EXECUTIVE SUMMARY

The sharp recent deterioration of the EU's geopolitical environment has highlighted the vital role of EU competitiveness in ensuing prosperity and survival. Given its critical importance to the EU economy, the EU financial sector is an important piece of the broader EU competitiveness debate. Since the EU financial sector is dominated by banks, a holistic look at banking sector policy in the context of EU competitiveness is in order. This study complements other more descriptive approaches (e.g. Beck et al, 2025; Heider et al, 2025) by focusing on the public policy perspective.

Section 1 discusses and clarifies the meaning of the competitiveness imperative in this context and emphasises that policymakers should aim at an optimal contribution of the banking sector to EU competitiveness across all sectors, rather than a narrow-minded consideration of the competitive position of European banks. This requires a resilient and efficient banking sector. The section separately provides a highly stylised description of the various components of banking sector policy.

Section 2 provides what we view as an indispensable historical backdrop by highlighting the legacy of the decade-long financial and euro area crisis (2007-2017) in the current differences between EU banks and their international peers, particularly in the US. In Europe, the crisis was largely caused and prolonged by banking nationalism, defined by the propensity of EU member states to protect and promote their national banking champions. Along the way, as Section 2 documents, the significance of EU banks in the global financial system was dramatically reduced. The crisis thus reaffirmed the longstanding truth that, while bankers always call for lower capital requirements, these are not in the sector's collective interest. Instead, banking sector resilience, including appropriately robust capital requirements, is critical to the competitiveness of the EU economy.

The comparison between the respective current banking policy frameworks in the EU and the US, developed in Section 3, yields nuanced insights. In terms of the prudential policies that stand at the centre of the competitiveness debate, EU banks may be viewed as subject to similar or slightly higher risk-weighted capital requirements than their US peers, whereas non-risk-weighted requirements (the leverage ratio) are unambiguously weaker in the EU than in the US. Beyond the observed level, capital and other loss-absorption requirements are very complex in the EU and particularly in the euro area, primarily because of the awkward coexistence of national and European decision-makers beyond the SSM, not least in the macro-prudential area. In recent years, the EU banking sector has shown greater resilience than its US counterpart, suggesting that the ostensibly better short-term financial performance of US banks should not be equated with soundness.

The current situation is highly dynamic given the Trump administration's stated deregulatory intent, which also implies risks against which the EU should build appropriate defences. Section 4 summarises that changing risk environment and concludes with recommendations that could be addressed in the forthcoming report that the European Commission has pledged to publish in 2026 on the EU banking sector. The most important recommendation is to complete the banking union, with an integrated crisis response framework and appropriate regulatory treatment of sovereign exposures. The next recommendation is focused on the aim of streamlining the policy framework to ensure higher efficiency of capital allocation by EU banks: macro-prudential decision-making should be integrated at the banking union area level, and the framework for capital and loss-absorbency requirements (the so-called capital stack) should be simplified without leading to an overall decrease of capital and loss-absorbency levels. We also make recommendations on other less impactful but still significant policy areas such as national rulemaking, accounting, consumer protection, and SSM supervisory practice.

1. EU COMPETITIVENESS AND BANKING SECTOR POLICIES

1.1. Policy context

In 2024, competitiveness has emerged as a major concern in EU policy debates, ahead of the European Parliament election in June and in its aftermath. The Draghi Report on the future of European competitiveness, published in September 2024, has crystallised both a fear of the EU failing to fulfil its economic potential, and an ambition to avoid that fate (Draghi, 2024). Competitiveness has been a prominent byword of the second von der Leyen Commission so far, enshrined in the Mission Letters sent in September to Commissioners-designate including that for financial services policy. Among numerous stated objectives, the latter document mentions the aim of *"ensuring the competitiveness of the financial sector"* (von der Leyen, 2024).

The European banking industry has used competitiveness as a longstanding catchphrase for its policy advocacy (e.g. European Financial Services Round Table, 2022). The Draghi report echoed the industry's discourse in stating that 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*" (Draghi 2024, page 65). In late September 2024 and again in February 2025, so did the finance ministries of France, Germany and Italy, in non-public communications to the European Commission reported by media.[1] In the September 2024 instance, a leaked letter from the Treasury heads of the three countries to the European Commission referred to the importance of putting *"stronger emphasis on the competitiveness of the financial sector, particularly banking, and its capacity to finance the economy"* and to the *"need to ensure a level playing field vis-à-vis other major jurisdictions within the micro-prudential framework, both in terms of timing of implementation and in terms of substance and operational burden"*.[2]

Individual political leaders have relayed similar points in public expressions.[3] On 19 March 2025, the European Commission has announced that a major report on the situation of the EU banking sector, initially scheduled for 2028 in the Capital Requirements Regulation adopted in 2024, would be brought forward and published in 2026.[4]

1.2. Defining competitiveness

As the above quotes illustrate, the competitiveness debate tends to conflate two concerns that are far from analytically identical or even necessarily convergent.

On the one hand, the competitiveness of the EU economy – for which the main driver is productivity growth – is affected by the structure, safety and soundness of the EU financial sector, in which banks collectively play a dominant role. A major theme for EU competitiveness thus understood is the build-

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1 See https://www.politico.eu/article/france-germany-italy-push-bank-deregulation/ and https://www.politico.eu/article/we-need-mario-draghi-report-for-banking-say-eu-three-biggest-countries-france-germany-italy/.

2 The leaked letter is available at https://www.politico.eu/wp-content/uploads/2024/10/03/Letter-to-DG-Berrigan_241002_152826.clean_.pdf.

3 For example, French President Emmanuel Macron in a November 2024 event that also featured Mario Draghi: *"If we want to be competitive with the Americans, we have to synchronize two things: we have to try to push back regulations that are moving too fast in some areas and we have to try to get back on the same scale (...) If they decide and confirm that they will not apply prudential rules to their operators, we need to give ourselves a little time, a little flexibility, so that we can reinvest in our own capital."* Reference https://www.bloomberg.com/news/articles/2024-11-13/macron-calls-on-eu-to-delay-basel-banking-rules-if-us-does-too?sref=ATN0rNv3.

4 European Commission, COM(2025) 124 final. Savings and Investments Union A Strategy to Foster Citizens' Wealth and Economic Competitiveness in the EU https://finance.ec.europa.eu/document/download/13085856-09c8-4040-918e-890a1ed7dbf2_en?filename=250319-communication-savings-investmlents-union_en.pdf

up of the single market, both in general the market for all goods and services, and in particular the EU market for financial services (e.g. Pinkus et al, 2024).

On the other hand, the competitiveness of individual EU banks is defined by their success in competing with other banks. By extension, the competitiveness of EU banks is often understood as their collective ability to compete with non-EU banks, as a group even though EU banks also compete against each other. This view of banking sector competitiveness has gained salience in the 2010s, as EU banks as a group have lost considerable market share, as documented below, particularly in the investment banking segment (Goodhart and Schoenmaker, 2016).

How much the collective market share of EU banks should matter to policymakers is far from a straightforward matter, however. In terms of employment or value added, the banking sector represents only a small (though not negligible) share of the EU economy, so it can by no means be viewed as a proxy for the economy as a whole. Furthermore, the EU policy framework does not generally condone favouring one sector against others, unless in exceptional cases of specific public interest.[5] Where the banking sector, and beyond it the broader financial sector, are special is that the entire economy depends on the availability of credit and more generally of external funding (in a way not unsimilar to the structural role of the energy sector); non-EU banks contribute to credit availability via their EU operations, even though that contribution may be affected by stress in their home base or geopolitical frictions.

Also, the financial sector is prone to bouts of instability and systemic risk that can be durably harmful to economic performance: its resilience thus contributes to economic competitiveness. Conversely and based on repeated historical experience, a short-term focus on the banks' competitive position that ignores resilience considerations is bound to lead to financial instability in the medium term, and thus to be harmful both to EU competitiveness writ large and to the banking sector's own long-term interests.[6]

In sum, the collective market share of EU banks is not of straightforward public interest. It only matters to the extent it affects the sector's resilience and the availability of credit and financing to the EU economy. These are inherently complex issues, on which academic research only sheds a partial and inconclusive light.

1.3. Banking sector policies

This study looks at the competitiveness challenge through the prism of banking sector policy. The category brings together different sets of policies, which this subsection attempts to clarify. We distinguish prudential from other policies while highlighting the interdependencies between them.

Policies are briefly described here from a global and historical perspective. Their specific implementation in the EU is further addressed later in the study, in sections 2 and 3.

1.3.1. Prudential policies

"Prudential" here refers to policies intended to ensure resilience and mitigate systemic risk by (1) ensuring that each bank is safe and sound, (2) minimising the fragility of the banking sector as a whole (mainly but not only by ensuring safety and soundness of the individual banks that are part of it), and

[5] This has been the case, for example, for European commercial aircraft manufacturing given the vital role of air travel and the highly concentrated global market.

[6] This is why giving public banking supervisors an explicit mandate to support the sector's competitiveness is a generally ill-advised idea, not further discussed in the rest of this study.

(3) providing for the orderly exit of any banks that have become unviable. These three aspects are respectively referred to in banking policy parlance as micro-prudential, macro-prudential, and resolution frameworks. An altogether older concept is that of bank oversight or supervision, namely that the existence of systemic risk justifies the permanent monitoring of banks by a specialised public authority which is empowered to impose course corrections if needed.[7] In the US, the word "regulation" is often used loosely to encompass both prudential rulemaking and supervision, whereas EU semantics make a more specific distinction between regulation (understood as rulemaking) and supervision.

At the international level, the Basel Committee on Banking Supervision, established in 1974 and often referred to simply as the Basel Committee, has emerged as a major standard-setter for both micro-prudential and macro-prudential policies, including its current package of standards known as Basel III issued in stages between 2010 and 2017. (The two previous such packages were Basel I, first issued in 1988 with later amendments, and Basel II, first issued in 2004.) For resolution frameworks, the international reference is a document known as the key attributes, first issued by the Financial Stability Board (FSB) in 2011.[8]

Basel III includes standards on banks' capital and on their liquidity, measured by several ratios that complement each other. The two main capital ratios are the risk-based capital ratio, defined as the ratio of a measure of regulatory capital divided by risk-based assets, and the leverage ratio, defined as capital divided by total assets without risk-weighting. The risk-based ratio further defines three types of capital ranking by decreasing loss-absorbing capacity, namely Common Equity Tier One or CET1, Additional Tier One or AT1, and Tier 2, whereas the leverage ratio is set only for Tier 1 capital (i.e. the sum of CET1 and AT1). The risk-based ratio is in principle more economically relevant, as it incentivises banks to hold more capital against riskier exposures, but it is comparatively easier to manipulate. The leverage ratio is harder for banks to obfuscate but is also a rougher measure of soundness, and if used alone could incentivise banks to hold too many high-risk assets.[9]

The Basel framework distinguishes three so-called pillars. Pillar 1 refers to minimum capital and liquidity requirements that are generally applicable to all banks to which the framework applies. Pillar 2 refers to additional requirements or non-binding expectations that the supervisor sets using bounded discretion in assessing risks that may not be adequately address by Pillar 1. Pillar 3 refers to requirements for public disclosures by banks, with the expectation that pressure from market participants will incentivize the banks to better monitor and manage their risks. That mechanism, and the third Basel Pillar with it, are referred to in the context of banking prudential policy as "market discipline".

The Basel Committee defines the minimum scope of application of its prudential standards as "large internationally active banks" but has been reluctant to provide specific definitions for that category, leaving its interpretation at the discretion of individual jurisdictions. Since 2011, the Financial Stability Board has designated a few dozen global systemically important banks (G-SIBs) on an annual basis. It is generally understood that all G-SIBs should be viewed as large internationally active banks, but that non-G-SIB banks may also be determined by individual jurisdictions to be large and internationally active. In the EU, the latter are referred to as "other systemically important institutions" or O-SIIs.

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[7] Documented cases of banking supervision go as far back as 16th-century Venice (Ugolini, 2017, page 124). Banking supervision by independent or semi-independent authorities (as opposed to government departments) became generalised in advanced economies in the second half of the 20th century.

[8] The Basel Committee is hosted by the Bank for International Settlements (BIS) in Basel, which provides its secretariat. The FSB is a separate body whose secretariat is also located on the BIS premises.

[9] The rhetorical and empirical case for granting primacy to the leverage ratio was memorably made by Haldane (2012). By focusing on capital, this study omits an in-depth discussion of liquidity requirements and other components of the Basel framework.

1.3.2. Other policies

Prudential policies and especially capital requirements tend to dominate the discussion about banking in the context of competitiveness debates, but they are far from being the only relevant ones. Also worth mentioning are the following policies, without aiming at exhaustivity.

- Taxation: banks are generally taxed like other companies in matters such as corporate income tax, but their business model, which largely relies on net interest margins as opposed to revenue from sales of goods or services (even though most banks also earn fees), makes them a special case. In the EU, for example, many financial services are exempted from value added tax. Conversely, several EU member states have introduced sector specific schemes of taxation of the banking sector, e.g. Italy in 2023 and Spain in 2024.

- Conduct-of-business regulation: "conduct of business" refers to a broad range of practices and operations that may be subject to public regulation, often aimed at promoting financial inclusion and at mitigating the asymmetries of information that are pervasive in financial and banking services – namely the fact that different participants (e.g. a bank and its retail clients) do not have the same level of understanding of risks, which can give rise to opportunities for abuse or fraud. An early and extreme form of that was the prohibition of usury by Christian authorities in the European Middle Ages and early modern period, even though it was very far from uniformly enforced. In the US, a specialised authority, the Consumer Financial Protection Bureau, was set up in the early 2010s solely for that purpose. Several EU member states such as Belgium and the Netherlands have authorities focused on conduct-of-business regulation whose scope of authority includes banking, similar to the United Kingdom's Financial Conduct Authority.[10]

- Financial sanctions enforcement: financial sanctions were first introduced by the UK in the midst of World War I (Mulder 2022, pages 49-54), then again in World War II, thus leveraging domestic banks as agents of warfare. In the subsequent context of the Cold War, i.e. outside of a formally declared state of war, this form of banking sector policy was made permanent in the US with the creation in 1950 of the Office of Financial Control. In the EU and the UK, financial sanctions have expanded more recently with key developments against Iran in 2012 and against Russia since 2014. Some sanctions decided in the immediate aftermath of the full-scale Russian invasion of Ukraine in February 2022, such as the immobilisation of foreign reserve assets of the Russian central bank, have also been followed by other jurisdictions including Japan, Singapore and Switzerland.

- Anti-Money Laundering / Combating the Financing of Terrorism (AML-CFT) policies: these policies have become widespread since the 1980s, with an initial focus on the fight against drug traffickers, complemented with specific attention to terrorism financing after the September 11 attacks in 2001. Key milestones have included the establishment of the Financial Action Task Force as a global AML standard-setting body in 1989, of the U.S. Financial Crime Enforcement Network (FinCEN) in 1990, of the (global) Egmont Group of Financial Intelligence Units in 1995, and of the EU Anti-Money Laundering Authority (AMLA) in 2024. AML-CFT policy entails extensive requirements on banks to report suspicious transactions, which oblige them to create onerous control frameworks.

- Competition policy: in many countries, banks have long been exempted from competition policy that was applied to other sectors of the economy, because of the complex interplay between

[10] The allocation of prudential supervision and conduct-of-business supervision to separate authorities, as in Belgium, the Netherlands and the UK, is referred to in supervisory parlance as the "twin peaks" model (Taylor, 1995).

competition and systemic risk (Carletti and Vives, 2008). That exception, however, has been gradually phased out. In the EU context, competition policy includes state aid control that is particularly impactful in cases of public financial support to distressed banks for the sake of averting systemic risk, a practice loosely but widely referred to as "bail-out".

- Sustainability policies: In the 2010s, the accumulating evidence of rapid climate change spurred policy initiatives to nudge the financial sector away from climate-harming activities and to enlist it to finance the green transition. The EU has been at the vanguard of such policies, particularly since 2018 when the European Commission set up a Technical Expert Group on Sustainable Finance to assist it in developing the EU Taxonomy for Sustainable Activities. Sustainability concerns have also been prominent in the practice of the Bank of England and of European banking supervision since the early 2020s, illustrated by the first climate risk stress tests conducted in 2021 and 2022 respectively in the UK and banking union area.[11]

- Cyber and data policies: increasingly specific frameworks have been created in recent years in response to rapid changes in technology and the risk environment, which typically apply to banks and financial firms but also, in similar if not necessarily identical form, to operators of non-financial critical infrastructure. Banking's embrace of cloud services, for which most dominant providers are from the US, has added to that theme's salience. Responses include the EU Digital Operational Resilience Act of 2022 and the cyber resilience stress test conducted by European banking supervision in 2024. A separate but related set of policies relates to data transparency, particularly in the financial sector regarding third-party access to payment and other account data referred to as "open banking" in several jurisdictions.

1.4. Interaction between competitiveness & banking sector policies

How banking sector policy interacts with competitiveness concerns is inherently hard to assess. Economics is far from an exact science especially when it comes to the role of monetary and financial matters in macroeconomic outcomes, an issue with which economists have struggled since the early days of the discipline. For the sake of brevity, this section focuses on prudential policy and especially on capital requirements, but similar arguments could be developed for other policies as listed in the previous subsection.

A sufficient level of capital requirements provides banks with both individual and overall sector stability which can benefit the overall competitiveness of the sector and the economy. All things equal, however, higher capital requirements for banks might also imply lower availability of credit, as they imply constraints on the overall volume of bank lending for a given capital base. Conversely, if capital requirements are lowered too much, systemic risk might increase and more than offset the short-term economic benefits of increased bank lending, as damaging crises become more likely with negative impact on macroeconomic conditions (e.g. Clerc et al, 2014).

Giordana and Schumacher (2017) analyse the impact of Basel III on default risk, finding no clear evidence of negative impact on banks' profitability while the default risk in case of crises decreased vis-à-vis a no-Basel III scenario. Bedayo and Galán (2024) find specifically that the Basel framework's countercyclical capital buffer, while constraining the lending capacity for certain periods, does on

[11] Here as in the rest of the study, "banking union area" refers to the euro area and Bulgaria. Furthermore, and in line with ECB practice, "European banking supervision" refers to the system of banking supervision in the banking union area, also known as the Single Supervisory Mechanism.

aggregate have a positive impact on lending. Angeloni and Faia (2013) argue in favour of a positive interaction between monetary policy and moderate counter-cyclical capital minimum requirements (i.e. higher capital requirements through buffers in expansionary periods), leading to a more stable economic cycle.

A consulting report commissioned by the European Banking Federation (Oliver Wyman, 2023) suggests that lowering EU capital requirements and regulation-related costs could create additional bank lending of €4-4.5 trillion. Fraisse et al (2017) found that an increase in capital requirements would reduce lending for investment but not for consumers.

Slovik and Cournède (2011) note that monetary policy actions could offset the negative growth impact from higher capital requirements, and Bridges et al (2014) find that the negative effects of higher capital requirements on loan growth dissipate over a three-year period. Similarly, Mendicino et al (2020) assess the effects of higher capital requirements both in the short and long run, finding that the long-run benefits offset the transition costs, with the difference being larger when risks of bank failure are high. The BIS (2010) finds similar results, with higher capital and liquidity requirements leading to a reduction of the impact of banking crises as well as the output loss in the long run.

As suggested in this summary review, part of the literature does not take the negative effects of lower capital requirements into account, in terms of lower resilience and higher systemic risk. The BIS (2021) has summarised the available literature on the impact of Basel III in the long term. That summary finds negative coefficients for both banks' probability of default and for the cost of a crisis, indicating positive macroeconomic effects of Basel III. Once the benefits of resilience are included in the analysis, the BIS found a positive impact of Basel III both for the euro-area and the US. The quantitative impact assessment from the BIS (2017) indicated a combined capital shortfall for the largest ("Group 1") banks of €90 billion to meet the Basel III requirements.[12]

Overall, it is essential to adopt a holistic approach when assessing the interaction between banking competitiveness and banking sector policies. While relaxing capital requirements can generally be expected to have a stimulative effect in the short term, it is much more difficult to assess their medium- and long-term impact on banking sector resilience and financial stability. A perspective "through the cycle" must be adopted to avoid a potentially harmful bias towards excessive policy laxity. Forgetting the lessons of the past could carry considerable risks (e.g. Berg, Boivin and Geeroms, 2025).

[12] In this strand of BIS analysis, Group 1 banks are those that have Tier 1 capital of more than €3 billion and are internationally active. All other banks for which the BIS has data are bundled together in the so-called Group 2.

2. A TALE OF TWO CRISES

In this section, we review the legacy of the past two decades and especially of the different responses to the great financial crisis of 2007–2009 in the US and the EU.[13] In our view, this retrospective look is indispensable for EU policymakers to fully grasp the trade-offs inherent in the present discussions about banking policy and competitiveness. We make three stylised observations that we view as specifically relevant.

- First, while the financial crisis started as a broadly symmetrical shock to the respective banking systems in the EU and US, EU banks received it from a position of weaker capitalisation and EU banking policymakers were extremely slow to establish credible transparency as to the true state of EU banks' balance sheets, in contrast with the significantly more proactive approach of their counterparts in the US.
- Second, the crisis and its aftermath saw a rapid and massive loss of collective competitive position of EU banks, whereas their US peers basically maintained their global share despite the rapid simultaneous expansion of banks in China and other third jurisdictions.
- Third, the restructuring that happened in the EU as an inevitable consequence of the crisis perpetuated the fragmentation of the EU banking market along national lines, whereas in the US, the restructuring contributed to greater area-wide banking market integration. The banking union policy, initiated in mid-2012 but still unfinished, has come too late and in too incomplete a manner to reverse that contrast so far. Thus, while the crisis response was arguably effective in terms of restoring banking sector resilience, it failed to ensure efficient EU-wide capital allocation, which the previous section identified as an important component of competitiveness.

2.1. US tough love versus EU forbearance

This study is not the place for a detailed description of the sequence of systemic financial turmoil that started in the summer of 2007 and reached its climax more than a year later, the most acutely remembered moment being the disorderly collapse of Lehman Brothers in mid-September 2008. Instead, what is offered here is a highly selective and stylised account, based on the authors' reading of the record of events and corresponding analytical literature.

The crisis originated in a combination of macroeconomic and microeconomic factors, among which the shortcomings of financial services policies featured prominently. But the policy gaps were very different in the EU and US, particularly when it comes to the banking sector. In the US, deregulatory pressures were at play in the 1990s and early 2000s but were partly checked by the division of labour between different federal authorities. The Federal Deposit Insurance Corporation (FDIC), in particular, remained largely immune to the deregulatory mindset, and overall the US authorities maintained relatively high capital requirements on US banks even though these were not without loopholes. By contrast, the incentives of authorities in the EU led to the erosion of resilience and allowed EU banks to expand their balance sheet without correspondingly strengthening their capital base, in part through overly generous allowances for self-serving modelling by banks of their exposures to market risk. This made them extremely vulnerable to a sudden change in the financial environment. As summarised by

[13] The financial crisis also affected other North Atlantic economies than the EU and US, particularly Iceland, Switzerland, and the UK even though these are omitted from the analysis presented here for the sake of readability as their respective financial systems are significantly smaller (NB the UK was part of the EU during the crisis but, as explained below, our analysis is focused on the EU's current scope or 27 member states). Since jurisdictions outside the North Atlantic region did not experience a similar intensity of financial turmoil, we prefer the phrase "great financial crisis" to "global financial crisis" which is sometimes used with reference to of the same period.

IMF economist Tamim Bayoumi, in the 1990s and early 2000s *"thin capital buffers became central to the business models of the core Euro area mega-banks."* In the US, risks accumulated in non-bank entities, but the same author notes that regulated banks remained *"relatively stolid"*, not least because the *"core of (the) US banking system was protected from the excesses of internal risk models by the FDIC's insistence that the simple leverage ratio be retained"* (Bayoumi, 2017, pages 43, 45 and 85).

As fragility started turning into outright crisis in the summer of 2007, and even more so after the Lehman Brothers collapse, the US and EU trajectories diverged further. The US embarked in a "tough love" approach of assessing the true state of banks' balance sheets and providing emergency public capital needed to fill any gaps, the so-called troubled asset relief program or TARP. To that aim, US authorities undertook stringent stress testing of the 19 largest domestic banking groups, known as the supervisory capital assessment program, whose results were released on 7 May 2009. Market participants were reassured that the assessment had been honest enough that no further bad surprises would be forthcoming, as turned out to be the case. From that point, normality rapidly returned to the US banking system, and the conditions associated with the public recapitalizations eventually allowed the US government to recoup all the TARP money it had injected in the banks.

In the EU, the banking sector's capital problems could be diagnosed early on, and they were (e.g. Posen and Véron, 2009). But national prudential authorities kept asserting that these problems were exogenous and that the banks in their jurisdiction were basically sound, with the hope that they would be able to recover without further public intervention – an approach known in financial parlance as "supervisory forbearance". While such forbearance has been observed in multiple past contexts, in the EU it was exacerbated by banking nationalism, namely the concern to protect and promote their own "national champion" banks mainly against competitors from other EU member states: to simplify, each authority felt that if it were first to acknowledge the fragility of the national banking system under its supervision, banks from other countries may take advantage and acquire the domestic champions. From there resulted a collective-action problem. A round of stress tests was conducted in September 2009 but with no disclosure of individual banks' results and an implausibly small publicised amount of aggregate capital shortfall. Even with more detailed further disclosures of stress testing in 2010 and 2011, bad news kept popping up in banks that had been previously assessed by the relevant national authorities (and thus in the published stress test results) as healthy: notorious examples included the disasters of Anglo Irish Bank in Dublin, Dexia in Brussels and Paris, or Bankia in Madrid. Meanwhile, contagion gradually spread to sovereign debt markets, first Greece, then Ireland, then Portugal without stopping there. Despite the creation in early 2011 of the European Banking Authority (EBA, in practice a coordinating body rather than the fully-fledged supervisor that its name suggests), no entity at the European level was empowered to counter the perverse incentives of national authorities towards excessive forbearance. Financial dislocation became increasingly pervasive and, through the bank-sovereign vicious circle, started to threaten the viability of the monetary union itself.

Eventually, the EU got its act together with the decision in late June 2012 to establish the SSM framework of European banking supervision with the ECB at its core. In the course of 2014, the SSM conducted a comprehensive assessment (including an asset quality review) of the EU's significant banks that was functionally comparable to the US stress tests of early 2009, and similarly succeeded in fostering the gradual return of trust in the system. That process was made more gradual, however, by the fact that the ECB delayed the solution of a number of specific problem cases, for example HSH Nordbank or NordLB in Germany and Carige, Monte dei Paschi di Siena, Banca Popolare di Vicenza and Veneto Banca in Italy. Trust was only fully restored in the EU banking system around mid-2017 (Véron, 2024, sections 3 and 4). The EU and its banks paid a massive price for that long delay.

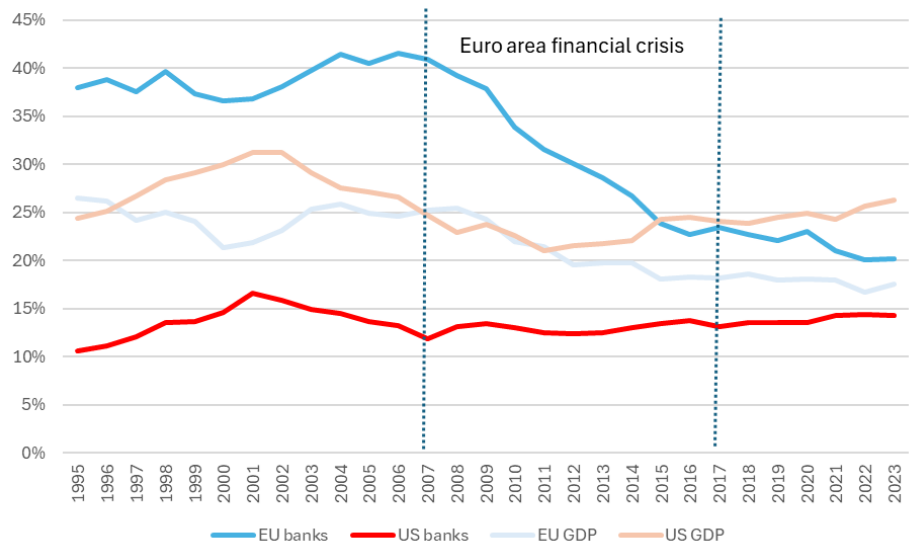
2.2. The end of global dominance of EU banks

Much of that price was paid in lost aggregate growth in the EU as a whole, and with social and economic misery in countries that were directly affected by the bank-sovereign vicious circle such as Ireland, Portugal, Spain, Cyprus, or Slovenia. (Greece was closer to a "pure" sovereign debt crisis whose causes were not ostensibly related to banking sector fragility.)

Taken as a whole, the EU banking sector also paid a heavy toll. Most banks survived the crisis, but often at the price of a sharp reduction of their activity and/or dilution of their pre-existing shareholders, which in turn led to a long-standing discount on listed European bank stock prices given that experience. A graphical illustration of the collective loss of stature of EU banks (even though some individual banks did well) is provided by Figure 1. We track the respective shares of EU and US banks (defining the EU throughout the period by its current perimeter of 27 member states, thus excluding the UK) in the aggregate total assets of the reference sample of 1,000 banks ranked every year by *The Banker* magazine, using a consistent methodology over time and together representing the vast majority of the world's banking system.

Subject to exchange rate fluctuation, EU GDP had been broadly equal to that of the US before the crisis started, then stabilised after its end at 75-80 percent of the US level, a decline that is significant but still limited in comparison with what happened in the banking sector. EU banks' total assets, which had hovered around 40 percent of the global total pre-crisis, declined precipitously to about half that share after 2017, while the share of US banks remained about constant (despite the rapid growth of Chinese banks' balance sheets during the same period). That sharp loss of global significance coincided with the decade of systemic crisis in the EU and especially the euro area,[14] namely mid-2007 to mid-2017 as explained above.

Figure 1: Shares of global GDP and of aggregate assets of The Banker top 1,000 banks



Sources: The Banker, IMF World Economic Outlook (GDP), authors' calculations; EU scope kept constant at 27 countries.

[14] The euro area has consistently accounted for more than 90 percent of total EU banking assets.

The aggregate picture provided by Figure 1 echoes countless individual stories of European banks selling portfolios of assets and/or operations in various regions throughout the decade of crisis, often as a direct consequence of the need to restore balance sheet strength.[15]

2.3. Integrated US banking market, fragmented EU

While the European banking sector experienced collective downsizing, it also underwent a necessary process of restructuring as numerous banks turned out not to have had a viable business model, and in the direst cases were exposed as insolvent. Overall, 12 of the EU's top 50 banks at end-2007 (measured by consolidated assets, again using rankings from *The Banker*) have lost viability and/or been acquired since then. While the corresponding stories are often complex, Table 1 provides a stylised summary of those cases. Table 2 displays the comparable cases of bank restructuring in the US, also from the sample of the top 50 banks by total assets at end-2007. There were 17 such cases in the US against the EU's 12, indicating a somewhat greater intensity of the restructuring process. In both samples, slightly over half of the transactions occurred in the first two years of the crisis sequence, namely 2008-2009. The striking contrast between the two tables is that these restructuring transactions resulted in further market integration in the US and not in the EU.

In the EU, the vast majority of these transactions occurred within a single member state (intra-country consolidation, marked in yellow). Fortis is an only partial exception, as its Dutch operations were nationalised (an intra-country transaction) while its Belgian and Luxembourg operations were taken over by BNP Paribas (a cross-border combination). The other exception, HSH Nordbank, rebranded Hamburg Commercial Bank following change of ownership, is the only case of takeover by private equity investors in that EU Top 50 sample. Since the acquiring funds were predominantly American (namely Cerberus, JC Flowers, GoldenTree, and Centaurus), it can fairly be counted not only as a cross-border acquisition but also as a cross-continental one (marked in orange), even though the new owners are not banks.

By contrast in the US, the only case of intra-state (actually intra-territory) consolidation in the sample is a relatively small one in Puerto Rico. All other transactions occurred across state boundaries, and five of them (marked in orange) were by acquirers from outside the US (four from Canada and one from Spain). Even though the analysis presented here does not attempt to identify causality in these observed patterns, it appears that EU restructuring mechanisms embed banking nationalism to an extent that has no equivalent in the US.

[15] The decrease in the share of EU banks may have been accentuated by technical factors such as a greater share of centrally cleared derivatives which, under applicable accounting standards, resulted in a decrease in assets booked on the banks' balance sheet. Such effects, however, are unlikely to account for the bulk of the observed trend.

Table 1: Acquisition / restructuring cases among the Top 50 EU banks as of end-2007

Acquired bank	Assets $m (end-2007)	Acquirer	Acquisition year	Country of target	Country of acquirer
Fortis	1,129,417	BNP Paribas & Dutch state	2008	Belgium / NL	France / NL
Dexia	889,981	Belgian & French states	2008	Belgium / France	Belgium / France
Dresdner Bank	736,359	Commerzbank	2009	Germany	Germany
Hypo Real Estate Holding	589,098	German state	2008	Germany	Germany
Westdeutsche Landesbank	421,834	German state	2008	Germany	Germany
Groupe Banques Populaires	402,090	Caisse d'Epargne	2009	France	France
HSH Nordbank	301,580	Private equity	2018	Germany	*US funds*
Deutsche Postbank	298,824	Deutsche Bank	2010	Germany	Germany
Caja Madrid	233,851	Bankia / CaixaBank	2010/2021	Spain	Spain
Unione di Banche Italiane	178,815	Intesa Sanpaolo	2020	Italy	Italy
Banco Popular	157,764	Santander	2017	Spain	Spain
Anglo Irish Bank	137,056	Irish state	2008	Ireland	Ireland

Table 2: Acquisition / restructuring cases among the Top 50 US banks as of end-2007

Acquired bank	Assets $m (end-2007)	Acquirer	Acquisition year	State of target	State of acquirer
Wachovia Corporation	782,896	Wells Fargo	2008	North Carolina	California
Washington Mutual	327,913	JPMorgan Chase	2008	Washington	New York
National City Corp	150,384	PNC	2008	Ohio	Pennsylvania
BB&T Bank	132,618	Suntrust / Truist	2019	North Carolina	Georgia
Merrill Lynch Bank USA	115,958	Bank of America	2008	Utah / New Jersey	North Carolina
Sovereign Bancorp	84,746	Santander	2008	Pennsylvania	*Spain*
Marshall & Ilsley Corp	66,321	Bank of Montreal	2010	Wisconsin	*Canada*
Commerce Bancorp	49,372	Toronto Dominion	2008	New Jersey	*Canada*
Hudson City Bancorp	44,424	M&T	2012	New Jersey	New York
Indymac Bancorp	32,734	OneWest / First Citizen	2008/2022	California	North Carolina
Colonial BancGroup	25,971	BB&T	2009	Alabama	North Carolina
Astoria Financial Corp	21,719	Sterling / Webster	2017	New York	Connecticut
W Holding Company	18,002	Popular	2010	Puerto Rico	Puerto Rico
TCF Financial Corp	16,068	Huntington	2021	Minnesota	Ohio
City National Corporation	15,894	RBC	2015	California	*Canada*
FBOP Corporation	14,969	US Bank	2009	Illionois	Minnesota
South Financial Group	13,872	Toronto Dominion	2010	South Carolina	*Canada*

Source: The Banker database, media reports

There have of course been more cases of cross-border bank acquisitions in the EU during that period, but only of significantly smaller banks; the largest outside the above-considered top 50 has been Lisbon-based BPI, ranked 97th at end-2007 and acquired by Spain's CaixaBank in 2016-2017. A major test case of cross-border consolidation among EU banks is the intended takeover by Milan-based UniCredit of Frankfurt-based Commerzbank, announced in September 2024. Commerzbank was the 9th-largest EU bank by total assets at end-2007, just behind Fortis. The fate of that transaction, however, remains undecided at the time of writing.

3. CURRENT EU AND US POLICY FRAMEWORKS COMPARED

In this section we provide a more in-depth comparison of the EU and US banking policy frameworks. We focus principally on prudential policy, observed capital levels and financial conditions, transatlantic competition and level playing field concerns. The choice of the US as benchmark is based on two considerations. The first is a focus on broadly commercially driven banking systems, which rules out China's, since that system is dominated by state-owned banks that are largely policy organisations.[16] The second criterion is size. Aside from China, all other banking systems, including in Japan and the UK, are significantly smaller than those in either the US or EU, which makes them less directly comparable. This choice of benchmark comparison is also in line with the recent Draghi (2024) and Letta (2024) reports.

With that in mind, the US and EU banking systems have significant differences in terms of market structures and business models as well as policy frameworks. We focus here on the latter.

3.1. Prudential policy

In line with Section 1 above, prudential policy is understood here as the combination of micro-prudential, macro-prudential, and resolution policy frameworks.

The US and EU have different ways to formulate prudential policies. The US institutional setting typically results in less frequent legislative change than in the EU, in banking sector policy as in other areas, and (until now at least) has resulted in a larger share of rulemaking being done directly by the specialised agencies ("regulators") that also exercise supervisory authority. In banking policy, these are primarily the Federal Reserve, the FDIC, and the Office of the Comptroller of the Currency (OCC), complemented by the Consumer Financial Protection Bureau (CFPB).[17] In the last 15 years, two legislative acts stand out in US banking sector policy, namely the Dodd-Frank Act of 2010 and the Economic Growth, Regulatory Relief and Consumer Protection Act of 2018. In the EU, banking sector legislation has been of higher frequency, with notably a series of successive revisions to the Capital Requirements Directive (CRD) and Regulation (CRR).

3.1.1. Tailoring / proportionality

In US terminology, "tailoring" refers to the differentiation of prudential policies depending on the size of banks, viewed as a rough proxy for systemic significance. In recent years, European banking policy debates have referred to the same concept as "proportionality";[18] similarly at the global level, the BIS states that proportionality *"allows assessments of compliance with the B[asel] C[ore] P[rinciple]s that are commensurate with the risk profile and systemic importance of a broad spectrum of banks".*[19] Importantly, US tailoring does not uniformly result in lower standards for smaller banks, since exemptions from some of the risk-based capital requirements and supervisory regimes are partly offset for some such banks by higher leverage ratio requirements.

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[16] Even though the largest Chinese banks are all publicly listed with a free float of largely private-sector shareholders, the government retains well above half of their equity capital and they have been observed on multiple occasions to act as instruments of the Chinese authorities' policies.

[17] As detailed in Lehmann and Véron (2021), non-bank depositary institutions known as credit unions play a much larger collective role in the US than in the EU and are supervised there by a separate agency, the National Credit Union Administration. For simplicity, we omit credit unions altogether in the rest of this analysis.

[18] Proportionality is also a principle enshrined in the EU treaties, whose meaning is not identical to its use in the prudential policy context as described here.

[19] See the summary on the BIS website at https://www.bis.org/fsi/fsisummaries/proportionality.htm. A more in-depth analysis of tailoring / proportionality in the US and EU is provided in Lehmann and Véron (2021).

The 2010 Dodd-Frank Act has introduced a stronger prudential regime for some larger banks (with assets above $50 billion), known as Enhanced Prudential Regulation (EPR) (CRS, 2023a). The Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 has loosened some of the corresponding layers of requirements, allowing banks with assets between $50 and 100 billion to be exempted from EPR. The Federal Reserve can also exempt banks with assets between $100 and $250 billion from EPR on a case-by-case basis. EPR remains applied to all G-SIBs and banks with assets above $250 billion, or $75 billion for those deemed internationally active. The Fed has also applied EPR to foreign banks above $50 billion in US assets and $250 billion in total assets.

The EU CRR/CRD framework generally applies the Basel standards (albeit with deviations) to all banks irrespective of size. There are differentiations though. In the banking union area, a distinction is made by the SSM Regulation of 2013 between "significant institutions" (SIs), namely banking groups with more than €30 billion in total assets plus a few more especially in smaller member states, and "less significant institutions" (LSIs), namely all other banks.[20] SIs are directly supervised by the ECB with involvement of the relevant national supervisors, whereas LSIs are supervised by the relevant national supervisor with oversight by the ECB. The SSM has worked at reducing the differences in supervisory approach between SIs and LSIs since its takeover of authority on 4 November 2014.[21] A twist is that a significant majority of LSIs in the euro area, representing nearly half of aggregate LSI assets, are members of so-called institutional protection schemes (IPSs) which, from a systemic perspective, have similar attributes as large banks. That feature undermines the case for lowering the requirements that apply to LSIs that are members of an IPS on grounds of their small individual size (Lehmann and Véron, 2021). The CRR/CRD does, however, allow for some less demanding reporting requirements on smaller banks, including those that are members of an IPS.

3.1.2. Capital standards

The Basel III framework sets the minimum requirements for the CET1 risk-based capital ratio as well as the leverage ratio for internationally active banks. The generally applicable (Pillar 1) requirements set the minimum CET1 ratio at 4.5 percent and, on top of that, a so-called capital conservation buffer at 2.5 percent, plus a countercyclical buffer under macro-prudential policy and an additional buffer for G-SIBs (BIS, 2025). In addition, the Basel framework foresees requirements subject to supervisory discretion, or Pillar 2, to cover additional risks not covered by the first pillar. Basel III separately sets the minimum Pillar-1 leverage ratio at 3 percent, with an added leverage buffer for G-SIBs.

The EU has adopted from Basel III the minimum CET1 requirement at 4.5 percent, the capital conservation buffer at 2.5 percent, additional buffers for G-SIBs and O-SIIs, and countercyclical buffer on a country-by-country basis, and added a "systemic risk buffer" covering any other systemic risks. On top of that, Pillar 2 decisions are split into two components: the so-called Pillar-2 requirement or P2R, which is mandatory; and Pillar-2 guidance or P2G, which is technically non-binding. Both P2R and P2G are set by ECB banking supervision for SIs in the banking union area. Macroprudential buffers (namely any O-SII buffer, countercyclical buffer and systemic risk buffer) are determined at the national level, with the ECB having an option to "top up" (i.e. increase) them if it determines that the national

[20] For details on the SI/LSI determination, see the ECB website at https://www.bankingsupervision.europa.eu/framework/supervised-banks/criteria/html/index.en.html.

[21] As explained on the website of the National Bank of Belgium, the participating authority in the SSM for Belgium, *"At any time the ECB can decide to directly supervise any one of these banks to ensure that high supervisory standards are applied consistently"*. See https://www.nbb.be/en/financial-oversight/prudential-supervision/single-supervisory-mechanism-ssm#:~:text=The%20ECB%2C%20in%20cooperation%20with,grant%20or%20withdraw%20banking%20licences.

authority has failed to take due action (ECB, 2025); the ECB has never exercised its top-up option so far.

Since 2021, a minimum leverage ratio requirement of 3 percent has applied to all EU banks, also in line with Basel III. For SIs in the banking union area, ECB Banking Supervision sets P2R and P2G leverage ratio add-ons based on stress tests; G-SIBs face an extra leverage ratio buffer set at half of their G-SIB buffer set for the CET1 ratio.[22]

In the US, banks not under EPR are required to hold a minimum CET1 ratio of 4.5 percent, Tier 1 at 6 percent, and total capital (Tier 1 and Tier 2) at 8 percent, plus capital conservation buffer at 2.5 percent, all in line with Basel III. For large banks, the framework adds a "stress capital buffer" (SCB, not labelled as a Pillar 2 requirement but functionally somewhat similar) based on supervisory stress test results, plus a capital surcharge for G-SIBs which, unlike in the EU, is typically larger than that recommended by the FSB (Feierstein and Donohue, 2022).[23] The Federal Reserve also has an option to apply a countercyclical buffer but has never used that option to date. The leverage ratio (Tier 1 capital to consolidated assets) is set at a minimum 4 percent for all banks. A slightly different "supplementary leverage ratio", in whose calculation some off-balance-sheet exposures are added to the denominator, is set at 3 percent for most large banks and at 5 percent for G-SIBs.[24]

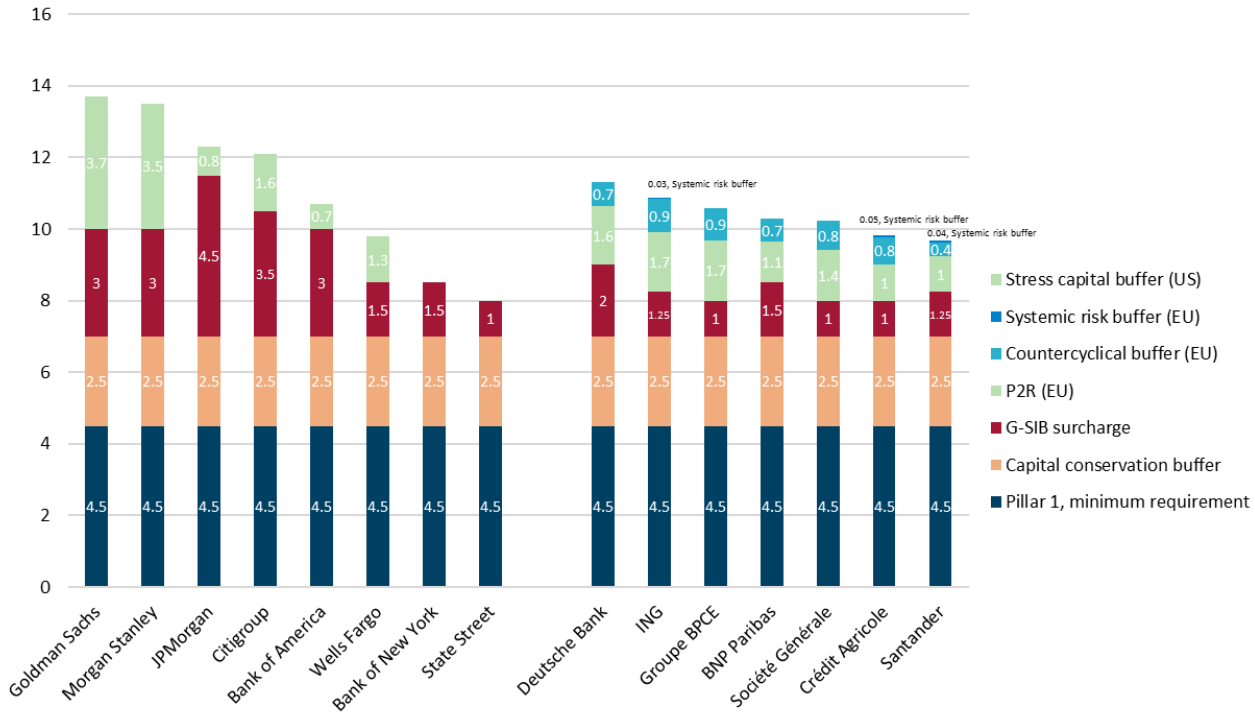
Figure 2 shows the capital requirements set by the respective authorities for all G-SIBs in the EU and US, disaggregated by component (with the exception of P2G in the EU, which is typically not disclosed). P2R in the EU and the stress capital buffer in the US are displayed in the same colour as they are functionally similar.

[22] See details on the ECB website at https://www.bankingsupervision.europa.eu/activities/srep/html/lrp2g.en.html#:~:text=The%203%25%20leverage%20ratio%20requirement,it%20is%20not%20legally%20binding.

[23] https://www.federalreserve.gov/publications/files/large-bank-capital-requirements-20240828.pdf

[24] For a more detailed explanation of the US framework for capital requirements, see CRS (2023b).

Figure 2: CET1 capital requirements for G-SIBs in the US and EU (excluding P2G) (%)



Source: authors' calculations based on Federal Reserve Board (for US banks, as of 1 October 2024[25]) and individual company disclosures (for EU banks, as of 1 January 2025). G-SIBs are as listed in November 2024 by the FSB. Note: Deutsche Bank and Société Générale appear to bundle the systemic risk buffer with the countercyclical buffer in their disclosures. We inferred ING's G-SIB buffer and systemic risk buffer as they were not separately disclosed. We found no indication of a systemic risk buffer for either BNP Paribas or BPCE.

3.1.3. Transparency

Reporting requirements on American banks are partly consolidated into "call reports", which are quarterly reports which all US banks need to provide with detailed metrics that include asset categories and capital measures and are made public via the portal of the Federal Financial Institutions Examination Council (FFIEC)[26]. Bank holding companies with consolidated assets above $3 billion file separate reports (known as FR Y-9C) at the Federal Reserve, which also include detailed financial and regulatory metrics and are similarly made publicly available. All US banks, whether listed or unlisted, must use the same accounting standards (Generally Accepted Accounting Principles, or US GAAP) for their financial accounting.

In Europe, the disclosure obligations are more heterogeneous and generally less demanding, particularly for unlisted banks and despite ongoing efforts to implement the Basel framework's latest Pillar 3 requirements. Accounting standards are harmonised at the EU level only for listed banks, which must use International Financial Reporting Standards (IFRS) as adopted by the EU. In some countries, such as Italy, unlisted banks must also use IFRS, but in others such as Germany, they only use different national accounting standards. Since the early 2010s, and on a more consistent basis since 2018, the EBA has published banking group-level metrics that are somewhat functionally equivalent to call

[25] https://www.federalreserve.gov/publications/files/large-bank-capital-requirements-20240828.pdf

[26] The FFIEC brings together the Federal Reserve, FDIC, OCC, CFPB, and National Credit Union Administration.

reports in the US, but only for the largest banks until now, and at best on a yearly basis as opposed to quarterly for US call reports; the level of detail is generally lower.

Also of note is that the public oversight of auditors varies across EU countries. Furthermore, many banks that are members of German IPSs, namely most local public savings banks (*Sparkassen*) and cooperative banks, do not rely on independent external auditors but are instead audited by an in-house entity of their respective IPS. This heterogeneity of auditing frameworks could imply variations in the reliability of some of the disclosed data.

3.1.4. Crisis response and resolution

The Bank Recovery and Resolution Directive (BRRD) of 2014 and its successive amendments have brought the EU closer to the US framework of resolution managed for decades by the FDIC. Significant differences remain, however, for two main reasons, respectively linked to the procedure to deal with a non-viable bank and the institutional setup.

First, in the US, FDIC-led resolution is the only path for any bank that becomes failing or likely to fail.[27] In the EU, by contrast, there are two divergent paths known respectively as "resolution" and "normal insolvency proceedings", the latter being in principle the default option. Resolution is led by the relevant resolution authority, either in the respective member state or the Single Resolution Board (SRB) at the European level. At the time of writing, resolution has been triggered in only three cases in the euro area since the full entry into force of BRRD in early 2016, namely Banco Popular Español in 2017 and the two subsidiaries of Russia's Sberbank in Croatia and Slovenia in 2022 (there have been a few more cases in non-euro-area countries). Normal insolvency proceedings are highly diverse across EU countries, and depending on the case, may be led by a specialised court, an administrative authority, or a mix thereof.

Second, in the EU many authorities may be involved, whereas in the US the FDIC is sole in charge. In the banking union area, the 100-odd SIs supervised directly by the ECB, plus a handful specifically designated by the SRB, are under the resolution authority of the SRB, while all others (LSIs in the banking union area and all banks in non-euro counties) are under the relevant national resolution authority. The SRB has capacity for financial interventions as it manages the Single Resolution Fund, which has collected an aggregate €78 billion from banks in the banking union area. Since that fund reached its target level after eight years of build-up from 2016 to 2023, it has not collected additional contributions in 2024.[28]

In addition, while the FDIC (as its name indicates) manages the US deposit guarantee scheme (DGS) for all banks, DGSs are kept at the national level in the EU, even in the banking union area. Depending on member states, the national DGS may be managed by the national resolution authority or kept separate from it, and in four member states (Austria, Germany, Italy and Poland) there are several DGSs within the country. The target levels of national DGSs are generally slightly lower than the FDIC's Deposit Insurance Fund in proportion to bank deposits, but if the SRB's Single Resolution Fund is added, the overall burden of deposit and resolution funding is slightly higher in the EU (Véron, 2024b, page 110). More significantly perhaps, several DGSs used to be unfunded before a reform in the 2010s, so that banks in the corresponding countries have had to pay significant deposit insurance fees to fund the DGS at the same time as they were contributing to building up the SRB's fund. This has generated

[27] "Failing or likely to fail" is the BRRD's language to refer to the point at which a bank ceases to be viable.

[28] See details on the SRB website at https://www.srb.europa.eu/en/content/single-resolution-fund-no-expected-contribution-2024-target-level-reached.

widespread and vocal dissatisfaction in the banking sector, of which some lingers to this day, even though the build-up phase has been completed.

Adding to the complexity, the European Commission in its capacity as enforcer of the EU state aid control framework (under EU competition policy as set by European treaties) intervenes in cases where public funds are used to deal with a bank that is failing or likely to fail.

In total, there are many cooks in the EU bank-crisis-response kitchen, including the SRB, the European Commission, national resolution authorities, national DGSs and courts, whereas the same functional role is granted in the US to a single entity, the FDIC[29].

3.2. Other banking sector policies

Given the fields' complexities, the overview provided here is even more holistic than on prudential policy and is only intended to highlight a few salient features.

3.2.1. Consumer protection

In the US, a major step towards greater protection of consumers against abuse by banks was achieved with the establishment of the CFPB in 2011, technically part of the Federal Reserve but in practice an independent federal agency. Individual states also play a role in consumer protection, which is enforced within their respective jurisdictions by the state banking regulator. The situation is fluid, however, given the Trump administration's apparent intent to terminate the CFPB's activity. In turn, at least some if not all states could ramp up their consumer protection regulations and oversight, to offset the void thus created at the federal level.

In the EU, legislation to at least partly harmonize banking consumer protection policies has been adopted in areas that include consumer credit (2008/48/EC), mortgage credit (2014/17/EU), payment accounts (2014/92/EU), and payment services (2015/2366). Even so, much of the consumer protection framework remains defined at the national level, and its enforcement is a near-exclusive preserve of national authorities, with a limited EU-level overlay. This state of affairs has often been defended by policymakers and industry representatives on the basis that consumers of financial services have different preferences in different member states, a claim that is however far from self-evident.

3.2.2. Policing of financial sanctions and financial crime

Both the US and EU have built up frameworks that compel banks to support their respective AML-CFT and sanctions policies. In the EU, the national enforcement of that framework had been comparatively lax and ineffective, as was widely seen in a string of revelations of malpractice by several banks in the late 2010s. EU legislation adopted in 2024 marks a major step towards a more consistent EU-level approach that would reduce the gap with US practice. In any case, while these AML-CFT frameworks are onerous, they are not of such a nature that they would weigh on economic competitiveness on a macroeconomically relevant scale.

3.2.3. Competition policy

Competition policy frameworks apply to banks in both the US and EU, with the above-mentioned twist that the EU framework includes state aid control, a concept that is generally absent from US policies and practices.

[29] For large US banking groups under a bank holding company, the Federal Reserve is also involved. This cursory description skips over liquidity policies which also play a major role in bank crisis response.

In both the EU and US, there have been instances of government financial support to fragile or failing banks, but the patterns have been markedly different. In the US, the political aversion to "bank bailouts" is deeply entrenched, and the direct provision of fiscal resources to address banking sector fragility is infrequent. The only instance in the 21st century has been TARP, on which the federal government has eventually made a financial gain as previously mentioned; there have been no cases of financial support provided by state budgets.[30] In the EU, by contrast, there have been numerous cases of fiscal expenditure into bank rescues, plainly justifying the disciplining framework of state aid control to mitigate the corresponding market distortions.

3.2.4. Sustainability

The EU has introduced ambitious sustainability policies since the late 2010s, which at this point have essentially no counterpart in the US. Even in the EU, the situation is somewhat fluid given the European Commission's stated intent to reduce the reporting burden on business. While the SSM has been at the forefront of banking supervisors worldwide in terms of mandating in-depth monitoring by banks of their sustainability-related risks, how that stance may evolve in the near future remains somewhat to be seen.

3.2.5. Cyber / data resilience

In recent years, cyber and data policies have become increasingly significant in the EU in the context of its deteriorating geopolitical environment and of the fast diffusion of new service arrangements, especially cloud services, for which the dominant providers are US-headquartered. At the same time, EU policymakers have been generally more insistent than their US counterparts on defending privacy and individual ownership of personal data, including financial data.

As a consequence, a somewhat onerous policy framework has developed in the EU, particularly regarding financial firms' reliance on critical information technology service providers with the Digital Operational Resilience Act (DORA) of 2022, and the obligation for banks and other financial firms to make some consumer data available to other service providers through a legislative package proposed by the European Commission in June 2023 and referred to as Financial Data Access (FiDA). While US supervisors also monitor banks' operational resilience, and the CFPB has recently pioneered a form of open banking policy (referred to as personal financial data rights), no equivalent initiatives to DORA or FiDA currently exist in the US or appear likely in the near future. Since this is an emerging policy area, and unlike, say, with capital requirements for which more historical experience is available, the resilience benefits of regulations such as DORA are practically impossible to quantify.

3.3. Observed capital levels and financial conditions

3.3.1. Observed capital levels

This section presents an empirical comparison of recent levels of bank capitalisation in both the EU and US, as well as a summarised observation of credit conditions in both markets. Overall, our findings are consistent with the ECB's view that large banks under SSM supervision do not face significantly different requirements than their US peers (Buch, 2024).[31]

[30] The pattern of intervention by the FDIC is more ambiguous, including during the regional banks crisis of March 2023; any losses incurred in such cases, however, are recouped by the FDIC through levies on the surviving banking sector.

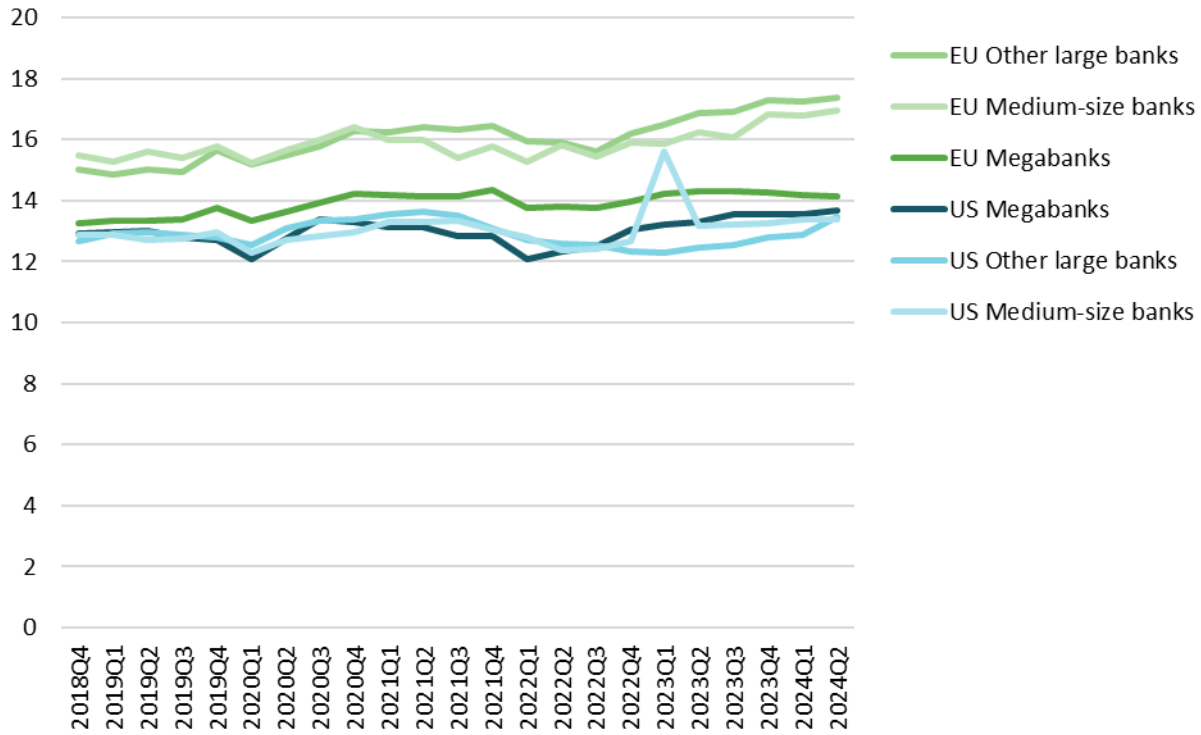
[31] According to media reports, more in-depth analysis has been performed at the ECB but left unpublished: see Martin Arnold, "ECB split over report showing big EU banks' capital requirements lower than US rivals", *Financial Times*, 18 November 2024, at https://www.ft.com/content/48f84e00-836d-4659-9d78-60ababfa83ed.

Figure 3 shows the differences in CET1 capital ratios for most significant EU and US banks, defined as total assets above 30 billion euros or dollars respectively. For each of the two jurisdictions, these significant banks are disaggregated into three groups based on size: "megabanks" above 1 trillion, "other large banks" from 100 billion to 1 trillion, and "medium-size banks" from 30 to 100 billion. We calculate simple (non-weighted) average ratios for each group. As it happens, our definition of megabanks nearly coincides with the FSB's latest (2024) G-SIB determinations, the only exceptions being Bank of New York and State Street in the US, which are G-SIBs but well under $1 trillion in assets. Our sample covers the overwhelming majority of bank assets in both systems; details on the samples are provided in the annex at the end of this study.

As Figure 3 shows, EU megabanks tend to have slightly higher CET1 capital ratios than their American peers, but the difference is not very significant – echoing the above findings on capital requirements in Figure 2. There is a more observable difference for medium-to-large banks, for which CET1 ratios are similar to those of megabanks in the US but somewhat higher in the EU. Of note is that megabanks is the segment in which there is most direct competition between EU and US banks, albeit only in some business segments and largely excluding retail banking.

Furthermore, our analysis is crude as it does not correct for differences in risk-weighting practices. In the US, the Dodd-Frank Act of 2010 (so-called Collins Amendment) implies generally higher risk weights which, for megabanks if not for smaller ones, may more than offset the observed gap. Enria (2023) referred to unpublished ECB analysis attempting to quantify this effect: *"Relative to their actual requirements today, we find the average requirement for European banking union significant institutions as a whole would be somewhat higher under the US rules. The requirements would be significantly higher for the European G-SIBs, while they would be lower for most medium size and smaller European banks in the sample."*

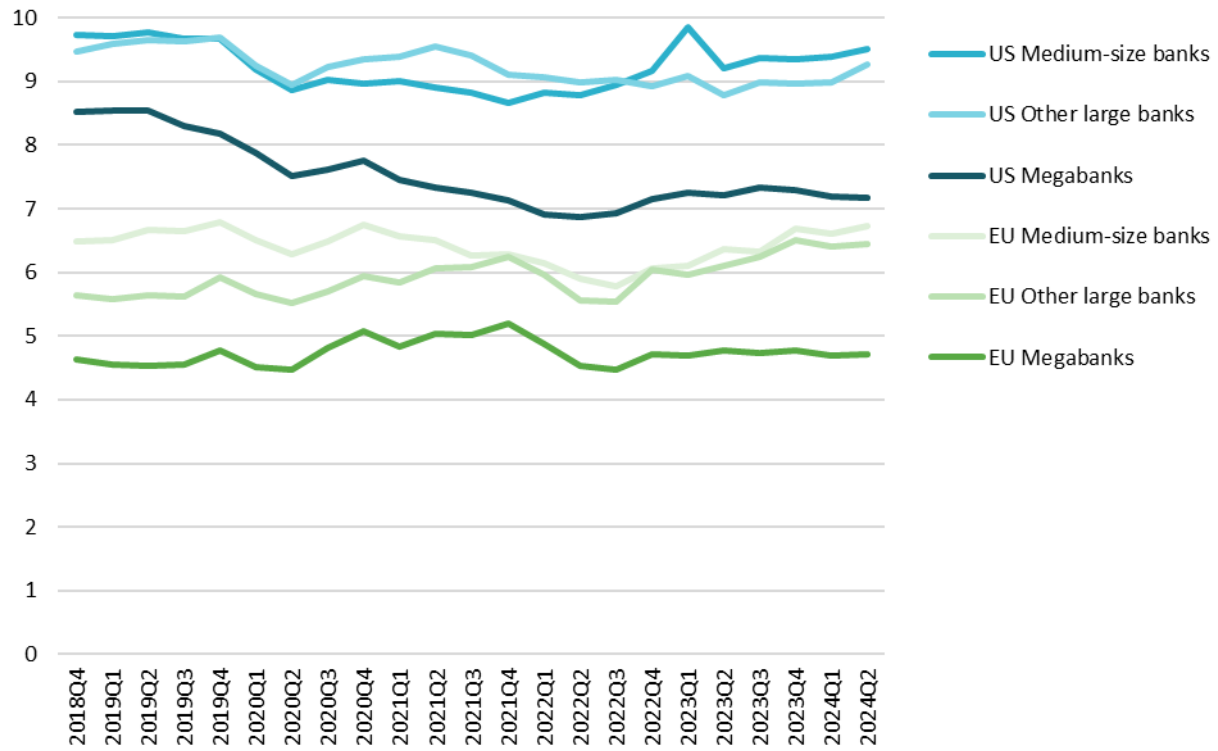
Figure 3: Observed CET1 ratios for EU and US banks, 2018-2024



Source: authors' calculations based on data from the EBA and Federal Reserve. See annex for details.

Figure 4 shows the same analysis on identical samples for leverage ratios. Here the pattern is markedly different, with US banks significantly better capitalised by this measure than their EU peers. This holds true for all size-based groupings in our sample. The average leverage ratio gap between US and EU megabanks has decreased since 2018 but remains around 2 percentage points. US megabanks have leverage ratios around 40 percent higher than their EU peers.

Figure 4: Observed leverage ratios for EU and US banks, 2018-2024



Source: authors' calculations based on data from the EBA and Federal Reserve. See annex for details.

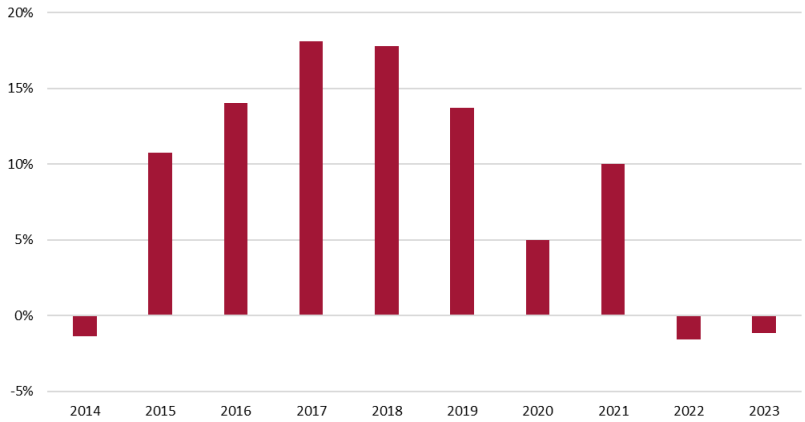
As emphasised above (1.3.1), there are plausible arguments to view both CET1 and leverage requirements as needed for sound prudential regulation of banks. Ther introduction of leverage requirements in the EU in the late 2010s has, from that standpoint, represented a great improvement in the EU prudential framework; Figure 4 documents the significant gap that remains in that area between the EU and US.

3.3.2. Financial conditions

A common critique from the banking industry of high levels of capital requirements is based on their alleged impact on credit availability. The above-mentioned report by Oliver Wyman (2023) for the European Banking Federation observes EU capital requirements as higher than those for US banks (respectively, 10.6 percent in the euro area and 9.9 in the US), because their sample extends to 108 euro-area banks and 34 US banks thus going well beyond the G-SIB space. They suggest that lowering the European requirements to similar levels as in the US, and also including costs associated with banking regulation, the EU could create additional lending capacity in excess of €4 trillion. Without entering into any detailed discussion of that estimate's methodology, however, the observation of current financial conditions does not suggest major differences between the EU and the US.

The perceptions of non-financial companies in the euro area are tracked by the ECB's Survey on the Access to Finance of Enterprises (SAFE). Figure 5 indicates that perceptions of credit availability have improved markedly in the late 2010s and stabilised in the early 2020s.

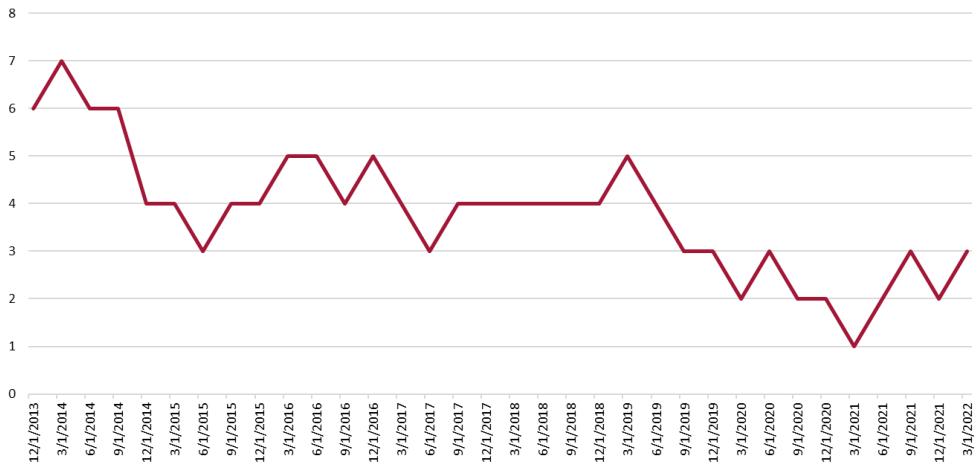
Figure 5: Net change in EU companies' responses on credit availability



Source: ECB SAFE question 11 subsection f: "For each of the following factors, would you say that they have improved, remained unchanged or deteriorated during the {previous quarter and current quarter} or {current quarter}?". The bars show the difference between "improved" and "deteriorated" responses.

Figure 6 indicates perceptions of credit conditions from US Federal Reserve business survey data (unlike in the previous chart, higher levels here indicate less favourable credit conditions).

Figure 6: Net fraction of US firms reporting tighter credit conditions

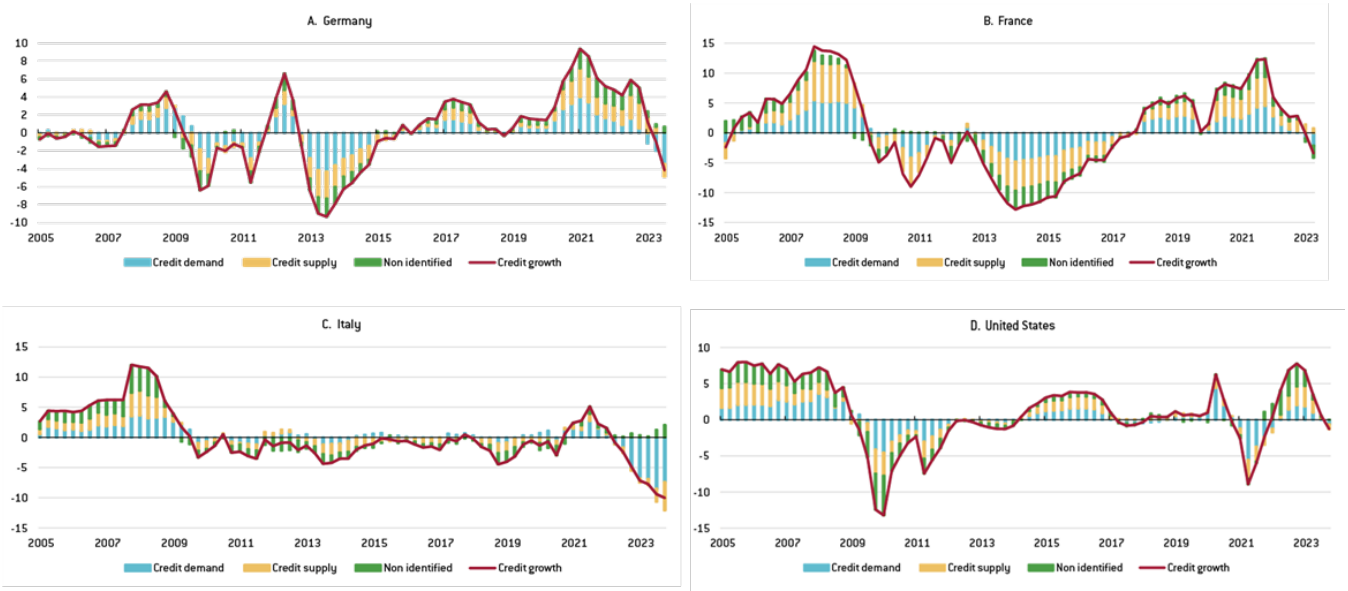


Source: Fed based on National Federation of Independent Businesses (NFIB).

Note: The question was asked to firms reporting regular borrowing. The fraction indicates firms reporting tighter conditions compared with 3 months ago.

Keeping in mind that the most recent years are not yet available in these data series (ending in 2023 for the ECB's and 2022 for the Federal Reserve), the surveys provide no evidence for credit scarcity in either the US or euro area. Recent research by Quaglietti (2024) suggests that the lower growth of credit in the European and US economies during the last two years is linked to both supply and demand factors, with the slowdown in credit demand playing a larger role in the euro-area as illustrated in Figure 7. Similarly, the ECB (2024) points to the stronger credit demand in the US as a factor of more sustained credit growth, with the rates for lending remaining larger in the US.

Figure 7: Contributions of demand and supply shocks to credit growth (%)



Reproduced from Quaglietti (2024). Note: Decomposition of the year-on-year percentage change of credit growth relative to its long-term trend.

3.4. Wrap-up

Overall, banking sector policies in the EU, and especially prudential policies, involve generally more complexity than their US equivalents. They are far from fully integrated on an EU scale and thus contribute to banking and financial market fragmentation in comparison with the near-unitary framework for banking policy in the US. While causality is hard to establish, that fragmentation may explain much of the EU/US differential in price-to-book ratios, which has remained near-constant over the past two decades (Heider et al, 2025, Figure 1 on page 14).

For G-SIBs, which represent the segment where most direct competition happens between EU and US banks, we observe no major differences in either risk-weighted capital requirements or risk-weighted capital levels; the leverage requirements are more demanding in the US, with correspondingly higher observed leverage ratios. Overall, the different prudential frameworks have not resulted in any credit scarcity in recent years.

In contrast to the greater fragility of the EU banking sector in the 2000s and early 2010s as emphasised in Section 2, the EU banking sector has demonstrated satisfactory resilience in recent years. The US, by contrast, underwent a significant if extremely brief banking crisis in March 2023, remembered as the failure of Silicon Valley Bank and actually involving more widespread perceived fragility in the US banking sector.

4. RISK OUTLOOK AND POLICY RECOMMENDATIONS

4.1. Risk outlook

This section provides our summarised assessment of the risks that EU policymakers should keep in mind while managing the trade-offs that relate to the banking policy decisions they may take in the near future. Evidently the risk landscape is evolving rapidly these days, but we believe the two main risk drivers emphasised here are likely to stay prominent for some time.

4.1.1. EU: rise of geopolitical risk

The first driver is the obvious deterioration of the EU's geopolitical environment, certainly compared with a decade ago when the EU viewed the US as a steadfast ally, China as a broadly friendly counterpart, and Russia as a difficult neighbour but with which it was still possible to do business.

It is to the credit of European banking supervision, among others, that the disruption arising from Russia's full-scale invasion of Ukraine in February 2022 has not resulted in financial instability in the EU. This only highlights the need of appropriate buffers for banks to be able to withstand unanticipated events.

4.1.2. US: rise of systemic risk

The Trump administration has signalled its intent to, in the words of its Treasury Secretary, engage in *"deregulating the financial sector to accelerate what I call the re-privatization of the economy"* and *"re-leveraging the private sector"* (Bessent, 2025). Recent media reports have suggested a specific intent to relax US banks' leverage ratio requirements.[32] While the details of how this vision may be implemented remain scarce at the time of writing, they are likely to include less demanding supervision and possibly laxer regulation, not to mention a possible erosion of the rule of law that underpins the US financial system and the international role of the US dollar. In aggregate, this context suggests a likely rise of systemic risk in the US, to which the EU banking system has large direct and indirect exposures. This has started to be explicitly acknowledged by political leaders and policymakers in the EU.[33]

It is notable in this context that the analysis of the US banking crisis of March 2023, led by Federal Reserve Vice-Chair Michael Barr and published in late April 2023, placed much of the blame for supervisory failure on the relaxation of supervisory standards under his predecessor Randal Quarles during the first Trump administration (Barr, 2023). Following that sequence, a number of recommendations were made to improve the US prudential framework (e.g. GAO, 2024) but appear unlikely to lead to any action under the current administration.

4.2. Policy recommendations for the EU

Our analysis presented above suggests the EU should prioritize banking market defragmentation first, and second, simplify and streamline the prudential framework for banks without reducing resilience. The following recommendations are made in accordance with that order of priorities.

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[32] Martin Arnold, Kate Duguid and Claire Jones, "US set to relax post-crisis capital rules as Trump advances bank deregulation" *Financial Times*, 16 May 2025, at https://www.ft.com/content/90196d6d-b147-4943-9b26-888c171d6a5a.

[33] See e.g. Eliza Gkritsi, "Trump tariffs 'increase risk' of financial crisis, Germany's Merz warns", *Politico*, 13 April 2025, at Trump tariffs 'increase risk' of financial crisis, Germany's Merz warns – POLITICO.

4.2.1. Complete the banking union

In the present circumstances, the action that would most enhance the banking sector's contribution to EU competitiveness would be the completion of the banking union, because it would impact both dimensions we identified as determinative in section 1. First, a completed banking union would improve the EU-wide[34] allocation of credit, as it would come much closer to delivering on the promise of a single banking system. Second, it would greatly improve resilience by removing the existential threat of the bank-sovereign vicious circle that nearly triggered the breakup of the euro area in 2011-2012.

Concretely, that would be achieved by the introduction of a unitary bank crisis response framework including a European deposit insurance, coupled with the implementation of sovereign concentration charges to guard against possible abuse by individual national governments of the corresponding supranational quasi-fiscal safety net.[35]

In practice, negotiations on the completion of the banking union, which had been on and off from 2015 to 2022, met a roadblock in June of that year and have not meaningfully restarted since then. Two partial legislative projects are in a state of limbo: the proposal for a European Deposit Insurance Scheme published by the European Commission in November 2015, and that for Crisis Management and Deposit Insurance (but keeping the latter at the national level) published in April 2023. Another incomplete piece is the intent to have the European Stability Mechanism, a euro area fund based in Luxembourg, provide a backstop to the SRB's Single Resolution Fund; this cannot be implemented as long as one member state (Italy) has not ratified the corresponding intergovernmental agreement.

In all likelihood, the next opportunity to revive the banking union conversation will be the delivery by the European Commission of its 2026 Report on Banking, since a holistic approach is needed that would bring together the different policy strands.

4.2.2. Integrate macroprudential decision-making in the banking union and simplify the capital stack

As presented above, the "capital stack" or set of loss-absorbency requirements (including MREL) imposed on EU banks has become extremely complex and cries for streamlining (e.g. EBA, 2024). Such simplification has much less potential structural impact than completing the banking union, but is nevertheless worthy of consideration as it would allow EU banks, especially medium-sized ones, to focus more on their core lending business as opposed to struggling with unnecessarily complex compliance requirements.

A major driver of complexity is the awkward coexistence of national and European centres of decision-making in setting macroprudential buffers. When the corresponding compromises were made in 2012-2014, there was a plausible argument that the ECB did not have the capacity to understand the specificities of national financial cycles and related decisions such as setting countercyclical buffers. This argument no longer holds now that ECB Banking Supervision has accumulated in-depth knowledge of national environments in its more than ten years of supervisory practice. In other words, the time has come to integrate the setting of macro-prudential buffers at the banking union area level and to align the setup for corresponding decision-making with that for micro-prudential supervision. To be clear,

[34] Specifically in the euro area and Bulgaria for now, but also with the prospect of more EU member states adopting the euro as their currency and thus joining the banking union in the medium to long term. In its current scope, the banking union area already represents about nine-tenths of total EU banking assets.

[35] The regulatory treatment of sovereign exposures is mentioned here as a necessary condition for a single bank crisis response framework and thus for banking union completion. The corresponding arguments have been developed at length in a recent publication (Véron, 2024) and are not repeated here in any detail.

some buffers – e.g. counter-cyclical ones – might still be set at different levels for different country environments, thus responding to different financial conditions and cycles, but by a single European authority that is better placed to do so in a politically neutral way than national authorities in the current practice.

The timeframe for this study has not allowed us to examine in depth the various options on how best to do so and especially the respective roles that may be played at the European level, if any at all, by the ECB – as banking supervisor and/or in its monetary policy capacity, the latter channelled through its Directorate-General for Macroprudential Policy and Financial Stability – and the European Systemic Risk Board, which is hosted by the ECB but whose mandate covers the entire EU. We also have not explored the interaction between the setting of macroprudential capital buffers, on the one hand, and on the other hand, other macroprudential measures that are not directly related with the capital stack.

Beyond macroprudential buffers, other features of the capital and loss-absorbency stack could also be made simpler than they currently are, including MREL requirements that we did not explore in specific depth in this study. The EU, however, must clearly separate the debate about complexity from that about levels of requirements, which some banking lobbyists tend to deliberately confuse. Given the previously outlined risk environment, now is not the time to water down capital and broader loss-absorbency requirements – if anything, there would be a sound argument for ramping them up, even though we stop short of that recommendation. Any streamlining should aim at keeping the requirements at least at their current (fully loaded) level in aggregate, even though the impact of reform would inevitably be differentiated across individual banks.

As with the previous point on completing the banking union, the forthcoming 2026 Report on Banking is the natural vehicle for advancing this simplification debate. With the latest iteration of the Capital Requirements Regulation enacted as recently as May 2024, there should be no rush to revise its parameters before next year.

In that forthcoming holistic review, the European Commission should also emphasise the EU's commitment to the global rules-based order and its strategic interest in not undermining it. When the Basel Committee last ran its Regulatory Consistency Assessment Programme on risk-based capital requirements in 2012-2014, it found the EU (including at the time the UK) to be materially noncompliant with the initial components of Basel III, while the US, together with Indonesia and South Korea, was found largely compliant, and all other Basel Committee member jurisdictions were compliant.[36] The EU should aim at full compliance with the Basel framework, as the EBA and ECB have repeatedly advocated (e.g. Campa et al 2022).[37]

4.2.3. Other reform prospects

In our view, the two strands of reforms outlined above have priority status and should be enshrined in the European Commission's forthcoming 2026 Report on Banking. In complement to them, the following additional options could be considered separately and on a different timetable.

- Elimination of national gold plating: a lot of the rules that hamper the single market in banking services come from national provisions that are often either obsolete legacies or undue protection

[36] See the Basel Committee's summary table at https://www.bis.org/bcbs/implementation/rcap_jurisdictional.htm.

[37] To clarify, none of the recommendations made here would imply deviations from the Basel framework. Specifically, the introduction of sovereign concentration charges, while not mandatory under Basel III, can easily be designed in line with it. We do not take a firm position here as to the age-old debate on whether the EU should keep imposing Basel requirements to all banks no matter how small, or should introduce a lighter framework for the smaller banks instead. We note, however, that the features of large IPSs justify applying Basel requirements to IPS members, which as noted above represent a majority of LSIs in the euro area (on this point see also Lehmann and Véron, 2021).

of national incumbents or both. Member states should abolish them. The European Commission, in its capacity as guardian of the treaties, might consider more forceful consideration of infringement proceedings in cases where such national rules contradict EU law.

- Accounting harmonisation: as mentioned above, the EU stands out by not imposing a single accounting framework to banks, which occasionally distorts the playing field and undermines transparency in the system. It should consider imposing IFRS for consolidated financial statements of all EU banks, and possibly also a simplified version (IFRS for SMEs) for individual accounts.
- Consumer protection: the harmonisation of banking consumer protection legislation in the EU has taken a backseat during at least the last two decades, given the salience of prudential concerns and despite advances in some limited sub-areas. It should be considered more forcefully by the European Commission in the near future, for the sake of protecting consumers, but also for prudential reasons since the boundary between prudential and conduct-of-business concerns is far from watertight, and as another component of the project of a single banking market. A first step could be an in-depth comparison of the effectiveness of consumer protection regimes in all member states, which can be expected to reveal many unjustified disparities.
- Supervisory practice: two years ago, the SSM published an external assessment of its own Supervisory Review and Evaluation Process (SREP), which it had commissioned from independent international experts (Dahlgren et al, 2023). The SSM has subsequently announced changes in its practice to be implemented in 2026-2027 (Buch, 2025). It could expand the corresponding move towards more risk-based approaches beyond the SREP to other components of its supervisory doctrine. The SSM might also consider targeted alleviation of some regulatory obligations for those banks in smaller member states that are determined as SIs but remain well below the €30 billion asset threshold and are clearly not systemic on a European scale.[38]

  More broadly, the SSM needs constant attention to a fast-evolving risk landscape and to the ever-present risk of bureaucratisation and ossification of its practices, as well as of disconnect between ECB supervisory staff in Frankfurt and their peers in the national competent authorities. To that end, the SSM should proactively maintain efforts on training and human resources, including career mobility opportunities between ECB Banking Supervision and national authorities. The recent announcement of an ECB task force on simplification could provide a suitable vehicle for addressing such concerns.[39]

[38] The SSM Regulation of 2013 mandates that at least three banks in each member state be determined as SI.

[39] See e.g. "ECB's Donnery: Simpler Rules, Not Weaker Ones", *Pan Finance*, 8 May 2025, available at https://panfinance.net/ecbs-donnery-simpler-rules-not-weaker-ones/.

ANNEX

Data annex (section 3.3)

Our sample of EU banks comprises 79 banking groups, with €26 trillion in total assets, thus representing the bulk of the EU's banking system even though some medium-sized institutions are omitted, as are most smaller ones. We use EBA Transparency Exercise data from 2018 onwards, since earlier data was significantly less complete and consistent. The exercise is voluntary in nature, and some banks do not report for specific years. When such interruptions of reporting are temporary, we have filled the corresponding gaps with linear interpolations.

We split the sample in categories defined by total assets held at mid-2024, the most recent point of reporting included in our analysis. The categories are: "megabanks" with more than €1 trillion in group consolidated assets; "other large banks" between €100 billion and €1 trillion; and "medium-size banks" between €30 billion and €100 billion.

In cases of mergers / acquisitions or legal reorganizations during the observation period, we include the successor entity in the sample following the transaction, and the main predecessor entity before it. There are four such cases in the sample: Abanca (change of parent entity within Spain); Atlantic Lux Holding Company in Luxembourg (predecessor: Aareal Bank in Germany); Crelan (predecessor: AXA Bank Belgium); and Citibank Europe plc (predecessor: Citibank Holdings Ireland Ltd).

The sample is detailed as follows, with rank defined by consolidated assets at mid-2024.

Table 3: sample of European banks used for CET1 capital and leverage ratios.

Name	Rank	Country	Group
BNP Paribas	1	FR	Megabanks
Crédit Agricole	2	FR	Megabanks
Santander	3	ES	Megabanks
BPCE	4	FR	Megabanks
Société Générale	5	FR	Megabanks
Deutsche Bank	6	DE	Megabanks
ING	7	NL	Megabanks
Crédit Mutuel	8	FR	Other large banks
UniCredit	9	IT	Other large banks
Intesa Sanpaolo	10	IT	Other large banks
BBVA	11	ES	Other large banks
Rabobank	12	NL	Other large banks
Commerzbank	13	DE	Other large banks
CaixaBank	14	ES	Other large banks
DZ Bank	15	DE	Other large banks
Nordea	16	FI	Other large banks
Danske Bank	17	DK	Other large banks
ABN AMRO	18	NL	Other large banks
LBBW	19	DE	Other large banks
Erste Group	20	AT	Other large banks
KBC	21	BE	Other large banks
SEB	22	SE	Other large banks
La Banque Postale	23	FR	Other large banks
Handelsbanken	24	SE	Other large banks
BayernLB	25	DE	Other large banks
Sabadell	26	ES	Other large banks
Swedbank	27	SE	Other large banks
Nykredit	28	DK	Other large banks
Raiffeisen International	29	AT	Other large banks
Helaba	30	DE	Other large banks
Banco BPM	31	IT	Other large banks
Iccrea Banca	32	IT	Other large banks
Belfius	33	BE	Other large banks
Citibank Europe	34	IE	Other large banks
BPER	35	IT	Other large banks
Allied Irish Banks	36	IE	Other large banks
OP Group	37	FI	Other large banks
Bank of Ireland	38	IE	Other large banks
Monte dei Paschi	39	IT	Other large banks
BNG Bank	40	NL	Other large banks
Bankinter	41	ES	Other large banks
PKO Bank Polski	42	PL	Other large banks

NORD/LB	43	DE	Other large banks
OTP Bank	44	HU	Other large banks
Caixa Geral Depósitos	45	PT	Other large banks
Jyske Bank	46	DK	Other large banks
BCP	47	PT	Medium-size banks
Mediobanca	49	IT	Medium-size banks
Unicaja	50	ES	Medium-size banks
DekaBank	51	DE	Medium-size banks
Eurobank Ergasias	52	GR	Medium-size banks
Piraeus Bank	53	GR	Medium-size banks
Alpha Bank	54	GR	Medium-size banks
National Bank of Greece	55	GR	Medium-size banks
Bank Pekao	56	PL	Medium-size banks
Abanca	57	ES	Medium-size banks
de Volksbank	58	NL	Medium-size banks
RCI Banque	60	FR	Medium-size banks
Kutxabank	61	ES	Medium-size banks
Cajamar	62	ES	Medium-size banks
Landesbank Berlin	63	DE	Medium-size banks
SBAB Bank	64	SE	Medium-size banks
HASPA	65	DE	Medium-size banks
Banca Popolare di Sondrio	66	IT	Medium-size banks
AXA Banque / Crelan	67	BE	Medium-size banks
Credito Emiliano	68	IT	Medium-size banks
Argenta	70	BE	Medium-size banks
BAWAG	71	AT	Medium-size banks
Raiffeisen Oberösterreich	73	AT	Medium-size banks
State Street Europe	74	DE	Medium-size banks
Ibercaja	75	ES	Medium-size banks
PBB	76	DE	Medium-size banks
Aareal Bank	77	DE	Medium-size banks
Novo Banco	78	PT	Medium-size banks
Länsförsäkringar Bank	79	SE	Medium-size banks
Banca Transilvania	80	RO	Medium-size banks
HCB	81	DE	Medium-size banks
BIL	82	LU	Medium-size banks
Volksbanken Verbund	83	AT	Medium-size banks

For US banks, our sample comprises 50 groups with $23 trillion in aggregate assets. We use data available through the FFIEC portal and from the Federal Reserve's FR Y-C reports, starting in 2018 to align with our EU sample's data availability. We defined similar categories as for EU banks based on consolidated assets at mid-2024, namely megabanks above $1 trillion, other large banks between $100 billion and $1 trillion, and medium-size banks between $30 billion and $100 billion.

We treat US mergers and reorganizations similarly as with EU banks. The three such cases are: Truist (predecessor: BB&T Corporation); First Horizon Corporation (predecessor: First Horizon National Corporation); and Webster Financial Corporation (predecessor: Sterling Bancorp). In the latter case of Webster-Sterling merger, there were overlapping observations of the respective entities between the last quarter of 2019 and third quarter of 2020, for which we retain the information for the former. Our treatment is consistent across all observed variables. As with EU banks, we interpolate linearly where there are any reporting gaps.

Table 4: sample of US banks used for CET1 capital and leverage ratios.

Name	Rank	State	Group
JPMorganChase	1	NY	Megabanks
Bank of America	2	NC	Megabanks
Citigroup	3	NY	Megabanks
Wells Fargo	4	CA	Megabanks
Goldman Sachs	5	NY	Megabanks
Morgan Stanley	6	NY	Megabanks
US Bank	7	MN	Other large banks
PNC	8	PA	Other large banks
TD Bank US	9	NJ	Other large banks
BB&T / Truist	10	NC	Other large banks
Capital One	11	VA	Other large banks
Charles Schwab	12	TX	Other large banks
Bank of New York	13	NY	Other large banks
State Street	14	MA	Other large banks
BMO Bank	15	IL	Other large banks
American Express	16	NY	Other large banks
HSBC US	17	NY	Other large banks
Citizens Bank	18	RI	Other large banks
First Citizens Bank	19	NC	Other large banks
Fifth Third Bank	20	OH	Other large banks
UBS Americas	21	NY	Other large banks
M&T Bank	22	NY	Other large banks
Huntington	23	OH	Other large banks
Barclays US	24	NY	Other large banks
Ally Financial	25	MI	Other large banks
KeyBank	26	OH	Other large banks
RBC US	27	DE	Other large banks
Santander US	28	MA	Other large banks
Northern Trust	29	IL	Other large banks
Regions	30	AL	Other large banks
Discover	31	IL	Other large banks
Synchrony	32	CT	Other large banks
NY Cty Bank / Flagstar	33	NY	Other large banks
Deutsche Bank US	34	NY	Other large banks
First Horizon	35	TN	Medium-size banks
Mizuho Americas	36	NY	Medium-size banks
Raymond James	37	FL	Medium-size banks
Comerica	38	TX	Medium-size banks
Sterling / Webster Bank	39	CT	Medium-size banks
Popular	40	PR	Medium-size banks
East West Bank	41	CA	Medium-size banks
CIBC US	42	IL	Medium-size banks
BNP Paribas US	43	NY	Medium-size banks
Valley Bank	44	NJ	Medium-size banks
Synovus	45	GA	Medium-size banks
BOK Financial	46	OK	Medium-size banks
Frost Bank	47	TX	Medium-size banks
First National Bank	48	PA	Medium-size banks
Associated Bank	49	WI	Medium-size banks
BankUnited	50	FL	Medium-size banks