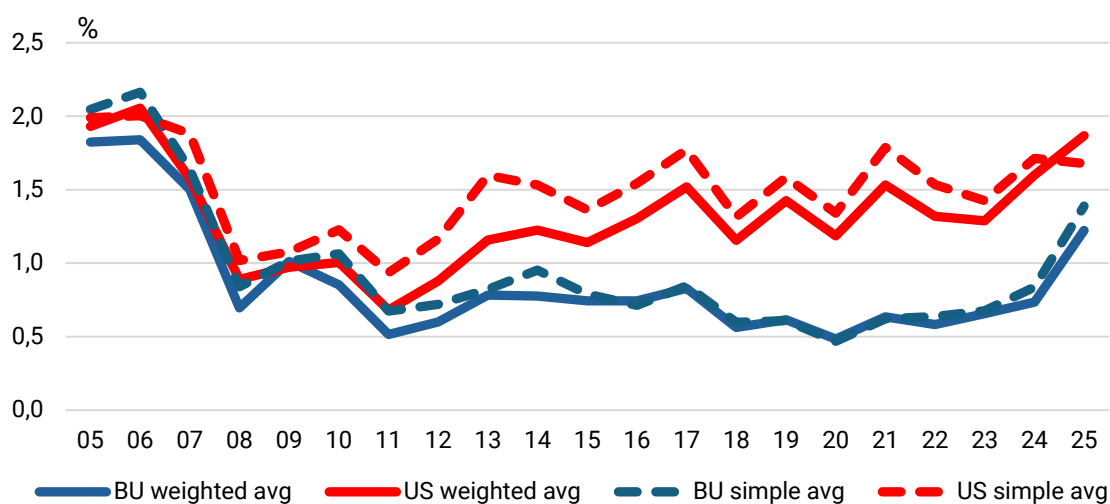
Source: ECB Macroprudential Bulletin, No 29, June 2025.

Figure 5. Price to book ratio. Banking Union and US GSIBs.



Source: S&P's Capital IQ. Weighted average using total assets.

Figure 6. Price to book ratio. Banking Union and US banks larger than 100 billion Euro of total assets. Weighted and simple average.



Source: S&P's Capital IQ. Weighted average using total assets. Sample of banks is the same as in Table 4.

Table 2. Banking Union banks vs US banks. Weighted average. December 2025.

Weighted average	US GSIB (excl. BoNY Melon and State Street)			EU >100bn US >100bn		EU >100bn excl. GSIB	US >100bn excl. GSIB
	EU GSIB	US GSIB					
Number of banks	7	8	6	40	23	33	15
ROA	0.48%	1.02%	1.01%	0.64%	1.06%	0.80%	1.22%
ROE	9.07%	12.36%	12.38%	10.08%	12.16%	11.13%	11.50%
CET1 ratio	14.50%	12.73%	12.78%	15.47%	12.83%	16.46%	13.17%
Total capital ratio	18.77%	15.92%	15.93%	19.68%	16.06%	20.62%	16.55%
LR	4.85%	5.72%	5.68%	5.67%	6.21%	6.52%	8.54%
CET1/TA	4.00%	6.03%	6.12%	4.73%	6.60%	5.48%	8.48%
RWA/TA	27.76%	47.96%	48.57%	30.62%	53.34%	33.58%	70.98%
Total CET1	520.8	858.2	827.7	1,211.3	1,226.4	690.5	368.2
Total assets	13,024.3	14,232.3	13,518.2	25,633.7	18,575.0	12,609.4	4,342.7

Source: S&P's Capital IQ. **Note:** Data is end-year 2025. Absolute numbers are in billion Euro. Exchange rate of 31 December 2025. Weighted average using total assets. Absolute numbers in billion euros.

Table 3. Banking Union banks vs US banks. Simple average. December 2025.

Simple average	US GSIB (excl. BoNY Melon and State Street)			EU >100bn US >100bn		EU >100bn excl. GSIB	US >100bn excl. GSIB
	EU GSIB	US GSIB					
Number of banks	7	8	6	40	23	33	15
ROA	0.50%	1.02%	1.01%	0.81%	1.17%	0.88%	1.25%
ROE	9.36%	12.23%	12.36%	10.88%	11.94%	11.21%	11.78%
CET1 ratio	14.37%	12.60%	12.88%	16.29%	12.50%	16.69%	12.45%
Total capital ratio	18.77%	16.12%	16.24%	20.26%	15.91%	20.58%	15.80%
LR	4.80%	5.87%	5.63%	6.47%	7.12%	6.82%	8.55%
CET1/TA	4.01%	5.61%	6.06%	5.75%	7.39%	6.12%	8.34%
RWA/TA	28.05%	44.93%	47.85%	35.16%	62.73%	36.66%	72.22%
Total CET1	520.8	858.2	827.7	1,211.3	1,226.4	690.5	368.2
Total assets	13,024.3	14,232.3	13,518.2	25,633.7	18,575.0	12,609.4	4,342.7

Source: S&P's Capital IQ. **Note:** Data is end-year 2025. Absolute numbers are in billion Euro. Exchange rate of 31 December 2025. Absolute numbers in billion euros.

Table 4. Price to book determinants.

VARIABLES	(1) price_book	(2) price_book	(3) price_book	(4) price_book	(5) price_book	(6) price_book	(7) price_book
GDP_growth	0.017*** (0.005)	0.013** (0.005)	0.013** (0.005)	0.012** (0.005)	0.010* (0.006)	0.009 (0.006)	0.010* (0.006)
Interest Rate 90 days	0.029 (0.026)	-0.008 (0.020)	-0.012 (0.019)	-0.015 (0.018)	-0.017 (0.019)	-0.019 (0.019)	-0.017 (0.019)
Interest Rate 10 years	0.026 (0.026)	0.026** (0.012)	0.022* (0.012)	0.020* (0.011)	0.029** (0.014)	0.032** (0.014)	0.025* (0.013)
Bank concentration	0.013*** (0.004)	0.014*** (0.005)	0.013** (0.005)	0.013** (0.005)	0.014*** (0.005)	0.015*** (0.005)	0.014** (0.005)
ln_population	1.592** (0.777)	2.235*** (0.834)	2.086** (0.883)	2.053** (0.892)	1.927** (0.881)	1.706* (0.958)	2.032** (0.867)
npl_ratio		-0.013*** (0.003)	-0.013*** (0.003)	-0.012*** (0.003)	-0.010*** (0.003)	-0.010*** (0.003)	-0.011*** (0.003)
rwa_assets_ratio		-0.003 (0.002)	-0.002 (0.003)	-0.003 (0.003)	-0.007** (0.003)	-0.006* (0.003)	-0.007** (0.003)
cost_income		-0.006*** (0.002)	-0.006*** (0.002)	-0.006*** (0.002)	-0.007*** (0.002)	-0.006*** (0.002)	-0.007*** (0.002)
roa		0.064** (0.031)	0.065** (0.031)	0.068** (0.029)	0.064** (0.028)	0.066** (0.028)	0.062** (0.028)
ln_assets			0.093 (0.105)	0.071 (0.097)	0.079 (0.089)	0.074 (0.092)	0.073 (0.091)
tier1_ratio				-0.012 (0.013)	-0.016 (0.013)		
payout_ratio				0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
loans_cust_assets_ratio					0.005 (0.004)	0.004 (0.003)	0.005 (0.004)
dep_cust_assets_ratio					0.009* (0.005)	0.008 (0.005)	0.009* (0.005)
cet1_ratio						-0.020 (0.014)	
totcap_ratio							-0.017* (0.010)
Constant	-28.354** (14.019)	-39.325** (15.103)	-38.431** (15.468)	-37.221** (15.766)	-35.759** (15.457)	-31.635* (16.885)	-37.416** (15.230)
Observations	1,967	1,664	1,664	1,662	1,648	1,581	1,650
R-squared	0.795	0.806	0.807	0.808	0.813	0.818	0.813
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number countries	24	24	24	24	24	24	24
year min	2005	2005	2005	2005	2005	2005	2005
year max	2025	2025	2025	2025	2025	2025	2025

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parenthesis.

Data sources: S&P's Capital IQ for banks' variables and Federal Reserve Bank of Saint Louis for macro variables.

Table 5. Price to book determinants. Robustness checks of Column 5 of Table 4.
Different sets of fixed effects are considered in each specification.

VARIABLES	(1) price_book	(2) price_book	(3) price_book	(4) price_book	(5) price_book	(6) price_book
GDP_growth	0.010* (0.006)	0.010 (0.008)	0.022*** (0.004)	0.019 (0.014)	0.012** (0.005)	0.020*** (0.007)
Interest Rate 90 days	-0.017 (0.019)	-0.023 (0.024)	0.042** (0.017)	0.026 (0.043)	0.009 (0.019)	0.006 (0.025)
Interest Rate 10 years	0.029** (0.014)	0.098*** (0.029)	0.021 (0.016)	0.142*** (0.041)	0.110*** (0.038)	0.126*** (0.043)
Bank concentration	0.014*** (0.005)	0.018*** (0.006)	0.006 (0.004)	0.011*** (0.004)	0.004 (0.004)	0.005 (0.003)
ln_population	1.927** (0.881)	2.416** (0.964)	-0.188 (0.773)	0.157** (0.071)	-3.941** (1.750)	0.102 (0.076)
npl_ratio	-0.010*** (0.003)	-0.022*** (0.006)	-0.009** (0.004)	-0.030*** (0.005)	-0.017** (0.007)	-0.031*** (0.006)
rwa_assets_ratio	-0.007** (0.003)	-0.008* (0.005)	-0.003 (0.004)	-0.007* (0.004)	-0.003 (0.004)	-0.006 (0.004)
cost_income	-0.007*** (0.002)	-0.010*** (0.003)	-0.008*** (0.002)	-0.006** (0.003)	-0.009** (0.003)	-0.006** (0.003)
roa	0.064** (0.028)	0.147*** (0.040)	0.131*** (0.034)	0.206*** (0.048)	0.240*** (0.051)	0.268*** (0.054)
ln_assets	0.079 (0.089)	-0.065 (0.045)	-0.258** (0.113)	-0.049 (0.044)	-0.148*** (0.044)	-0.138** (0.064)
tier1_ratio	-0.016 (0.013)	0.061 (0.044)	-0.049*** (0.015)	0.060 (0.041)	0.018 (0.044)	0.001 (0.036)
payout_ratio	0.000 (0.000)	0.000 (0.000)	0.001 (0.000)	0.001* (0.001)	0.001 (0.001)	0.002** (0.001)
loans_cust_assets_ratio	0.005 (0.004)	-0.007 (0.004)	0.006* (0.003)	-0.004 (0.003)	-0.010** (0.005)	-0.006** (0.003)
dep_cust_assets_ratio	0.009* (0.005)	0.014* (0.008)	-0.005 (0.004)	0.012** (0.005)	0.006 (0.008)	-0.000 (0.003)
Constant	-35.759** (15.457)	-42.647** (17.588)	10.170 (12.557)	-2.476 (1.699)	74.508** (30.690)	2.136** (1.073)
Observations	1,648	1,648	1,648	1,648	1,648	1,648
R-squared	0.813	0.555	0.716	0.484	0.397	0.295
Country FE	--	Yes	--	No	Yes	No
Year FE	Yes	Yes	No	Yes	No	No
Bank FE	Yes	No	Yes	No	No	No
Number countries	24	24	24	24	24	24
year min	2005	2005	2005	2005	2005	2005
year max	2025	2025	2025	2025	2025	2025

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parenthesis.

Data sources: S&P's Capital IQ for banks' variables and Federal Reserve Bank of Saint Louis for macro variables.