

# Emerging Issues in Banking

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Final Accepted Manuscript

Claudia Girardone and Ornella Ricci (2023), "Emerging Issues in Banking", *Review of Corporate Finance*: Vol. 3: No. 3, pp 245-273. <http://dx.doi.org/10.1561/114.00000041>

## Abstract

Research in banking and finance is being profoundly shaped by recent crises and events. This paper offers a synopsis of the trends in global uncertainty over the past twenty years and provides a review of the most recent literature for each of the emerging topics in banking covered in the six studies that are included in our *Review of Corporate Finance* Special Issue. Our main findings suggest that the challenging scenarios posed by new geopolitics, high uncertainty and rising inflation will provide new research opportunities on a variety of relevant themes, from how to sustain bank performance and resilience to the need to identify the bank business models of the future. The paper also emphasises how, going forward, more research is needed on the disruptive role and risks posed by FinTechs and on the critical and unique role of banks in the transition to green finance.

**Keywords:** Uncertainty; Crises; Bank Performance; Bank Business Models; COVID-19.

**JEL Classification:** G01; G21; L21; L25.



## **1. Introduction**

The environment in which firms and banks operate has changed dramatically over recent years. Economic shocks caused by the 2007-08 global financial crisis (henceforth GFC), the COVID-19 outbreak, natural disasters and cyber incidents have exposed vulnerabilities and created new challenges. In addition, the Russian invasion of Ukraine in 2022 has significantly impacted energy and food markets at a time when the effects of the pandemic were still widespread (see Cumming, 2022 on the interdisciplinary implications of the Russia-Ukraine crisis).

Research and policy in banking and finance are being profoundly shaped by these shocks as uncertainty and instability are exceptionally high. A stronger emphasis has been placed on the importance of financial stability, risk and crisis management, and the role of monetary authorities and governments in the financial system. Recently central banks, including the Federal Reserve and the European Central Bank (ECB), have taken steps to normalise the monetary policy stance (Wyplosz, 2022). Concerns are emerging on the impact of these policies on government debt as more spending is needed on health, inequalities, global warming and defence.

At the same time, several important trends have emerged that could open new opportunities to both financial and non-financial firms. These include the increased use of technology and data analytics, and an enhanced commitment to environmental, social and governance (ESG) goals. Climate change in particular is affecting the sociological, geopolitical and financial dynamics of our time. Beyond the strict targets set for each country at an international level, banking and finance play a crucial role. The 2015 Paris Agreement (article 2) expresses its goal of ‘making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development’. However, several observers

(e.g., FT, 2022<sup>1</sup>) have highlighted that the ongoing situation in Ukraine may slow down the ecological transition.

For banks, consolidation and restructuring are expected to play an important role to help them regain their competitiveness and profitability in the new scenario of rising interest rates. New business models are expected to emerge as contractionary monetary policies are being implemented to alleviate inflationary pressures. This will increase banks' costs and may induce banks to resort to wholesale funding to maintain their margins (Enria, 2022). In this context, those institutions that will develop viable business models will be those that make the most of digitalisation and of the green transition and that are expected to survive in the market (af Jochnick, 2022).

However, progress might crucially depend on political and institutional factors. In addition, in this new post-Covid world, regulatory and supervisory authorities must face many challenges to guarantee a level playing field in banking that also provides smooth financing for firms, especially small businesses. There has also been a renewed focus on diversity, equality and inclusion in banking and finance (Cumming et al. 2015; Girardone et al. 2021; Falconieri and Akter, 2023).

This Special Issue of the Review of Corporate Finance presents six papers relevant to emerging topics in banking. Section 2 focuses on the uncertainty that characterises the past twenty years and provides considerations on the directions of future research in banking and finance. Section 3 presents a summary of recent academic research streams to which this Special Issue contributes. Section 4 concludes and provides avenues for future research in the area of banking.

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<sup>1</sup> FT (2022) "Will the Ukraine war derail the green energy transition? March 2022.

## 2. Research in banking and corporate finance in an uncertain world

The decade prior to the 2007-08 sub-prime crisis was one of relative stability and growth, however serious risks had been building up in the global financial system. Asset prices soaring and excessive private sector borrowing could have been seen as warning signs. Limitations were exposed in the prudential regulatory framework that relied on the use of large banks' internal risk models (Adrian, 2018). Since then, the global economy has never got back to pre-crisis levels and the environment has become even more unpredictable, as other negative exogenous shocks have impacted banks, firms and markets. In addition to the 2012 euro sovereign debt crisis and the political risks in Greece that followed, five other 'uncertainty shocks' can be identified (Bloom et al., 2022): Brexit, the US presidential election, China-US trade tensions, the COVID-19 pandemic and more recently the Russian invasion of Ukraine. Figure 1 illustrates how these shocks were also accompanied by episodes of substantial damages derived from natural disasters (solid area). It also shows how rapidly the levels of global economic policy uncertainty, climate policy uncertainty and geo-political risks, are currently growing.<sup>2</sup>

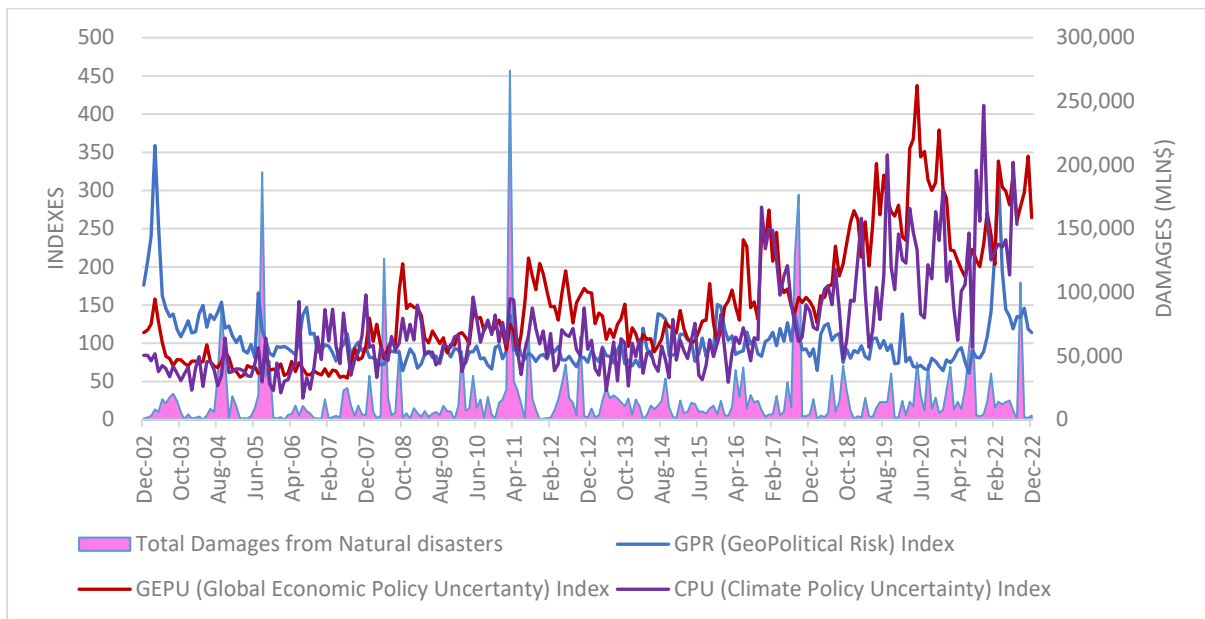
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<sup>2</sup> The Caldara and Iacoviello GPR index reflects automated text-search results of the electronic archives of 10 newspapers: Chicago Tribune, the Daily Telegraph, Financial Times, The Globe and Mail, The Guardian, the Los Angeles Times, The New York Times, USA Today, The Wall Street Journal, and The Washington Post. Caldara and Iacoviello calculate the index by counting the number of articles related to adverse geopolitical events in each newspaper for each month (as a share of the total number of news articles). The GEPU Index is a GDP-weighted average of national EPU indices for 21 countries. Each national EPU index reflects the relative frequency of own-country newspaper articles that contain a trio of terms pertaining to the economy, uncertainty and policy-related matters. We consider the version with the PPP-Adjusted GDP.

The Climate Policy Uncertainty index is based on articles in eight leading US newspapers containing the terms {"uncertainty" or "uncertain"} and {"carbon dioxide" or "climate" or "climate risk" or "greenhouse gas emissions" or "greenhouse" or "CO2" or "emissions" or "global warming" or "climate change" or "green energy" or "renewable energy" or "environmental"} and {"regulation" or "legislation" or "White House" or "Congress" or "EPA" or "law" or "policy"} (including variants such as "uncertainties", "regulatory", "policies", etc.). The eight newspapers are: Boston Globe, Chicago Tribune, Los Angeles Times, Miami Herald, New York Times, Tampa Bay Times, USA Today and the Wall Street Journal.

The EM-DAT Database of the CRED (Centre for Research on the Epidemiology of Disasters) collect data on natural disasters at the global level. For a disaster to be entered into the database at least one of the following criteria must be fulfilled: Ten (10) or more people reported killed; Hundred (100) or more people reported affected; Declaration of a state of emergency; Call for international assistance.

**Figure 1. Uncertainty shocks, risks and damages from natural disasters in the last 20 years**

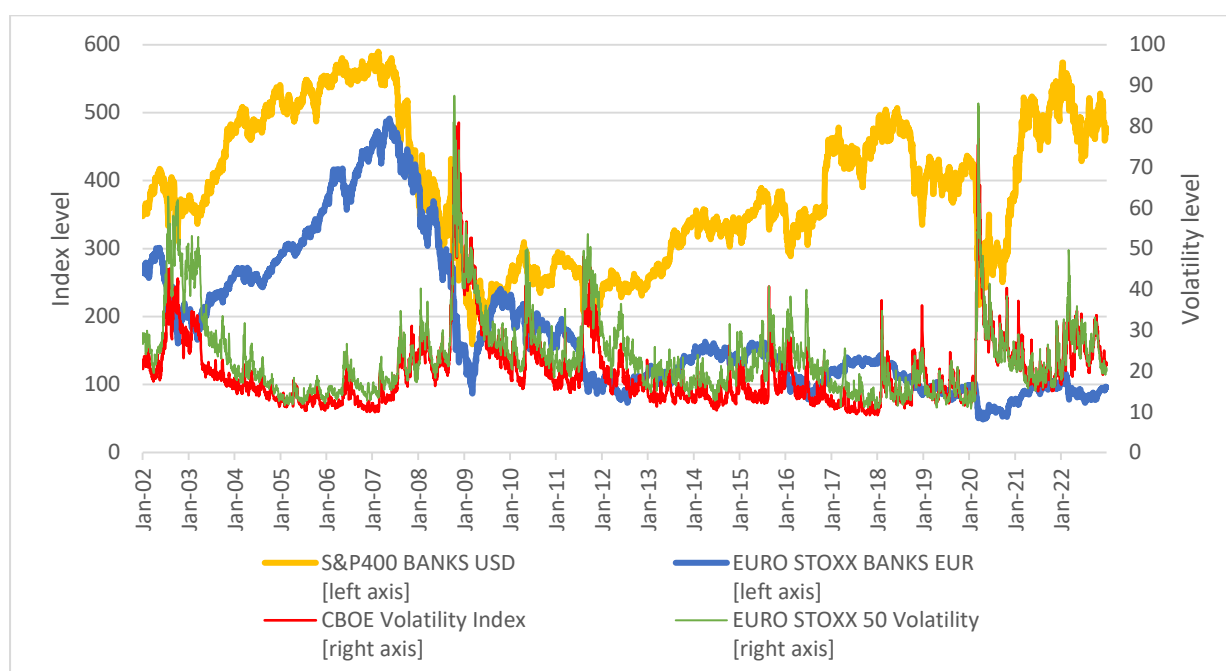


*Sources:* Total Damages from Natural Disasters: Data downloaded from [www.emdat.be](http://www.emdat.be). GPR Index: Data downloaded from [www.matteoiacoviello.com/gpr.htm](http://www.matteoiacoviello.com/gpr.htm). GEPU and CPU Indexes: Data downloaded from [www.policyuncertainty.com](http://www.policyuncertainty.com). All website accessed on February 2023.

*Notes:* Monthly data. For Natural Disasters we consider the following categories (consistently with Fiordelisi et al., 2023): Drought, Earthquake, Extreme temperature, Flood, Landslide, Mass movement (dry), Storm, Volcanic activity, Wildfire.

Rising uncertainty affects the economy through multiple channels, as households and firms defer spending and investments, and financial costs increase due to greater risk. Figure 2 shows how the US banking sector index has recovered to pre-GFC levels despite the pandemic, while the European index still lags behind. This is not only due to the stronger rebound of US stock markets after the pandemic: the underperformance of European banks has been going on for several years after the GFC. This is consistent with the observation of Carletti et al. (2020) that European banks had to face the sovereign debt crisis of 2011-2013, very high levels of non-performing loans (NPLs), more austere fiscal policies and a more fragmented market structure with regulatory, supervisory, financial law and political obstacles to cross-border operations.

**Figure 2 Banking indexes and volatility in equity markets in the last 20 years**



Sources: CBOE Volatility Index (VIX): Data downloaded from [https://www.cboe.com/tradable\\_products/vix/vix\\_historical\\_data/](https://www.cboe.com/tradable_products/vix/vix_historical_data/); EURO STOXX 50 Volatility (VSTOXX): Data downloaded from <https://www.stoxx.com/data-index-details?symbol=V2TX>; S&P400 Banks and EURO STOXX Banks: Datastream

### 3. Current and emerging research in banking and finance

#### 3.1 Crises, bank lending and access to finance

One of the main functions of banks is to allocate credit to firms and households, and by doing so they help contributing to economic growth. In times of crisis, bank lending may come under serious challenge when, for example, monetary and supervisory authorities reduce the base rates and increase capital requirements, or if banks are expected to channel government assistance measures to firms. In such context, price and quantity credit rationing of otherwise creditworthy borrowers may occur. Berger et al. (2023, this issue) investigates the severity of both types of rationing on private vs public firms controlling for loans made by foreign vs domestic banks. Using a sample of 50 countries and over 18,000 bank loans made to more than

10,000 firms, their evidence shows that publicly listed borrowers are rationed more by prices or interest rates, whereas privately held firms appear to be rationed more by the number of loans. The authors also find significant differences between foreign and domestic banks and between US and non-US loans.

During the COVID-19 crisis, banks have been under unprecedented pressure, as loan demand suddenly soared, and they had to adapt quickly to help ensure a smooth channelling of funds to firms and households. This has proved particularly difficult when State aid programmes and credit moratoria were introduced (ECB, 2020). In a recent international study, Çolak and Öztekin (2021) use a sample of 125 countries to investigate the effect of the pandemic outbreak on global bank lending. Using a difference-in-difference methodology the authors find that bank lending is weaker in countries that are more affected by the health crisis and that this effect depends on a variety of bank and country- specific factors (including for example, financial conditions, and regulatory and institutional environment) as well the way the public health sector responded to the crisis.

In another study, Beck and Keil (2022) combine bank, bank-county and loan-level data from the US banking sector to uncover the effect of the pandemic shock on banks' health and on lending growth. The authors construct a measure of banks' geographic exposure to COVID-19 outbreaks and lockdowns. The main findings suggest an unintended effect of government support as banks more exposed to the pandemic had an increase in bad loans and loss provisions, mostly due to greater risks in the small business lending market driven by government guaranteed loans. Their evidence also shows that banks more affected by the pandemic had lower syndicated loans, both in number and amount, and higher interest spreads.

With a focus on Europe, Dursun-de Neef and Schandlbauer (2021) examine how large banks adjusted their lending to the pandemic. The authors construct a bank-level COVID-19 exposure measure and observe that although banks decreased their loans significantly at the



onset of the pandemic, those with a higher exposure to the COVID-19 outbreak, on average, experienced a significantly lower reduction in their loans. They find that worse capitalised banks decreased their lending less, whereas their better-capitalized counterparts decreased their lending more. In addition, they show that only better-capitalized banks experienced a significantly larger increase in their levels of bad loans. The authors explain this evidence that worse-capitalized banks might have an incentive to issue more loans during contraction times through the zombie lending hypothesis (e.g., Schivardi et al., 2020).

Recent literature provides increasing evidence that the supply of financial services can be improved by new technologies and financial innovation (Fintech) both in normal and crisis times. Fintech lenders (also known as FinTechs) offer core banking services, including consumer and small business loans, mortgages, and corporate financing although, to this date, the credit they provide remains limited relative to that provided by traditional intermediaries (Branzoli and Supino, 2020). In an interesting review paper, Bollaert et al. (2021) finds mixed evidence on the substitution vs. complementarity of fintech lending and traditional bank lending.

However, a recent cross-sectional study by Gopal and Schnabl (2022) suggests that in the aftermath of the 2007-08 financial crisis, the reduction in traditional bank lending to small firms was offset by non-bank lending, mainly provided by finance companies and FinTech lenders. They also find that these latter played an important role in the recovery from the crisis. One of the most recent studies highlighting the ability of FinTechs to reduce disparities in the access to credit also during crises, including the COVID-19 pandemic, is that by Erel and Liebersohn (2022). The authors focus on the response of FinTechs to financial services demand created in the US by the introduction of the Paycheck Protection Program (PPP) in 2020 to support small businesses during the Covid crisis. The authors conclude that substitution

between FinTechs and banks is economically small, implying that Fintech mostly expands, rather than redistributes, the supply of financial services.

Another growing body of literature examines the relationship between ESG (Environmental, Social and Governance) engagement and access to credit and how banks increasingly favour firms that are engaged in more sustainable activities. Using survey data from firms in ten European Union (EU) member states, Zhang (2021) investigates the impact of a firm's environmental performance on bank lending decisions and collateral requirements. His evidence indicates that eco-friendly firms are more likely to receive a line of credit and less likely to be imposed collateral requirements. For collateralized loans, desirable environmental performance seems to be associated with lower collateral to loan value ratio. Similarly, in a US study, Houston and Shan (2022) find that banking relationships promote corporate ESG policies. In addition, they find that banks are more likely to grant credit to borrowers with ESG profiles like their own and positively affect the borrower's subsequent ESG performance. Their influence is more pronounced when banks have significantly better ESG ratings than borrowers and when borrowers are bank dependent. A more recent study (Degryse et al. 2023) investigates how the 'environmental consciousness' (otherwise referred to as 'greenness') of firms and banks is reflected in the pricing of bank credit. Using a large international sample of syndicated loans that covers the period between the financial crisis and the Covid crisis (2011–2019), the authors find that green banks indeed reward firms for being green in the form of cheaper loans, with fewer covenants. The effect, however, is significant only after 2015, that marks the ratification of the Paris Agreement.

Another interesting and related strand of literature focuses on the dynamics between innovation disclosure, patenting and secrecy, as firms' decisions in this context can affect their access to finance and interact with financial sector development by making credit markets more contestable. There is a rich literature in this area as patents normally act as credible signal for

innovation that can be difficult to observe, hence mitigating information asymmetries. Saidi and Žaldokas (2019) study the case of the American Inventor’s Protection Act that made firms’ patent applications public 18 months after filing, rather than when granted. They find that such increased innovation disclosure helps firms switch lenders, resulting in lower cost of debt, and facilitates their access to syndicated-loan and public capital markets.

**Figure 3 – Access to Finance – The most analysed factors impacting access to finance in the recent academic literature**



### **3.2 Diversity in banking structures and models**

After the 2007-08 financial crisis, there has been renewed interest by scholars and policy-makers regarding the diversity in banking structures models and its consequences for financial intermediation and financial stability. Banks’ choice of business models has been found to significantly affect their performance and risk. Recent studies (e.g., Caselli et al., 2021) have highlighted that some banks were hit less severely by the crisis with respect to their competitors thank to their different ownership structure and/or business model. Therefore, identifying appropriately bank business models and related strengths and weaknesses has started attracting

the attention of bank regulators and supervisors (Cernov and Urbano, 2018; IMF, 2022). In the European Union for example, the European Banking Authority (EBA) guidelines on common procedures and methodologies for the Supervisory Review and Evaluation Process (SREP) and supervisory stress testing, devote Title 4 to ‘Business model analysis’, which is now a key element to decide the level of Basel’s Pillar 2 capital requirements and guidance.

One important step in the identification of banks’ business models is to try and standardise them. However, to obtain an objective taxonomy of bank business models, which is readily available and also replicable by other researchers is far from easy and there is not yet full consensus in the academic literature as to the best approach to use (e.g., Flori et al. 2021). A rigorous method often adopted in the literature focuses on quantitative or “structural” approaches using clustering techniques based on balance sheet indicators, as these are representative of the main bank strategic choices in terms of activities and funding strategies. One well-known approach is that followed by Ayadi and co-authors in their *Banking Business Models Monitor* (the last edition was in 2019<sup>3</sup>) using five main indicators (Loans to banks; Customer loans; Trading assets; Debt liabilities; Derivative exposure) and distinguishing among five main business models (Focused retail; Diversified retail (type 1); Diversified retail (type 2), Wholesale, Investment). Following the identification of banks’ business models, the next step is to analyse the relationship between them and several other bank- and market-specific characteristics, with a particular attention for risk taking and implications for the financial stability (see Caselli, 2021, for a comprehensive review).

This RCF Special Issue includes a paper by Ayadi et al. (2023) that employs these methods to identify bank business models in the Middle East and North Africa (MENA) region. The authors not only uncover a range of diverse business models heterogeneously distributed across countries, but they also evaluate business model changes over the period 2010 to 2019 and a

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<sup>3</sup> <https://www.ceps.eu/ceps-publications/banking-business-models-monitor-2019-europe/>

range of determinants. Their evidence suggests high persistence of bank business models in MENA countries and that country-specific characteristics play a crucial role in influencing banks' choices. Interestingly, foreign banks are found to be more likely to engage in asset diversification and less likely to focus on lending than domestic banks.

With the spread of the COVID-19 pandemic, bank business models have been challenged by several threats (see Section 3.4). One of the main opportunities to renew the banking business and its viability is digitalisation and the relationship with new entrants challenging their market share in several financial services (Carletti et al., 2020). The outcome of this revolution is very uncertain with several potential scenarios (BIS, 2018), ranging from a “better bank” (incumbent banks modernise themselves adapting their current business models to retain the customer relationship and core banking services, leveraging new technologies) to a “disintermediated bank” (banks become irrelevant as customers interact directly with more agile platforms).

An increasing number of studies analyse the impact of disruptive technologies on incumbent banks, considering the competitive threat represented by both Bigtech and Fintech, and the different strategic response by large and small-medium banks (e.g., Tanda and Schena, 2019). While for large banks acquiring shareholdings in Fintech and in-house developments are the most common strategic solutions, smaller banks are more likely to rely on partnerships.

As outlined by Carbó-Valverde et al. (2021), the relationship between incumbent banks and Fintech appears to be shifting rapidly from direct competition to collaboration. On one hand, banks could benefit from a more agile approach and technological background; and on the other, replacing banks is certainly not an easy task despite the significant technological competitive advantage. So future research in this area should focus on exploring opportunities for potential synergies and co-operation between banks and FinTechs. Another avenue for future research could look at alternative ways to conceptualise and classify business models to

reflect more than what has been defined as the ‘structural’ business of banks as derived from clustering approaches. A recent study by Hanafizadeh and Marjaie (2021) for example, is an interesting example on how we might need to rethink the business model *concept* for modern banks extending it to beyond banks’ balance sheets, to include intangible resources such as maturity of processes, human resource expertise, dynamic capabilities, or expert knowledge and communications skills.

### **3.3 Bank profitability and dividend restrictions**

In the aftermath of the GFC, the pressure on bank profitability has been so severe to attract much attention by the supervisors, especially in Europe, where the recovery was slower than in the US and profitability remained far from pre-crisis levels for much longer. In 2016, the European banking supervision launched a thematic review to assess the profitability drivers and business models of the significant institutions (ECB, 2018). The main conclusions were that bank business models were quite heterogeneous, and that cost reduction was not the only possible solution for profit recovery: while weaker banks were trying to reduce their costs and Non-Performing Loans (NPLs), better performers tended to focus on growth. In this context, a pivotal role was played by strong risk management and strategic steering abilities, and digitalisation appeared as a key priority for most institutions.

One may find it surprising that profitability and business models are a priority for supervision. However, as clarified by Enria (2021a): “Supervisors are neither bankers nor consultants. It is not our job to make decisions about banks’ business model strategies, corporate structures, business lines or risk appetite. Why then, do we venture into discussing the finer details of the quest for profitability? Banks’ profitability is a key driver of capital strength, financial stability and resilient financial intermediation. First, organic profits are the first line of defence against shocks to the economy. Second, banks’ ability to raise capital when

needed depends on their profitability. And third, unsustainable business strategies, such as gambling for resurrection or unhealthy pricing competition among banks, lead to an altogether riskier banking sector, threatening financial stability”.

With the spread of the COVID-19 pandemic, supervisors began imposing restrictions on banks’ capital distributions through dividends, share repurchases and bonuses, with differing degrees of intensity across countries (for a detailed review of initiatives in Europe, UK and the US in several phases of the crisis, see Sciarrone Alibrandi and Frigeni, 2021). The aim was to preserve banking stability and to bolster lending to sustain the real economy. Limits to capital distributions were mainly driven by fostering the allocation of as many resources as possible to lending activities, to ensure banks could keep performing their core intermediation function during the economic crisis. As outlined by some observers (Sciarrone Alibrandi and Frigeni, 2021), this is consistent with the choice not to treat banks differently based on their capital position and require all of them to suspend any distribution of equity to shareholders.

Svoronos and Vrbaski (2021) observe that capital distribution restrictions were a natural complement to the relaxation of capital requirements, so that banks could direct resources to absorbing losses and maintaining lending levels, while at the same time contributing to a more socially acceptable sharing of the overall costs of the pandemic. With some differences across countries, these measures were designed independently from the capital strength of banks, to avoid stigmatising single banks as being too weak to pay dividends. This is consistent with Guntay et al. (2017)’s theoretical model, showing that the optimal level of regulatory strictness on dividend distributions increases as depositors become more run-prone: “the more fragile the banking system, the more valuable it will be for regulators to withhold information about individual banks’ health through non-informative, broad-based dividend restrictions”. On the other hand, consistently with the signalling theory, dividend restrictions may exacerbate runs at restricted banks and induce inefficient choices for unrestricted banks: when only

undercapitalized banks are restricted from paying dividends, unrestricted banks are incentivized to pay a dividend – inefficiently for many – to distinguish themselves from the weak ones.

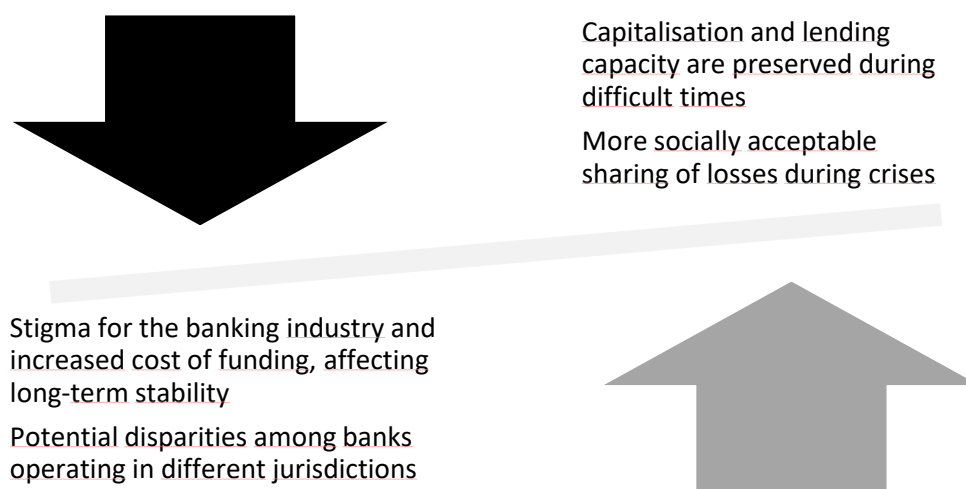
More generally, the academic literature has provided some support to the idea that banks' dividends should be regulated. Hardy (2021) shows that dividend restrictions during the pandemic had a large effect, especially in Europe, where dividends paid during 2020 were 57% lower than in 2019, against a reduction of 26% in China and 25% in the US. The announcement of dividend restrictions was generally followed by a decrease in both bank stock prices and Credit Default Swaps (CDS) spreads. Furthermore, restrictions were effective in preserving capitalization and also in favouring lending. Saunders and Wilson (2020) have analysed the issue adopting an historical perspective, examining dividend decisions in a sample of central-reserve-city banks during from the Great Depression to 1973, finding that a long period of depressed and relatively constant dividends significantly contributed to the stability of the US banking system in the post-depression era.

There are also some relevant negative effects related to these measures. Gual (2021) observes that dividend restrictions stigmatise the whole banking industry with respect to other industries that compete for funding in the stock market, making more costly the access to funding. Banking is a special sector and there is the need to protect depositors and other creditors, which can also end in restrictions on capital distribution, but in the framework of prudential regulation and with limits and conditions directly linked to the specific bank situation. At the same time, since the bank activity is based on a joint stock company model, blanket limitations to capital distribution should remain exceptional, and a general wide discretionary supervisory power in this sense may hinder the ability of banks to raise capital and be detrimental for their stability. The most solvent banks may be the more penalised from blanket restrictions not considering individual situations. Furthermore, there is the possibility



of discrimination among banks based in different jurisdictions, applying different restrictions. As observed by Enria (2021b) imposing binding restrictions on distributions might signal that such restrictions could occur more frequently in the future and this might negatively affect the long-term sustainability of institutions and markets, especially if done unilaterally.

**Figure 4 – Bank profitability and dividend distribution – Pros and cons of capital distribution restrictions**



In this Special Issue, Che Johari et al. (2023) investigate whether an increase in regulatory oversight impacts the information content of dividends regarding the level and volatility of future bank profitability, through a certification role. The authors focus their analysis on the 2012 amendment to Regulation Y requiring US large bank holding companies (BHCs) to submit comprehensive annual capital plans, which incorporate forward-looking projections of revenues and losses, and any substantive capital distributions. The authors' main findings suggest that regulatory approval or non-approval of proposed distributions of dividends augments the information concerning the future prospects of bank performance following an announcement of increased /decreased dividends. This means that regulatory oversight may play a positive role in incentivising banks to pay dividends that are based on realistic and

accurate projections of future profitability. However, contrary to prior documented evidence, results do not seem to hold for the signalling content of dividends regarding the volatility of future cash flows. Given the importance of bank profitability for financial stability and the need for more effective regulation and supervision in a rapidly changing financial services sector, more research is certainly needed in this area. Studies that extend to other countries or regions would be interesting and valuable to explore.

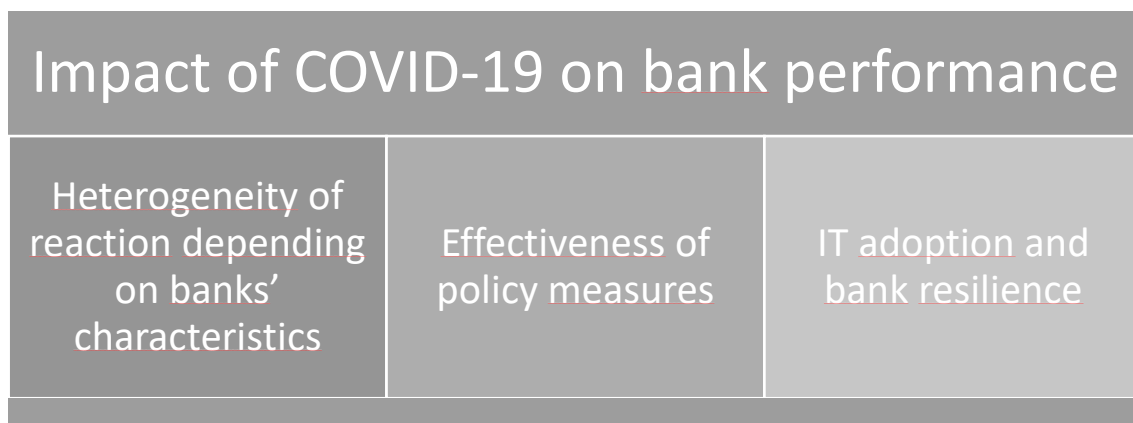
### **3.4 COVID-19 and Bank performance**

The banking sector has been intensely hit by the exogenous shock caused by the COVID-19 pandemic, that triggered a sharp decline in equity and bond prices, similar to the one experienced after the collapse of Lehman Brothers in 2008 (Aldasoro, 2020). Furthermore, banks significantly underperformed firms operating in other sectors. Although it was not an “indiscriminate tsunami”, market participants differentiated across banks based on various factors, including nationality, level of credit risk, and profitability. Differences across banks were visible both during the hardest period of the crisis and the stabilisation phase driven by massive policy measures.

A comprehensive literature review of extant COVID-19 banking literature is provided by Berger and Demirgüç-Kunt (2021), concluding that more research is needed to understand potential fragilities coming from future winding down of government support measures, and, at the same time, potential consequences of increased public expenditures and deficits, especially for some peripheral European countries, notably the GIIPS (Greece, Italy, Ireland, Portugal and Spain). In addition, the authors suggest that there is also room for investigating possible changes in bank market structure and business models (on this last issue, see also Section 3.2) and implications for the development of Fintech and the response to climate change. While the research stream on the consequences of the pandemic on the financial sector

is relatively large and growing very fast, in this section we concentrate on the specific theme of the impact on bank performance. Specifically, we identify several relevant studies that look at the effect of COVID-19 on the banking sector performance and we cluster them as follows: (i) reactions across different banks and impact on their resilience; (ii) the effectiveness of policy measures; and (iii) the link between bank resilience during the pandemic and the level of information technology (IT) adoption.

**Figure 5 – The impact of the COVID-19 pandemic on bank performance– Main research streams**



A first group of papers investigates the heterogeneous reaction across banks, to identify what specific bank features have an impact on bank resilience. Elnahass et al. (2021) build a global database of banks located in 116 countries (1090 banks, first 2019 - second quarter of 2020) to analyse the impact of COVID-19 outbreak on bank financial performance and stability, across several geographical regions, bank sizes, bank ages, bank risk levels, and countries' income classifications (high-income vs middle- and low-income). In addition, the authors provide evidence of the moderating effect played by institutional factors and the type of banking business model employed among alternative banking systems (i.e., Islamic versus conventional).

Other studies tend to concentrate on the role of one specific factor, e.g., the increase in credit risk and, hence, the impact of income diversification through the involvement in non-lending businesses. The paper by Acharya et al. (2021) examines the crash of US bank stock prices, concluding in favour of the existence of a “credit line drawdown channel”. Banks with large ex-ante exposures to undrawn credit lines, as well as large ex-post gross drawdowns, registered a worse performance, which was attenuated by higher capital buffers. The authors build a new measure of balance-sheet liquidity risk (defined as undrawn commitments plus wholesale finance minus cash or cash equivalents, all relative to asset) which appears able to explain both the cross-section and the time-series of bank returns during the pandemic. More in general, there are no doubts that the pandemic leads to a deterioration in asset quality, and a larger amount of loan loss provision to accommodate the rise in credit risk. In a European setting, Simoens and Vander Venet (2022) find that functional (income) diversification can mitigate banks’ stock market decline (during the first months of 2020), acting as a shock absorber more effectively than lending counterparty diversification, while geographical diversification does not register a significant effect.

Consistently with the idea that income diversification is positively related to resilience during the pandemics, other papers measure bank performance using accounting indicators rather than stock returns. Taylor (2022) analyses a sample of European commercial banks, finding that the level of non-interest income is positively related to both return on assets (ROA) and return on equity (ROE), while controlling for bank and country characteristics. Similar results are found by Li et al. (2021) for a sample of US commercial banks, considering not only accounting indicators of performance (ROE and ROA), but also risk, measured by their standard deviation.

A second group of papers concentrates on the effectiveness of policy measures in response to the pandemic. Demir and Danisman (2021) examine both the impact of bank-

specific factors and government policy responses on bank stock returns during the first phase of the COVID-19 pandemic (until May 2020). Results show that banks who are bigger, more capitalized, more diversified and less exposed to non-performing loans are more resilient. At the opposite, higher social and CSR scores have a negative relationship with stock returns, while environmental and governance scores do not show a significant impact. Government responses were globally able to mitigate the adverse effects, especially the economy-related ones, such as income support, debt and contract relief, and fiscal measures.

Demirgüç-Kunt et al. (2021) find that banks recorded a stronger adverse reaction to the pandemic with respect to non-financial firms and non-bank financial institutions, signalling that the market believes that the banking sector is called to absorb at least part of the shock to the corporate sector. The authors examine the impact of a wide range of financial sector policy announcements on a sample of traded banks across 52 countries between May 2, 2018 and May 12, 2020, finding that liquidity support, borrower assistance programs and monetary easing were effective in moderating the impact of the pandemic, with a high heterogeneity across banks. Borrower assistance programs (e.g., government credit lines, interest rate subsidies, and liability guarantees) were able to transfer risk from banks to sovereigns and generated positive stock returns especially for large banks located in developed countries, which have more room for fiscal expansion with respect to developing countries. Liquidity support and monetary easing had a higher impact for smaller banks and banks with less liquid assets. At the opposite, countercyclical prudential measures allowing banks to decrease their capital buffers generated negative stock price reaction, suggesting that investors perceive the downside risks associated with the depletion of reserves.

Degryse and Huylebroek (2022) study the relationship between government support and loan loss provisioning in the US and in the Eurozone (2018Q1-2021Q3), concluding that policy measures were effective in reducing provisioning expenses only in the US. Furthermore,

distinguishing between below-the-line (loan guarantees) and above-the-line (cash transfers) support, the authors find that a significant role was played only by the former. Even though results for the Eurozone should be interpreted with caution because of the small sample size, findings may be explained by the difference in fiscal strategy of the US and most Eurozone countries: e.g., while the US primarily used direct support (above-the-line), many Eurozone countries most relied on liquidity support (below-the-line).

Rather than concentrating on policy measures in response to the COVID crisis, Igan et al. (2021) focus on macroprudential policies implemented in the years prior to the pandemic shock to assess whether they are effective in containing banking risk (using stock returns in the first month of 2020). Credit growth limits, reserve requirements, dynamic provisioning (and, to a lesser extent, concentration limits) are found to be positively correlated to bank stock returns, while capital surcharges on systemically important financial institutions show a negative relationship with market performance, which appears related to concerns about future profits (not default probabilities).

A third group of papers correlate bank resilience during the pandemic to IT (information technology) adoption. Dadoukis et al. (2021) analyses a sample of US banks finding that high IT adopters (i.e., banks above the median of the ratio of tech and communication expenses to total operating expenses for 2018) registered a better performance in terms of market returns, Tobin's q and lending. Kwan et al. (2021) find that banks with better IT experienced a larger shift to digital banking, originated more lending through the Paycheck Protection Program (PPP) and attract more deposits during the pandemic.

In this special issue, Abdallah and Rodriguez-Fernandez add to the literature about the impact of COVID-19 on bank performance considering a large global sample of conventional and Islamic banks. The main contribution of this paper is to also examine the early recovery period (i.e., the first two quarters of 2021) rather than limiting the analysis to the starting phase

of the pandemic, like in most other papers. While Islamic banks experienced higher stock market performance during the first phase of the pandemic, commercial banks showed a better performance both during the pre-COVID-19 pandemic and the early recovery period.

The COVID-19 outbreak and its adverse economic effects come at the end of a decade of significant transformation for the banking industry around the world due to three main factors (Carletti et al. 2020). First, the increased financial regulation and supervision, in particular stricter capital and liquidity requirements, macroprudential instruments and resolution regimes. These rules have contributed to the build-up of a more resilient banking sector, which is very beneficial in the current content. At the same time, the tighter rules have added to the reshuffling of some business activities outside the banking sector towards shadow banks. Second, the massive advent of digitalisation and the emergence of FinTech as well as BigTech companies. While representing an opportunity in terms of more effective processes and new products, as well as enhanced competitiveness of the industry, these developments have also favoured the entry of new competitors in banking-related activities, thus further challenging banks' traditional business models, in particular in payments. The third factor was persistently low interest rates levels, and its effects on bank profitability. A year on, the scenario has changed completely and quite unexpectedly. The Russian invasion of Ukraine has impacted the global economy. Interest rates are rising fast in response to the increase in energy and food prices. This occurred at a time when the effect of the pandemic was yet to fade, and the world is still grappling with a world changed by the Covid crisis. If until last year the expectation was for interest rates to remain low for much longer, at the time of writing, pressure on banks profitability will derive from expectation of rising interest rates that will affect the cost of lending and mortgages.

As outlined by Ahmed et al. (2022), the Russia–Ukraine conflict is unique in nature, since even if centred in Europe it has triggered geopolitical risks and shaken the global

economy, being likely to impair financial intermediation and trade, raising concerns about slower economic growth and faster inflation around the world. Performing an event study around the Russian invasion in February 2022, the authors find significant negative abnormal returns for firms belonging to the STOXX Europe 600 index, with the financial services industry registering the most severe effect across the event windows. The conflict has then reversed the positive market sentiment towards euro area banks in 2021 and bank analysts have revised downward profitability projections, due to exposure to greater corporate and household credit risks as a result of higher commodity prices and disrupted global supply chains. Furthermore, the rise in interest rates may increase bank margins in the short run, but some banks might face challenges in the medium term, due to an increased cost of funding and higher credit risk (ECB, 2022).

### **3.5 The role of political connections and the banking sector**

The value and consequences of political connections is one of the most rapidly growing research area in political economy (Lambert and Volpin, 2018). The topic has gained even more attention after the GFC, leading researchers to focus more on banks, until then less explored than their non-financial firms' peers.

Over the 2000s, most studies relied on macro-level measures, i.e., election years, to represent the political factor and to analyse the influence of political ties. For example, Dinç (2005) provides cross-country evidence, for both developed and developing economies during the 1990s, that government-owned banks increase their lending relative to private banks in election years. Results are robust also controlling for country-specific macroeconomic and institutional factors and bank-specific variables. Still considering election years as a measure of the political factor, banks also result to be less likely to fail in the period leading up to the vote, both in emerging markets (Brown and Dinç, 2005) and in the US (Liu and Ngo, 2014).



For the case of the US, the reduction in the hazard rate doubles in magnitude for banks operating in states where the governor has simultaneous control of the upper and lower houses of the state legislature.

After the 2007-08 GFC, the attention has moved to a micro-view of political connections, considering banks having politicians on their Board of Directors, paying for campaign contributions and/or engaging in lobbying activities. Some recent papers also try to explore alternative channels of political connections. For example, Chu and Zhang (2022) provide evidence that commercial banks use mortgage lending as an alternative channel to seek political influence. Banks approve more applications in the home states of Senate Banking Committee chairs, especially when they face a tight re-election race, with immediate positive effects on profitability and an increase in loan loss provisions in the long run.

A first important group of papers consider the probability to be bailed out, or supported by governments, for connected banks. Not surprisingly, much attention has been paid to the TARP or Troubled Asset Relief Program, created in the US in 2008 to support financial institutions after the turmoil triggered by the subprime mortgage crisis. The idea that political connections can influence the probability of bail out was suggested well before the GFC (though not for the case of banks), in the well-known paper by Faccio et al. (2006). On the specific case of banks, one of the most cited papers is by Duchin and Sosyura (2012), who find that political connections are not related to the decision to apply for TARP funds but are positively associated with the likelihood of application approval, controlling for other financial and fundamental factors. Political connections are measured in several ways, considering connections to a banking regulator, the Treasury, members of the House Financial Services Committee or Congress representatives, also accounting for lobbying expenditures and campaign contributions. Furthermore, the study also provides evidence that politically connected banks receiving TARP support underperform unconnected recipients according to

both stock-based and accounting-based performance measures. This provides evidence in favour of the view that political connections reduce the efficiency of government investment, benefiting connected firms and politicians at public expense. Similar results are found in Blau et al. (2013) focusing on lobbying expenditures during the 5-year prior to the passage of TARP. Results show that politically-connected banks were more likely to receive TARP funds; in addition, they also received a larger amount of TARP funds and earlier than non-connected firms. Even at a long time distance, the TARP continues to attract researchers' attention: a recent paper by Akin et al. (2021) provides statistical evidence that the insider trading behavior of politically connected banks (and politically connected insiders at these banks) is consistent with their having private information in the times surrounding the TARP announcement. More recently, a working paper by Berger et al. (2022) find that banks benefited from partisan political connections in the Paycheck Protection Program (PPP) launched during the COVID crisis.

A second group of papers is similarly inspired by the recent GFC, providing evidence that connected banks have taken more risk than unconnected peers, with a lower probability to be sanctioned for excessive leverage or bad performance. For example, Kostovetsky (2015) concludes that US politically connected banks have higher leverage, stocks volatility and beta with respect to unconnected peers. Prior to the crisis, during the housing bubble, connected banks were more likely to increase their leverage in response to local growth in housing prices. Then, during the crisis, higher leverage was associated with worse performance but political connections with a US Senator on the Banking Committee was associated with slightly higher stock returns and reduced bankruptcy probability. On a global basis, these results are confirmed by e.g., Chen et al. (2018), showing that government banks with politically connected CEOs experienced significantly higher loan default rates and worse operating performance during the

crisis with respect to unconnected peers. However, politically connected CEOs were less likely to be penalized for their poor performance.

These more flexible supervisory and regulatory boundaries are also perceived by depositors, together with an implicit government guarantee, and may lead to less market discipline. Disli et al. (2013), examining a sample of Turkish banks, find that banks with former members of Parliament at the helm experience a reduced depositor discipline, especially if the former politician's party is currently in power. This result is confirmed in Nys et al. (2015) for the case of Indonesia, where connected banks collect deposits at better conditions, with political connections playing a stronger role after the limited guarantee replaced the blanket guarantee.

Consistent findings are shown also taking the point of view of enforcement actions. Lambert (2019), focusing on lobbying expenditures, conclude that politically connected firms are less likely to receive enforcement actions. The author concludes in favour of the "regulatory capture view", predicting that lobbying banks manipulate supervisors seeking for preferential treatment. This is in contrast with the pure informational (or expertise) theory, under which lobbying activities help reducing information asymmetries, leading to a lower probability of interventions because of a better capacity to value the bank. Lobbyists are the experts who provide superior information to regulators and supervisors, guiding their decision-making process and allowing them to avoid actions impeding the bank's long-term value maximization objective.

The possibility to affect the institutional and regulatory framework through political connections obviously create value for politically connected banks. Recent evidence is provided in the paper by Agoraki et al. (2022), finding that political money contributions generate an advantage in the going-public process and result in a minor underpricing, and then "less money being left on the table". This happens since investors interpret PAC contributions

and lobby expenditures as signals of “superior access to key legislation-producing bodies and [...] less need to signal firm quality via a large first-day return”.

Overall, most studies dealing with banks’ political connections seem to conclude in favour of the “regulatory capture” hypothesis, which is undoubtedly a more negative view of the phenomenon with respect to the alternative information based view. This does not exclude that political connections, other than generating private benefits for banks, can also create some positive effects for the economy as a whole. For example, in a recent work, Cheng et al. (2021) find that politically connected banks are less sensitive to economic uncertainty and tend to maintain a lower loss provision to loan volume ratio. The empirical analysis is based on a sample of commercial banks and savings’ institutions in the US over a 29-year period and measures policy uncertainty using the economic policy uncertainty (EPU) index. This means that political connections can soften the consequences of uncertainty in terms of lending contraction, a particularly important results considering, as outlined by the authors, the growing number of uncertainty-increasing events, such as the Brexit and the trade war between the US and China (and now the conflict in Ukraine).

In this Special Issue, the paper by Papadimitri and Pasiouras (2023) adopts a global perspective and examines the relationship between bank political connectedness and performance at the country level, considering the moderating role of the institutional environment. The measure of political connections is the fraction of banks, at the country level, having a former politician on board and represents an interesting mixture between a macro and micro indicator, being at the country level, but constructed considering what happens inside each bank. Robust evidence indicates a positive relationship between political connections and bank profitability, less valuable in countries with strong institutions (i.e., with a lower level of corruption and higher rule of law and order).

Overall, research on the importance and influence of political connections specifically in the banking sector is growing but the body of evidence remains relatively limited. Most studies tend to focus on non-financial firms, but our review has also shown that most studies tend to rely on different measures of political connections, so comparisons are not straightforward. More generally, lack of data transparency is a major challenge preventing researchers from getting the full picture and affecting the related empirical research. This is an issue that future research needs to address.

### **3.6 Crises and regulatory responses**

Both anecdotal and research evidence indicate that there were a combination of factors and conditions behind the origins and causes of the 2007-08 GFC. These include excessive risk taking, financial innovation, poor governance, inappropriate incentives, and, more generally, a “too relaxed” system of regulation governing banks (Vaillant, 2021). Following Bolton et al. (2019) the regulatory response after the GFC has focused on three main areas:

- 1) increasing the resiliency of financial institutions, through macroprudential regulation, capital and liquidity requirements, improved supervision and stress testing, structural reforms insulating banks from capital market activities and more attention to shadow banking and derivatives markets;
- 2) implementing appropriate resolution procedures for banks in order to protect their critical functions and avoid losses for taxpayers;
- 3) strengthening the corporate governance of financial firms, the regulation of banks’ executive compensation and consumer protection.

The second point was particularly challenging for Europe (see for more details Philippon and Salord, 2017; Berger and Demirguc-Kunt, 2021). In contrast to the US, at the start of the

GFC there were less defined resolution procedures for financial institutions and high cross-country heterogeneity in terms of bankruptcy laws and supervisory procedures, all worsened by the weak fiscal position of some governments.

Maddaloni and Scardozzi (2023, this issue) carefully review the introduction of bail-in in Europe and more generally the main features of the Banking Union's second pillar. They also explore some consequences of this regulatory change in terms of banks' liability mix and allocation of bank bonds between professional and retail investors. Their main findings indicate that banks increased their recourse to customer deposits, which are at the end of the bail-in hierarchy and are largely protected by national loan guarantee schemes. This shift generates a lower cost of funding but may imply the risk of significant liquidity shortages in case of large shocks, since customer deposits can be withdrawn without limits and with little notice. Furthermore, while before the introduction of the bail-in regime bank bonds were often targeted to retail investors, after the regulatory change they are mostly bought by professional investors, often other banks, which is an improvement from a customer protection point of view but leads to an increased risk of contagion in the financial sector.

After several years from its introduction, the bail-in regime is still attracting the attention of researchers, wondering if it can solve the Too-Big-To-Fail (TBTF) problem and if it may have some unintended consequences. In a very recent theoretical paper, Pandolfi (2022) outlines that both bail-in and bail-out generate time-inconsistency problems. The main problem with bailouts is the weakening of market discipline due to government implicit guarantees; however, this may generate lower costs than bail-in when moral hazard is severe. In this case, bail-in implies a significant increase in banks' funding costs, and a decrease in banks' profits, which can cause a credit crunch and undercut bankers' incentives to monitor their loans. The main conclusion is that "bail-ins should not be thought of as the panacea for the too-big-to-fail

problem and should be used together with and not just in place of the other available resolution mechanisms, including bailouts” (Pandolfi, 2022, p. 1465).

Importantly, private sector involvement via bail-ins maybe insufficient to face systemic crises and funds available for resolution (also considering the backstop from the European Stability Mechanism) are still limited. In this scenario, the EU Banking Union is incomplete since resolution mechanisms must be improved and the European deposit insurance scheme (EDIS) is still far from being realised. As stated in the first assessment of bank resolvability by the Single Resolution Board (SRB), published in 2022, “Developing resolvability is a marathon, not a sprint”. A recent statement of the Eurogroup, an informal body that brings together ministers from the euro area countries, highlights how further progress is needed to allow the banking sector to fully contribute to Europe’s economic resilience and sustainability. Immediate priorities include strengthening the common framework for bank crisis management and national deposit guarantee schemes. In addition, steps have been taken towards enlarging the scope of the resolution to small and medium banks and harmonising insolvency procedures across member states.

Citing the recent geopolitical developments and Russia-Ukraine crisis, the Chair of the (SRB) König emphasised the need to cooperate to drive the financial stability agenda at a time of division and uncertainty (SRB, 2022). The Russia’s invasion of Ukraine in February 2022 has immediately impacted energy and food markets and has made the post COVID-19 recovery of the global economy more difficult. High inflation rates, supply chain disruptions and low economic growth means that uncertainty about the macro environment has reached again record levels, as shown in Figure 1 (Section 2 of this paper). There is no doubt that, like in the cases of the GFC, and the COVID-19 pandemic, the crisis delivered by the Russia-Ukraine

crisis will likely spur new empirical research into financial stability risks as the profitability prospects for banks weakened and global conditions will likely affect asset quality risks.

#### **4. Conclusions**

This collection of six papers is part of a Special Issue on emerging topics in banking. When we published our call for papers in the second half of 2021 the world was a very different place. It was a time for cautious optimism as the world was finally recovering from the COVID-19 crisis that caused the most unprecedented impact on public health and the global economy. Then, on 24 February 2022, Russia began its invasion of Ukraine causing another supply chain shock and pushing up prices especially gas, oil, food and other goods and services. The economic and financial landscape has rapidly shifted due to the highest global inflation in four decades. At the time of writing, central banks are responding by pushing up interest rates, corporate default rates are rising, as is global recession risk. In addition, the world is experiencing new, unexpected banking crises. The case of Silicon Valley Bank (SVB) in the US has been closely followed by that of the giant, and “too big to be saved”, Credit Suisse (cit. Roubini, 2023).<sup>4</sup>

Geopolitics, higher uncertainty and inflationary expectations have the potential to ultimately impact banks’ health and virtually cancel their recovery in profitability that took place after the most acute phase of the COVID-19 pandemic (Fernandez-Bollo, 2022). We expect that this challenging scenario will provide unique opportunities for new research questions, on how to sustain bank performance and resilience and what are the most appropriate, effective and innovative business models that give them a competitive advantage (Hanafizadeh and Marjaie, 2021). New research will be welcome also around other topics

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<sup>4</sup> <https://www.bloomberg.com/news/articles/2023-03-15/nouriel-roubini-credit-suisse-might-be-too-big-to-be-saved#xj4y7vzkg>



discussed in this Special Issue, such as the impact of credit rationing on access to finance, especially as new unregulated non-bank financial intermediaries are rapidly entering the markets; and the need for more transparency and data to better understand the role of political connections and bank behaviour and risk.

Research will also be needed in topics not directly covered in this Special Issue but that are crucial going forward. Even though banks are operating in an increasingly uncertain and complex environment, banks should continue targeting increased digitalisation to remain competitive by lowering the costs of their operations and be better prepared for future challenges. However, these new digital technologies that are disrupting banks' business models through FinTech platforms and big tech players pose new risks potentially system-wide, including cyber-attacks, so more research is needed in this area.

Finally, banks should also ensure that they continue accommodating the surging demand for green finance. This will provide them with new opportunities through at least three main channels (Cardillo et al. 2021): the reallocation of market portfolios via sustainable investment strategies; the direct financing to green companies/projects; and the provision of specialised advisory services. In this context, several observers have highlighted that the Russia-Ukraine crisis may slow down the ecological transition (FT, 2022; Deng et al. 2022). However, fresh research is needed in this area, as there could also be positive effects on the speed of transition in the medium term if countries more dependent on Russian oil and gas are taking the opportunity to build up independent, more sustainable and cleaner energy systems. This would be appropriate and timely as climate change is shaping the sociological, geopolitical and financial dynamics of our time and finance and banking play a critical and significant role in the transition to net zero.

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