Analysis

Financial regulation has proved its worth in the turbulence of recent years

Financial stability | 23 May 2024 | Jukka Vauhkonen, Tuulia Asplund

AUTHORS



Jukka Vauhkonen
Senior Adviser



Tuulia Asplund

The global financial crisis 15 years ago demonstrated that the regulation of financial institutions and markets needed to be reformed and their supervision improved. Extensive reforms resulted in the creation of new regulation and new institutions for maintaining the stability of the financial system. In addition, a new segment of economic policy was introduced: macroprudential policy. Impact assessments show that the reforms have helped reduce the probability of a financial crisis and have promoted economic growth in the long term.



Summary

The global financial crisis revealed serious risks in the financial system. Implementation of the most significant changes in financial sector regulation and supervision following the financial crisis began globally, in Europe and in Finland around ten years ago.

The impact assessments of the regulatory reforms show that the Basel III reforms have a positive effect on economic growth in the long term. The positive effects, comprising a lower probability of financial crises and reduced costs of any crisis that does occur, are greater than the negative effects on economic growth resulting from the higher cost of bank lending. The loss-absorbing capacity of large banks has been strengthened by introducing significantly stricter capital requirements without negative effects on bank lending to households and businesses.

Research findings also show that macroprudential policy can mitigate the risk of excessive credit growth and overheating in the housing market. These have been among the factors behind most of the financial crises in advanced economies in recent decades. Research findings indicate that the adverse economic growth impact from the use of tools limiting mortgage lending and other macroprudential instruments has been small, especially if introduced or tightened in times of normal or above normal growth.

The regulatory reforms introduced since the global financial crisis have been put to the test in recent years as the global economy faced several major shocks over a short period: the COVID-19 pandemic, Russia's war in Ukraine, the surge in inflation and sharp rise in interest rates. Thanks to its strengthened resilience, the international financial system has withstood well the shocks of recent years.

As lessons learned from previous crises start to fade, pressure to deregulate often begins to grow. The regulatory pendulum may benefit individual financial system entities at least briefly, but for the stability of the entire financial system and its task of supporting sustainable economic growth, the swings of the pendulum are harmful.

The fundamental purpose of financial market regulation is to ensure that the financial system is sufficiently robust to intermediate finance to households and businesses under all circumstances. With changes occurring in the financial system's operating environment, it is important that regulation, supervision and policy measures keep up with these.

Financial crisis revealed vulnerability of financial system

The global financial crisis of 2007–2009 revealed serious and global risks and vulnerabilities in the

financial system. Many financial sector entities were highly indebted, had taken large risks and had an insufficient amount of own funds and stable funding relative to the risks. The interconnectedness of financial sector entities had made the financial system vulnerable to financial market contagion, i.e. the spreading of problems between the financial institutions. Inadequate attention had been given to common risk exposures and interconnectedness, for example, and so the financial system imbalances and their effects were not anticipated.[1]

The global financial crisis that started in the financial sector had a significant effect on the real economy, both globally and in Finland. Even though the crisis began in the United States and the Finnish banking sector avoided extensive problems, Finland's economy and its households and businesses suffered significantly from the financial crisis and the long recession that followed. For example, Finland's real gross domestic product (GDP) and employment exceeded the pre-financial crisis levels only some ten years after the start of the recession. The global financial crisis brought to a halt the improvement seen in Finland's public finances since the 1990s recession and banking crisis, and general government debt relative to annual GDP nearly doubled in 2009–2015.

Prior to the financial crisis, the purpose of financial sector regulation and supervision was mainly to contribute to the stability and functioning of individual entities, for example banks. However, the regulation and supervision that were designed to address particularly the increase in financial system entities' common exposures and the risks that spread via interconnectedness turned out to be inadequate. Before the financial crisis, there was also strong confidence in the ability of the financial markets to self-regulate and self-adjust. The monitoring and analysis of systemic risks spreading from the financial sector to the real economy were in their infancy.

The financial crisis demonstrated that financial regulation and supervision had to be improved if the emergence and spreading of problems within and beyond the financial system is to be better prevented in the future. This work was undertaken both globally and in the European Union. The purpose of the regulatory reforms was to reduce the probability of individual financial sector entities becoming distressed and to improve the resilience of the entire financial system. The aim was also to organise the resolution of distressed banks so that in future, resolution would not involve recourse to taxpayer money. One of the objectives of regulation was to prevent banks from ever becoming 'too big to fail'.

Significant reform of banking regulation and a single rulebook for EU banks

The authorities started to close the gaps in the international framework for regulating the capital adequacy of banks immediately after the financial crisis, and in 2010 the Basel Committee on

Banking Supervision introduced a set of reform measures, the Basel III standards. As a result of the new regulations, banks were required to hold a larger amount of high-quality own funds to cover possible risks, such as loan losses, and to be better prepared and with longer term funding to avoid possible liquidity problems.

As a result of the reforms that took place after the financial crisis, common rules were created and some supervisory responsibilities and decision-making powers were transferred from national authorities to the EU level. The Basel III rules were phased in gradually in the European Union, starting on 1 January 2014. Legislation based on the Basel III recommendations was incorporated gradually into the EU's Capital Requirements Regulation (CRR) and the Capital Requirements Directive (CRD).[2,3] These regulations laid the foundations for the EU banking sector's single rulebook, which is maintained by the European Banking Authority (EBA).

In addition to the minimum capital requirements, authorities were given powers to impose additional capital requirements on banks to prevent systemic risks related to the credit cycle, for example, or caused by the structure of the banking system. These so-called capital buffers were part of a new segment of economic policy: macroprudential policy.

The regulation of banks' liquidity positions was enhanced by setting a liquidity coverage ratio (LCR) requirement to ensure that banks survive a period of liquidity stress lasting a maximum of 30 calendar days and a net stable funding ratio (NSFR) requirement to secure banks' funding in the longer term.[4] Based on the lessons from the financial crisis, requirements on reporting and risk management, among other things, were imposed via the Basel III standards and EU and national legislation.

Reform of financial supervision and the resolution of distressed banks

Experiences from the financial crisis also showed the need to reform and enhance the supervision of banks. With the establishment of the EU's banking union, responsibility for the supervision of large euro area banks was transferred to the Single Supervisory Mechanism (SSM) operating in connection with the European Central Bank (ECB). Large banks in the banking union became subject to direct ECB supervision. The supervision of smaller banks remained the responsibility of national authorities, but their supervisory practices were harmonised. The SSM is the first pillar of the EU's banking union.

The second pillar of the banking union is the Single Resolution Mechanism (SRM), the purpose of which is to ensure the orderly resolution of distressed banks. Authorities were granted stronger

powers for the reorganisation of distressed banks, with the costs of resolution being borne primarily by the shareholders and investors.

The creation of the mechanism resulted in the establishment of two new EU institutions: the Single Resolution Board (SRB)[5] and the Single Resolution Fund (SRF). As in the case of banking supervision, the resolution of the large banks in the banking union is the responsibility of the SRB, whereas the resolution and resolution planning of smaller banks is the responsibility of national resolution authorities, including the Financial Stability Authority established in Finland. The build-up of the EU's SRF by collecting contributions from banks started gradually in 2016, and the SRF reached its target level at the end of 2023.

As a result of the reforms, bank resolution regulation required that banks issue an amount of debt instruments eligible for the implementation of bail-in that in a crisis situation can either be used to absorb losses or converted into equity to strengthen a bank's solvency.[6]

Macroprudential policy for prevention of systemic risks

Macroprudential policy refers to measures by the authorities to prevent and mitigate systemic risks that threaten the stability of the financial system.[7] In the EU, macroprudential policy is based on the Capital Requirements Regulation (CRR) and Capital Requirements Directive (CRD), which entered into force in 2014, the national legislation of Member States, and the recommendations issued by the European Systemic Risk Board (ESRB)[8], which was established after the financial crisis. Macroprudential policy is implemented primarily at national level.

As a result of the post-financial crisis regulatory reforms, national macroprudential authorities were established in the EU and decision-making processes and macroprudential tools were created. In Finland, macroprudential decisions are taken by the Board of the Financial Supervisory Authority (FIN-FSA). With the creation of the banking union, the ECB was conferred the role of macroprudential authority, which has the task of assessing the macroprudential measures based on EU legislation that are taken by national authorities, and may, if necessary, tighten the measures. The macroprudential authorities' toolkit includes binding macroprudential instruments based on legislation and softer measures, such as warnings and recommendations.

As well as the capital buffer requirements, which are based on EU legislation[9], national authorities have also actively applied a variety of macroprudential instruments designed for mortgage lending and the housing market. The housing and mortgage markets have significant country-specific characteristics and differences. The extensiveness of the macroprudential toolkit addressing lending for house purchase or the operation of the housing market varies between countries, and

the majority of these instruments are based on national legislation.

The macroprudential policy implemented by EU countries at the national level has thus far focused mainly on banks and the systemic risks related to banks. This is because both the European financial system and the legislation concerning macroprudential policy are bank-centric. However, in recent years macroprudential policy and regulation have focused more strongly on the prevention of risks created in the non-bank financial system.

Regulation of the non-bank financial system has also been reformed

Since the financial crisis, significant changes have been made not only to banking regulation but also to other financial regulation. For example, the regulation[10] of insurance companies' solvency and risk management has been revised. Reforms have also been made in the past decade to the regulation of investment funds, their marketing in the EU and investor protection, and the regulation of alternative investment fund managers(AIFMD)[11].

The regulation of securitisation[12], which played a key role in the emergence of the financial crisis, has also been revised in order that it can be used to promote financial intermediation and support economic growth, while at the same time avoiding the problems that were revealed following the onset of the financial crisis. In the EU, many regulatory initiatives on the non-bank financial markets are related to the capital markets union initiative, the objective of which is to diversify Europe's bank-centric financial system, improve access to financing for companies and investments, and enhance people's investment opportunities (see 'New impetus for the EU's capital markets union' (in Finnish)).[13]

In addition to regulation, the supervision of the non-bank financial system has been improved in recent decades, and the European supervisory authorities – the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA) – were given the task of creating and developing a single rulebook and harmonising supervisory practices.

ⓘ How can the effects of financial regulation and policy measures be

evaluated?

The effects of financial regulatory measures are assessed at the preparatory phase and after entry into force of the relevant legislative texts. The regulatory impact of EU legal acts, for example, is usually reviewed at a certain interval after their entry into force and subsequently at regular intervals. The effects of regulatory and policy changes only become apparent over time, and gaining sufficient evidence of the effects is a prerequisite for analysing the success, relevance and impacts of the measures taken.

The international Financial Stability Board (FSB) has established a framework for the post-implementation evaluation of financial regulatory reforms.[14] The framework distinguishes between three types of evaluation: (1) evaluation of the effectiveness of individual reforms by comparing outcomes with the reform objectives; (2) evaluation of the interaction and coherence among reforms; and (3) evaluation of overall effects. Of these, the last – and most challenging – type of evaluation examines the extent to which a particular reform, individually or in combination with other reforms, has contributed to the broad social objectives of regulation. In the case of financial regulation, these objectives most often relate to the resilience of the financial system and its task of supporting the economy in a sustainable manner.

The comparison of costs and benefits is a key part of any assessment of regulatory and policy measures. However, in evaluating financial regulation in particular, the social benefits – the most important being services provided to the economy by a stable financial system in all economic conditions – are fairly difficult to measure. The social benefits from financial stability also extend over a much longer period than the costs of regulation incurred by private market participants, such as banks.

According to the FSB, the full benefits and costs of regulation can only be ascertained when regulation has been in force for a full financial cycle and during both stressed and normal market conditions. Evaluations of costs and benefits should also consider the potential unintended consequences of regulatory changes, which can be positive or negative.

The FSB points out that evaluations of financial regulatory reforms involve challenges that are similar to those in many other segments of society and the economy, such as

those related to tax or labour market policy. For instance, policy changes are often transmitted through a multitude of channels, and the effects will depend on the behavioural responses and individual reactions of economic agents, such as – in the case of financial regulation – households, banks and other firms. Furthermore, the interactions among regulatory changes and non-regulatory factors, such as monetary policy, are generally complex in the financial markets, and the effects of regulation cannot necessarily be explicitly isolated from coinciding changes taking place in the operating environment. Although the quantity and quality of available data and statistics are constantly improving, not all the information required for the evaluation of the effects is necessarily available.

In the case of financial regulatory reforms, it is also difficult to precisely determine the likely outcomes if the reform had not been implemented. If, for example, there had been no regulatory reforms after the financial crisis, would there have already occurred a further major crisis in the financial system? What would the social costs of such a crisis have been? There are no definite answers to these questions.

Despite these challenges, and in order to overcome them, evaluation of the effects of financial regulation and policy measures is being constantly developed. These evaluations may be qualitative, based on indicators and statistics, or based on partial or general equilibrium analyses. The greater the desired scope and depth of the evaluation, the greater the requirements for the underlying models, and the more likely it is that simplifications and assumptions need to be made. If the evaluation requires significant simplifications or assumptions, the results will be indicative rather than precise descriptions of reality.

What do the evaluations say about the effects of the financial regulatory reforms?

The responsibility for evaluating the effects of international standards lies primarily with the bodies that drafted the standards, such as, in the case of the Basel III reform package, the Basel Committee on Banking Supervision (BCBS). In respect of individual regulatory measures in particular, such evaluations are also carried out by international institutions, national authorities and academic researchers.

In 2021, the BCBS published a comprehensive assessment of the macroeconomic impact of the Basel III reforms, the related channels of transmission, and challenges and limitations associated

with the assessment.[15] In addition to providing a comprehensive literature review, the BCBS used the most advanced economic models and empirical methods to analyse the impact of the Basel III reforms on, for example, long-term economic growth, bank default probability and the costs of financial crises.

A majority of the research literature and most of the BCBS model calculations conclude that the Basel III reforms have a significant positive impact on GDP in the long term: the calculations show a long-run benefit of about 0.6%–1.6% of GDP. Based on the calculations, the positive effects of Basel III on economic growth are greater than the negative effects of higher bank borrowing costs, as the assessment indicates that the reforms reduce the probability of financial crises and the costs of any crises that do occur.

The FSB's evaluations of the effects of other key regulatory reform projects have also yielded mainly positive results. The loss-absorbing capacity of systemically important banks (SIBs) has been strengthened by introducing significantly stricter capital requirements without negative effects on bank lending to households and businesses.[16] The implementation of regulatory projects to promote the security of the derivatives markets initially advanced rapidly, but has slowed in recent years.[17] As for the recommended regulatory measures related to non-bank financial institutions, these have been adopted more slowly, and their effects have been analysed less than the effects of measures in other key reform areas.

Financial stability has also been supported by macroprudential policy, which mainly falls within the remit of national authorities and particularly aims at evening out excessive fluctuations in lending and in the housing market and controlling the loss-absorbing capacity of individual banks and national banking systems with discretionary capital buffer requirements. The effects of macroprudential policy have been analysed extensively in recent years.[18]

Research has found, for example, that macroprudential policy can mitigate the risk of excessive credit growth and overheating in the housing market, which have been among the factors behind most of the major financial crises in advanced economies in recent decades.

Research on financial crises has shown that high household indebtedness or rapid debt accumulation have been linked especially with the most severe banking crises and the deep economic recessions that have often followed.[19] Research findings also show that measures such as limits set on the amount of new credit to applicants by means of a housing loan cap or a debt-to-income cap (DTI cap; a debt-to-income ratio requirement limiting the maximum amount of the applicant's debts relative to income) have been effective in mitigating household indebtedness.[20]

Research findings indicate that the adverse economic growth impact from the use of tools limiting mortgage lending and other macroprudential instruments have been small, especially if introduced or tightened in times of normal or above normal growth. On average, macroprudential policy tightening appears to have had a stronger effect on lending than macroprudential policy loosening.[21]

Domestic studies have found that the faster household debt has grown, the slower future economic growth has been.[22] Based on an as-yet unpublished study conducted at the Bank of Finland, the macroprudential decisions of the Board of the Financial Supervisory Authority (FIN-FSA) on the level of the housing loan cap have succeeded in controlling the supply of mortgages with the highest loan-to-collateral (LTC) values, which is consistent with the objectives of the decisions.

Regulatory reforms have passed real-life stress tests

The regulatory reforms introduced since the global financial crisis have been put to the test in recent years, as the global economy has been hit by several major shocks over a short period: the COVID-19 pandemic, Russia's war in Ukraine, the surge in inflation and sharp rise in interest rates. The collapse of the Swiss bank Credit Suisse and the run on some regional banks in the United States in spring 2023, in turn, caused at least momentary concerns about the possibility of the problems spilling over to the wider financial system.

The international financial system has withstood the shocks of recent years well. The BCBS, among others, has found that the strong resilience of the system is largely due to the tighter capital and liquidity requirements imposed on banks.[23]

The culmination of the COVID-19 pandemic in spring 2020, with people shutting themselves in and movement restrictions being imposed by the authorities, put a particular strain on those businesses selling goods and services requiring face-to-face interaction. Many of these firms saw their sales revenue plummeting, but their running costs only fell over a longer period.

In order to make up for lost income, many companies had to tap into their bank deposits and other liquid assets, and had to borrow from banks to cover their expenses. Corporate lending by Finnish banks also increased sharply in early spring 2020. Banks were nevertheless well able to continue providing credit during the economic crisis, which was the objective of the regulatory reforms. The very expansionary fiscal and monetary policy probably played an even greater role than regulation in ensuring that economies came out of the pandemic-related economic shock with fairly limited damage.

Bank lending capacity was also supported by the decisions of authorities in many countries to temporarily relax and reduce capital requirements in the most severe phases of the pandemic.[24] In Finland, the Board of the FIN-FSA decided to temporarily lower the systemic risk buffer (SyRB) requirement for Finnish banks to 0% in order to strengthen the lending capacity of banks.[25]

Russia's war in Ukraine, which started in spring 2022, has been not only a tragedy for Ukraine and international security, but also a blow to the European and global economy. The rise in energy prices fuelled by the war pushed up inflation worldwide and led to a strong rise in interest rates. The international financial system has largely proven resilient to the financial stability risks stemming from the sharp rise in interest rates. This has been helped by the regulatory and macroprudential policy measures taken during the period of low interest rates, which curbed excessive household indebtedness and mortgage lending in times of favourable borrowing conditions (see What do the evaluations say about the effects of the financial regulatory reforms?).

The measures to tighten liquidity regulation and liquidity risk control helped protect European banks from deposit runs, which had affected the California-based Silicon Valley Bank and some other banks in the United States in spring 2023, and could have spread to Europe. European banks were subject to more stringent liquidity requirements than the failing banks in the United States. Compared with the United States, European banking supervision paid more attention to the interest rate risks in the balance sheet arising from movements in market interest rates.

Regulatory and policy measures must continue to respond to changes in the operating environment and new risks

Implementation of the most significant changes in financial sector regulation and supervision following the financial crisis started some ten years ago, globally, in Europe and in Finland. However, most of the changes entered into force after transition periods spanning several years, and some of the standards – the most important of these being the standards comprising the so-called 'Basel III finalisation' package – have not yet been fully transposed into national law in many jurisdictions. The purpose of Basel III finalisation is to reduce the excessive and groundless variability of risk weighted assets in calculations of banks' capital requirements and thus increase the comparability and reliability of capital ratios.

Banks' improved capital adequacy and liquidity positions and other regulatory and supervisory reforms have increased the resilience of the financial system. However, taking controlled risks and sharing them is part of how the financial system operates, so it is not the intention to even try to make the system completely risk free by regulation or other means. Higher capital requirements

and measures required by regulation increase the costs for banks and other financial intermediaries. International studies show, however, that the overall benefits of higher capital requirements outweigh the costs.

The stability threats and risks to the financial system are monitored and analysed on an ongoing basis. In addition to fairly harmonised international regulation, national legislation and policy measures are also needed. Macroprudential policy, in particular, should be calibrated on the basis of country-specific systemic risks and vulnerabilities. Macroprudential policy can also take into account the national specificities of the housing or mortgage lending markets, for example. Authorities and legislators should respond with active macroprudential measures or legislation if the policy stance or regulation do not coincide with the changed conditions or structures of the financial markets.

In the past, approaches to financial market regulation have sometimes resembled a swinging pendulum: first, a crisis prompted new regulation, but then as the lessons from the crisis start to fade, pressures for deregulation grow. In the United States, regulation stemming from the financial crisis was already eased at the end of the 2010s. The regulatory pendulum may benefit individual financial system entities at least briefly, but for the stability of the entire financial system and its task of supporting sustainable economic growth, the pendulum is detrimental.

The financial system and the broader environment in which it operates are constantly changing. It is the task of authorities to monitor and anticipate these changes and the potential vulnerabilities and risks they may create in the financial system. As knowledge and understanding of the emerging risks grows, legislators must assess whether the risks are significant enough to necessitate updates to existing regulation, new regulation or new policy measures. In recent years, an increasing amount of data and information has become available on, for example, the risks posed by climate change to the stability of the financial system (see Climate risks should be considered in planning macroprudential policy (in Finnish), Climate change is being fought – but what will happen to banks' net interest income? (in Finnish) and What do we know about the impacts of climate change on financial stability?(in Finnish)). Themes such as those related to crypto-assets and cybersecurity have also become very important in recent years (see Instability in crypto-asset markets is a reminder of the risks and underlines the need for regulation).

The fundamental purpose of financial market regulation is to ensure that the financial system is sufficiently robust to intermediate finance to households and businesses under all circumstances. Changes in the financial system and its operating environment require continued vigilance on the part of authorities and legislators to ensure that they can respond to changes and risks in a reasoned, proportionate and timely manner. Regulation and policy measures must keep up with the changes.

Notes

1. See also: Speech by Marja Nykänen, Deputy Governor of the Bank of Finland: 'When the impossible becomes possible - Crisis-related lessons for financial regulation', OP Financial Group Research Foundation's 50th Anniversary theme day 2022, webinar 27 January 2022 (suomenpankki.fi), https://www.suomenpankki.fi/fi/media-ja-julkaisut/puheet-ja-haastattelut/2022/johtokunnan-varapuheenjohtaja-marja-nykanen-kun-mahdottomasta-tulee-mahdollinen---kriisien-opit-rahoitussaantelylle/ (in Finnish). ↑
2. See the Ministry of Finance summary of the capital and liquidity regulation of banks: https://vm.fi/pankkien-vakavaraisuus-ja-maksuvalmius (in Finnish). ↑
3. The provisions of the CRR are directly binding on the EU Member States, whereas the provisions of the CRD must be incorporated into national legislation, which, in the case of banking regulations in Finland, means the Act on Credit Institutions. The EU's CRR is supplemented by Regulatory and Implementing Technical Standards (so-called Level 2 regulation), which are prepared by the EBA and adopted by the European Commission in the form of decisions or regulations, and are also binding on banks. ↑
4. See also Kauko, Karlo: Liquidity regulation makes a comeback, Bank of Finland Bulletin 4/2013 , https://publications.bof.fi/bitstream/handle/10024/51153/172641.pdf?sequence=2&isAllowed=y (in Finnish). ↑
5. Single Resolution Board (SRB) https://european-union.europa.eu/institutions-law-budget/institutions-and-bodies/search-all-eu-institutions-and-bodies/single-resolution-board-srb_en. ↑
6. Minimum requirement for own funds and eligible liabilities (MREL). ↑
7. See e.g. 'EU macroprudential policy lays emphasis on residential mortgage loans and the banking sector's structural risks', Bank of Finland Bulletin 29 May 2017 , https://www.bofbulletin.fi/en/2017/2/eu-macroprudential-policy-lays-emphasis-on-residential-mortgage-loans-and-the-banking-sector-s-structural-risks/. ↑
8. The European Systemic Risk Board is responsible for the macroprudential oversight of the EU financial system, and its task is to prevent and mitigate systemic risk. See the website of the European Systemic Risk Board https://www.esrb.europa.eu/about/html/index.en.html. ↑
9. See Topi, Jukka: Capital buffer requirements included in the macroprudential toolkit are supporting the risk-bearing capacity of banks, Bank of Finland Bulletin, 9 June 2023 , https://www.bofbulletin.fi/en/2017/2/eu-macroprudential-policy-lays-emphasis-on-residential-mortgage-loans-and-the-banking-sector-s-structural-risks/. ↑
10. See the Financial Supervisory Authority's website: Insurance company regulation based on the Solvency II Directive https://www.finanssivalvonta.fi/en/regulation/regulatory-framework/solvency-ii/. ↑
11. See the Financial Supervisory Authority's summary of legislation for alternative investment fund managers https://www.finanssivalvonta.fi/en/financial-market-participants/capital-markets/alternative-investment-fund-managers-AIFMs/regulation/legislation/. ↑
12. See the Financial Supervisory Authority's website: Securitisation https://www.finanssivalvonta.fi/en/regulation/regulatory-framework/securitisation/. ↑

13. See Statement by the ECB Governing Council on advancing the Capital Markets Union,7 March 2024 https://www.ecb.europa.eu/press/pr/date/2024/html/ecb.pr240307~76c2ab2747.en.html. ↑
14. See Framework for Post-Implementation Evaluation of the Effects of the G20 Financial Regulatory Reforms, Financial Stability Board, 3 July 2017, https://www.fsb.org/wp-content/uploads/P030717-4.pdf. ↑
15. See Assessing the impact of Basel III: Evidence from macroeconomic models: literature review and simulations (bis.org). ↑
16. See Evaluation of the Effects of Too-Big-To-Fail Reforms: Final Report (fsb.org). ↑
17. See Promoting Global Financial Stability: 2022 FSB Annual Report - Financial Stability Board. ↑
18. For the most recent literature reviews on the effects of macroprudential policy, see e.g. What Do We Know About the Effects of Macroprudential Policy? - Galati - 2018 - Economica - Wiley Online Library, Macroprudential Policy: What We've Learned, Don't Know, and Need to Do (aeaweb.org) and Effects of Macroprudential Policy: Evidence from Over 6,000 Estimates (imf.org). ↑
19. See e.g. When Credit Bites Back (jstor.org) and Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870-2008 - American Economic Association (aeaweb.org). ↑
20. See e.g. the following meta-analyses combining the results of research literature: Effects of Macroprudential policy: Evidence from Over 6,000 Estimates (imf.org) and Borrower-based macroprudential measures and credit growth: How biased is the existing literature? - Malovaná - Journal of Economic Surveys - Wiley Online Library. ↑
21. See e.g. Macroprudential Policy Effects: Evidence and Open Questions (imf.org). ↑
22. See Quantiles of growth: household debt and growth vulnerabilities in Finland – Bank of Finland's institutional repository (publications.bof.fi). ↑
23. See Early lessons from the Covid-19 pandemic on the Basel reforms (bis.org). ↑
24. See Buffer usability and cyclicality in the Basel framework (bis.org). ↑
25. See Macroprudential decision: FIN-FSA Board lowers credit institutions' capital requirements - 2020 - www.fin-fsa.fi/en. ↑

Keywords

banks, financial system, macroprudential policy, policy evaluation, regulation