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Sustainable Architecture for Finance in Europe

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What are the main differences between the practice of supervising large banks in the UK and in the euro area, and what are the main risks of regulatory divergence?

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IN-DEPTH ANALYSIS

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What are the main differences between the practice of supervising large banks in the UK and in the euro area, and what are the main risks of regulatory divergence?

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What are the main differences between the practice of supervising large banks in the UK and in the euro area, and what are the main risks of regulatory divergence?

Abstract

This in-depth analysis provides evidence on differences in the practice of supervising large banks in the UK and in the euro area. It identifies the diverging institutional architecture (partially supranationalised vs. national oversight) as a pivotal determinant for a higher effectiveness of supervisory decision making in the UK. The ECB is likely to take a more stringent stance in prudential supervision than UK authorities. The setting of risk weights and the design of macroprudential stress test scenarios document this hypothesis.

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LIST OF ABBREVIATIONS

BCBS	Basel Committee on Banking Supervision
bn	billion
BoE	Bank of England
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
EDIS	European Deposit Insurance Scheme
e.g.	exempli gratia
ESAs	European Supervisory Authorities
ESM	European Stability Mechanism
ESRB	European Systemic Risk Board
EU	European Union
EUR	Euro
FCA	Financial Conduct Authority
FED	US Federal Reserve System
FPC	Financial Policy Committee
FSB	Financial Stability Board
GDP	Gross domestic products
i.e.	id est
JST	Joint supervisory teams

NCA	National competent authority
NRA	National resolution authority
PD	Probability of default
PRA	Prudential Regulation Authority
PRC	Prudential Regulation Committee
RWA	Risk-weighted asset
SRB	Single Resolution Board
SREP	Supervisory Review and Evaluation Process
SRF	Single Resolution Fund
SSM	Single Supervisory Mechanism
UK	United Kingdom
US	United States

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EXECUTIVE SUMMARY

The withdrawal of the United Kingdom (UK) from the European Union (EU) has implications for the supervision of large banks. The newly-gained regulatory and supervisory autonomy allows UK regulators and supervisors to retreat from previously adopted common European standards. An incremental divergence in regulatory and supervisory standards can lead to regulatory competition if EU and UK banks can enter the other economy's market for financial services under a regime of mutual recognition of prudential standards. Leaving the level playing field increases the dependency of banks' host economies on the institutions home regulation with regard to financial stability. Although we do not expect a race to the bottom, we currently identify important differences in supervisory practices, partly rooted in fundamentally diverging institutional set-ups.

Diverging institutional architectures: While supervision of large banks in the euro area is partly supranationalised within the Single Supervisory Mechanism (SSM) and involves a multitude of European and national authorities, oversight over UK banks is organised in a single, national agency, the Prudential Regulation Authority (PRA) as a part of the Bank of England (BoE). These differences translate into a more complex governance structure at the European Central Bank (ECB), the lead supervisor in the SSM, as well as a multilayered organisation of Joint Supervisory Teams (JSTs) in the SSM. Although the UK architecture may make the PRA a more effective decision-maker in times of crisis, the euro area complexity is – at least in part – the price for establishing powerful and credible safety nets in the banking union that may help solve future banking crises more efficiently than the UK.

Diverging calibration of capital requirements: Prior research identified that the ECB, in the direct supervision of large banks, takes a tougher stance than National Competent Authorities (NCAs) when it comes to setting risk weights for banks' loan exposures to corporate clients and that banks respond to this approach by seeking to avoid ECB supervision and shifting riskier lending relationships to smaller, nationally supervised institutions. We believe that these insights carry over to the ECB/SSM – PRA/BoE relationship, because UK supervisors as national prudential authorities can be expected to behave like euro area NCAs. We corroborate this hypothesis by partly replicating the empirical analyses conducted in prior research contributions and observe declining risk-weights a large UK banks and unchanged risk-weighs at German and French large banks after the introduction of the SSM.

Diverging stress test assumptions: Macroeconomic stress test scenarios provide further evidence of differences in supervisory approaches between EU and UK authorities. In the 2021 stress test scenarios, projections of real GDP and unemployment rate developments in the EU, the UK and the US differ substantially, depending on the conducting authority. Overall, the BoE takes a significantly less-restrictive stance than EU authorities, but is more or less aligned with predictions in the scenario that underpins 2021 stress testing in the United States (US).

1. REGULATORY COMPETITION IN BANKING REGULATION

KEY FINDINGS

Brexit provides more leeway to UK regulators and supervisors to develop their own prudential standards. This has the potential for regulatory competition between UK and euro area banking regulators. We do not predict a race to the bottom, but observe differences in supervisory practice.

- The partial supranationalisation of the supervision of large banks within the SSM differs significantly from the nationally organised supervision of large banks in the UK. The complex governance structure of direct ECB supervision and the organisation of JSTs gives the UK PRA a competitive advantage in supervisory decision making, particularly in times of crisis. However, euro area banks enjoy the benefit of potent and credible safety nets in the banking union.

- Compared to the ECB, the UK supervisor is likely to take a less restrictive stance in the calibration of capital requirements by setting lower risk weights to exposures. This hypothesis is corroborated by prior empirical research on the supervisory practice of the ECB and NCAs at the inception of the SSM. We find empirical evidence that these results carry over to the ECB – BoE relationship.

- UK authorities also take a less restrictive stance than their EU counterparts in the design of macroeconomic stress test scenarios, but are largely aligned with US prudential supervisors.

The United Kingdom (UK) never participated in the banking union. Therefore, even before Brexit, the European Central Bank (ECB) was not responsible for ensuring the effective and consistent application of the regulatory framework in prudential supervision vis-à-vis UK licensed banks, including large institutions.[1] Instead, UK competent authorities at all times devised their own supervisory approaches and methodologies within the EU common regulatory framework. However, the leeway to pursue divergent approaches has widened considerably after Brexit and now also extends to prudential regulation. The UK is no longer subject to European Union (EU) legislation and therefore can, in principle, implement international soft law standards set e.g. by the Basel Committee on Banking Supervision (BCBS) or the Financial Stability Board (FSB) at its own discretion. Moreover, the integrating role of the European Banking Authority (EBA), which ensured a minimum degree of consistency across EU member states,[2] not only by drafting implementing regulation (Level 2 measures[3]), but also by coordinating

[1] Cf. SSM-Reg, art. 6(1) describing the responsibility of the ECB within the Single Supervisory Mechanism (SSM) as ensuring the “effective and consistent functioning” of banking supervision.

[2] Political economy considerations indicate that the integrative momentum of the EBA should not be overestimated due to the national dominance in its decision-making procedures, see Tröger (2014).

[3] The approach to the regulatory process under the so-called Lamfalussy-architecture seeks to fast-track and partly de-politicise rule-making in EU financial regulation by limiting the traditional co-decision procedure where the European Parliament and Council adopt laws proposed by the Commission to key political decisions in the form of framework acts that only stipulate basic regulatory principles (Level

common supervisory practices in order to advance a "common supervisory culture",[4] does no longer encompass UK competent authorities.

Even before the effective date of Brexit, the UK already announced to conduct a comprehensive review of the regulatory framework for its financial services industry (HM Treasury 2019). This indicates a willingness of UK regulators to explore and, as the case may be, to exploit the additional leeway afforded by Brexit in order to shape the future regulatory framework for banks autonomously and sail away from common EU standards. Similarly, UK supervisory authorities are likely to further develop independent supervisory practices, even in the short run, where the UK regulatory framework will remain largely predetermined by pre-Brexit EU legislation.

Where regulatory frameworks for economic activity, including their public enforcement in supervision, diverge, regulatory arbitrage and competition impend, if the regulated enjoy the freedom to choose the set of rules that governs their activity in a system of mutual recognition. With a view to the banking sector, such a regime is plausible where EU and UK banks can enter the respective markets for financial services under liberal concepts of equivalence[5] and/or unstinting subsidiary requirements. The outcomes under such a pro-competitive choice of law regime can either be described as a race to the bottom or a race to the top where regulators and supervisors either relax or tighten their standards to attract economic agents (for the general theory see for instance Hayek 1978; Weingast 1995). The bleak vision is that choice of law decisions in regulated industries are motivated mainly by firms' desire to reduce compliance costs. From this perspective, socially suboptimal regulatory regimes that do not adequately safeguard financial stability and other public interest concerns dominate competition. The bright perspective highlights that market participants, like investors in bank capital, corporate and retail bank clients, will recognise the fragility of weakly regulated banks, ask higher risk-premiums from them, or refrain from transacting with them altogether, and thereby create an incentive for financial institutions to submit to socially optimal regimes which balance regulatory costs and benefits adequately. Moreover, in light of the uncertainty which supervisory approach is best suited to achieve the regulatory objectives, regulatory competition can also be seen as an instrument to discover optimal solutions with a particular view to banking supervision (Romano 2019).

Although it is still too early to predict the trajectory the UK will ultimately opt for in the regulation and supervision of its large banks, this in-depth analysis provides some evidence on plausible directions. We do so by sketching at the existing differences in the supervisory frameworks that govern the prudential oversight of large financial institutions in the banking union and in the UK (infra 2). The next section looks at the existing empirical evidence that highlights differences in supervisory approaches after the ECB assumed responsibility for the supervision of large euro area banks in the SSM, at a time when the UK was still a member of the EU. In this section, we also provide a brief descriptive analysis that compares observable differences in supervisory practices of UK and euro area supervisors (infra 3). The final part of our in-depth analysis scrutinises an important example of diverging supervisory practices post Brexit. After the financial crisis, stress testing has become a critical supervisory tool to enhance the resilience of banks against adverse shocks and bolster trust among market participants (for

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1). These fundamental principles are subsequently spelled out in more detail and operationalized in technical implementing measures adopted, amended and updated by the Commission with the support of various consultative bodies, like the European Supervisory Authorities (ESAs) or technical expert groups (Level 2).

4 EBA-Reg, art. 8(1)(b) describing the task of the EBA as contributing to the "consistent application of legally binding Union acts, in particular by contributing to a common supervisory culture, ensuring consistent, efficient and effective application of" EU prudential banking regulation. See also EBA-Reg, art. 1(5)(a) mandating the EBA to contribute to "improving the functioning of the internal market, including, in particular, a sound, effective and consistent level of regulation and supervision".

5 For an overview of the existing EU regime see Wymeersch (2017).

a review of the relevant literature see Acharya, Engle, and Pierret (2014)). We compare the macro-scenarios that underpin the 2021 stress tests for UK and euro area/banking union banks and thereby gain important insights on the overall supervisory approach the respective regulators take (infra 4). This tentative evidence allows us to conclude with some observations on plausible risks of regulatory divergence and adequate policy responses (infra 5).

2. SUPERVISION OF LARGE BANKS IN THE BANKING UNION AND THE UK

The overarching difference in the institutional arrangements under which the supervision of large banks is organised in the banking union and in the UK respectively is that the SSM is a system of partial supranationalisation[6] that involves a multitude of authorities both at the European and member state level, while the UK vests one national authority with prudential supervision. This main difference runs like a common thread through each level of the administrative set-up, from the decision-making in the ECB Supervisory Board and the Governing Council to the organisation of joint supervisory teams (JST) that stand in stark contrast to the purely national organization of every aspect of prudential supervision within the UK Prudential Regulation Authority (PRA) as a part of the Bank of England (BoE). This observation even holds for large banks, for which the ECB assumes direct supervisory responsibility within the SSM and national competent authorities (NCAs) only provide support for supranational supervision.[7]

We do not need to describe all the institutional differences between the banking union and UK arrangements in detail for purposes of this in-depth analysis. Instead, we focus our analysis on those differences that likely have implications on supervisory practices and sketch the main features of the institutional set-up in the banking union and the UK in Box 1 and Box 2.

[6] For a discussion of the available organizational models see Ferrarini and Chiarella (2013).

[7] SSM-Reg, art. 6(4). For a detailed analysis of the interplay between the ECB and NCA see Tröger (2014).

Box 1: Institutional set-up of EU banking supervision

EU member states instituted the SSM as the first pillar of the banking union in order to partially supranationalise banking supervision in the euro area as a reaction to the European sovereign debt crisis (Tröger 2019; ECB 2018a). Together with the Single Resolution Mechanism (SRM) that constitutes the second pillar of the banking union and supranationalises bank resolution (ECB 2018b), the SSM aligns incentives in an institutional arrangement where backstops are envisioned at the supranational level (Tröger 2019). Within the SSM, NCAs supervise less significant banks, although the ECB remains responsible for the effective and consistent application of prudential regulation in SSM-participating member states and can not only establish common frameworks and procedures for the execution of supervisory tasks but also assume direct supervisory responsibility to remedy deficiencies (cf. SSM-Reg, art. 6(6) and (5)(b)). The ECB supervises significant banks directly and NCAs provide support, e.g by drafting decisions. Furthermore, the ECB has the power to request any information from NCAs. The ECB's powers include setting Pillar 2 capital requirements, restricting activities, requesting divestment and risk reductions, increasing liquidity requirements, limiting dividend payouts, controlling management structure, etc.. Supervisory powers include the right to make unannounced visits and inspections. Finally, the ECB has the original competence to sanction banks that breached directly applicable prudential regulation, e.g. the prescriptions in the Capital Requirements Regulation (CRR), yet, when banks breach harmonised national law, e.g. requirements implementing the Capital Requirements Directive (CRD IV), the ECB can only require NCAs to open administrative sanctioning proceedings, SSM-Reg., art. 18.

The Supervisory Board represents the internal body of the ECB that is in charge of the execution of its supervisory tasks. However, due to constitutional concerns, ultimate decision-making powers are left to the ECB Governing Council (Lackhoff 2017). The Supervisory Board is comprised of ECB staff (Chair and Vice Chair of the Board and four ECB officials) and representatives from NCAs in the participating member states (euro area member states and closely cooperating member states, currently Bulgaria and Croatia). Decisions within the Supervisory Board are made by a simple majority vote with each Board member having equal voting rights (Wymeersch 2014) which makes for a dominance of NCAs in supervisory decision-making at the European level. Quite importantly, the Supervisory Board only prepares draft supervisory decisions which are ultimately adopted by the ECB Governing Council. Although in the normal course of action, the Council will apply a non-objection procedure to rubber-stamp the proposals of the Supervisory Board, the internal governance arrangement allows for another round of collective decision-making dominated by national central bank representatives.

JSTs conduct the supervision of significant banks on the ground. They are headed by a team leader who is usually an ECB official and also involve both ECB and NCA representatives as sub-coordinators and experts. Along these lines, the composition and internal organisation of each JSTs is tailored to the respective bank that they supervise (ECB 2018a). JSTs use the Supervisory Review and Evaluation Process (SREP) to assess how banks deal with risks, capital and liquidity (ECB 2015). Risks are assessed from both a quantitative perspective (risk level) and from a qualitative perspective (risk control). Both risk perspectives are taken into account in SREP to get to a combined assessment of banks by JSTs through SSM (ECB 2021a).

Box 2: Institutional set-up of UK banking supervision

The PRA, responsible *inter alia* for the prudential regulation and supervision of banks licensed in the UK, is part of the BoE that also serves as the UK's resolution authority. The PRA not only supervises around 1,500 different financial institutions including not only banks, but also UK building societies, credit unions, insurers and major investment firms (BoE 2021a). The PRA is also the micro-prudential regulator. It acts through the Prudential Regulation Committee (PRC) (BoE 2018). The PRC is chaired by the Governor of the BoE and comprises the Deputy Governors for Financial Stability, Markets and Banking, and Prudential Regulation, the Chief Executive of the Financial Conduct Authority (FCA); one member appointed by the Governor with the approval of the Chancellor of the Exchequer; and at least six members appointed by the Chancellor of the Exchequer (BoE 2021b).

In case banks fail to meet prudential requirements, the PRA has the power to impose financial penalties or public censure, and to prohibit individuals from working in the regulated financial services sector (BoE 2021c). The potential impact assessment is the PRA's supervisory approach to predicting whether banks could face financial distress which in turn could adversely impact the stability of the UK financial system. The PRA categorises banks from 1 to 5, reflecting the impact of their failure on financial stability. Consequently, category 1 represents highly significant banks whose failure can have a large impact on the stability of the UK financial system and category 5 represents banks whose failure would not impact on financial stability at all. The PRA's objective is not to prevent any bank failure, but rather to have it under control and to avoid significant disruption to the financial system (ACT 2020). The focus of the PRA supervisory work lies especially on category 1 PRA-authorised firms that have the capacity to cause significant disruption to the UK financial system in case of failure (BoE 2019).

The costs of PRA supervision have risen by 4% for 2020/21 principally because of Brexit; furthermore, the PRA increased its staff from 1,294 to 1,341 for 2021/22 (BoE 2021d).

The first pivotal difference pertains to the governance structure of the respective prudential supervisors. While in the UK decision-making system the PRC is slim and involves only a manageable number of high-level professionals, the ECB Supervisory Board already comprises six ECB executives and 21 NCA representatives, leading to packed plenary sessions involving 27 members. In addition, supervisory decisions need to be formally adopted by the ECB Governing Council, i.e. supervisory decision-making involves another body with 25 members. Although the non-objection procedure makes the extra round-requirement bearable most of the time, it remains obvious that the governance structure of the ECB's supervisory activities may prevent swift decisions where time is of the essence. Moreover, crisis management in the banking union requires extensive intra-agency coordination and information sharing between the ECB, the Single Resolution Board (SRB), the Commission, the Council, NCAs and national resolution authorities (NRAs), while in the UK corrective supervisory action and resolution planning and execution needs to be synchronised only under the roof of the BoE. On the other hand, the supranationalisation of the crisis management regime in the banking union potentially has several advantages. The most important clearly is the establishment of powerful common safety nets for the financial sector, in particular through the Single Resolution Fund (SRF) backed by the European Stability Mechanism (ESM) and – prospectively – the European Deposit Insurance Scheme (EDIS). In addition, diverging national interests will not prevent the efficient resolution of cross-border banks if resolution is centrally coordinated by the SRB in the banking union. The complexities flowing from partial supranationalisation also show in the organization of SSM JSTs that are composed of members from various European and national authorities and see the head rotating frequently. On the one hand, this brings a lot of expertise to the table. On the other hand, however, the composition of JSTs can also make decision-making difficult and require a lot of time and compromises before supervisory decisions are reached and actions can be taken. While we see a trade-off, the effectiveness of supervision could be higher in the UK system since it is definitely easier to reach decisions in a setting where all staff members are and feel responsible to the same authority.

The short history of the SSM, i.e. its short institutional memory, and the high frequency of supervisory rotation in the SSM system, compels supervisors on the ground to rely more on “hard” information (reported data) in their practice simply because “soft” information from past experiences is frequently unavailable. In contrast, the UK has a long history of supervising institutions and the same supervisors – despite changes in the institutional architecture – may have experience with a bank for several years. It is therefore likely that UK supervisors possess superior knowledge of particular asset risks of individual banks, compared to their SSM counterparts. Nevertheless, it is not clear whether this always leads to better outcomes. Close proximity of supervisors and banks can be harmful and the financial crisis of 2007 and 2008 is an example where forbearing NCAs failed to take the right actions vis-à-vis national champions.

In Section 3 of this in-depth analysis we aim to provide some empirical evidence on the implications of these findings on supervisory practice. We build on a paper by Haselmann, Singla, Vig (2020) to study how supervisory practice has changed for large banks located in the euro area following the introduction of the SSM. While the UK has never been part of the SSM, the paper’s findings are helpful for our discussion, because it is reasonable to assume that the UK system of prudential supervision works similar to comparable systems of purely national supervision like the one Haselmann et al. study in their contribution. However, we also present summary statistics on the “strength” of UK and SSM supervision based on the development of RWA/asset valuation between the two systems. This evidence supports our hypothesis.

In Section 4 we further complement our findings and evaluate an interesting case study based on the 2021 stress test. While the UK was part of the EU-wide stress tests until Brexit, we can compare the details of the scenario of the same variable (e.g. EU GDP forecast) between the UK and EBA scenario. This comparison allows us to draw conclusions about the prospective approaches to supervision, in particular the relative strictness of the two systems.

3. EMPIRICAL EVIDENCE OF DIFFERENCES IN SUPERVISORY PRACTICE

In the previous section, we identified several differences between a partially supranationalised supervisory regime, like the SSM, and the purely national prudential oversight of the PRA as part of the BoE in the UK. If we were to identify differences in regulatory practice between the ECB-led euro area and UK supervisors empirically, we would require access to micro-level data from all the supervisory agencies involved. Since we do not have access to such datasets for this in-depth analysis, we extrapolate from recent papers that investigated the consequences that the creation of supranational supervision within the SSM had for supervisory practices (infra 3.1). These studies compare the supervisory practices of different NCAs in the euro area (taking the German supervisor Bundesbank/BaFin as a focal point) and the ECB-led supervision within the SSM. While it is not clear whether the supervision of large banks in the UK works similar to the supervision by euro area NCAs (Bundesbank/BaFin) in every respect, the findings carry over when it comes to assessing general differences between a newly established, supranationalised (i.e. centralized) supervisory system and a relatively well-established, purely national supervisory system. We verify this hypothesis in a second step, in which we use balance sheet data compiled from SNL Financial of UK, French and German banks with total assets beyond EUR 30 bn to provide evidence whether the findings from the previous literature based on a euro area NCA vs. SSM comparison tend to hold for the UK vs. SSM comparison as well (infra 3.2).

3.1 Differences between direct ECB and NCA supervision in the banking union

A recent empirical study by Haselmann, Singla and Vig (2020) provides a detailed assessment of the supervisory practices within the SSM and the German national supervisor. This study bases its metric for the evaluation of supervisory practices on the plausible assumption that setting and monitoring banks' regulatory capital requirements (Pillar 1 and Pillar 2) is the most important supervisory activity. Previous research suggests that banks enjoy discretion when they determine the risk-weights of their assets which constitute the critical determinant of regulatory capital requirements (Behn, Haselmann and Vig (2022), Plosser and Santos (2018), Begley, Purnanandam and Zheng (2017)). A higher risk-weight is directly associated with higher regulatory capital requirements which are calculated as a percentage of risk-weighted assets. Large banks which are directly supervised by the ECB within the SSM generally apply the so-called internal ratings-based approach (IRB approach) which uses internal risk models to determine the risk-weighted assets for a specific exposure. Supervisors play a pivotal role in approving and monitoring these models and also in evaluating the quality of the collateral that banks' typically use to lower risk-weights for specific assets. Here, supervisors can exhibit a more lenient or restrictive stance vis-à-vis the institutions they oversee. Against this background, the authors argue that investigating banks' determination of their risk-weighted assets is a suitable metric to evaluate supervisory practice.

The identification strategy that follows this metric compares the evaluation of loan exposures to corporate borrowers that have a lending relationship with a significant bank directly supervised by the ECB within the SSM as well as with a less-significant bank that remains under direct national supervision within the SSM around the time the first pillar of the banking union was introduced. The idea of the identification that relies on corporates with multiple lenders is that differences in the riskiness of the loans to the same firm should be differentiated out in post and pre periods. Therefore, observed differences in reported risk weights can be attributed to divergent supervisory practices of the supranational and the national supervisor.[8] The reported risk weights of significant banks have increased by about 7 percent following the shift to direct ECB supervision. The reported risk weights of banks under national supervision (i.e. Bundesbank/Bafin) have not changed around the start of the SSM.

Haselmann, Singla and Vig (2020) further analyse the consequences of the differential supervisory treatment for banks' behavior. Given that significant SSM banks have come under more rigid ECB supervision, smaller banks under the more lenient NCA supervision might take over some of the riskier activities. Indeed, the paper finds that banks under tighter ECB supervision reduce their lending to the

8 Potentially, a change in regulatory risk weights could also be driven by a change in loan terms. To rule out that differences in loan terms are responsible for the observed differences in reported risk weights, Haselmann, Singla and Vig (2020) also investigate the underlying parameters used to determine risk weights such as the reported probabilities of default (PDs). Importantly, banks' assessment of a firm's PD is independent from any relationship specific loan terms and, therefore, should be (on average) the same for all lenders. The authors' analysis suggests that differences in the level of reported PDs are responsible for the differences in the risk weights rather than differences in loan terms.

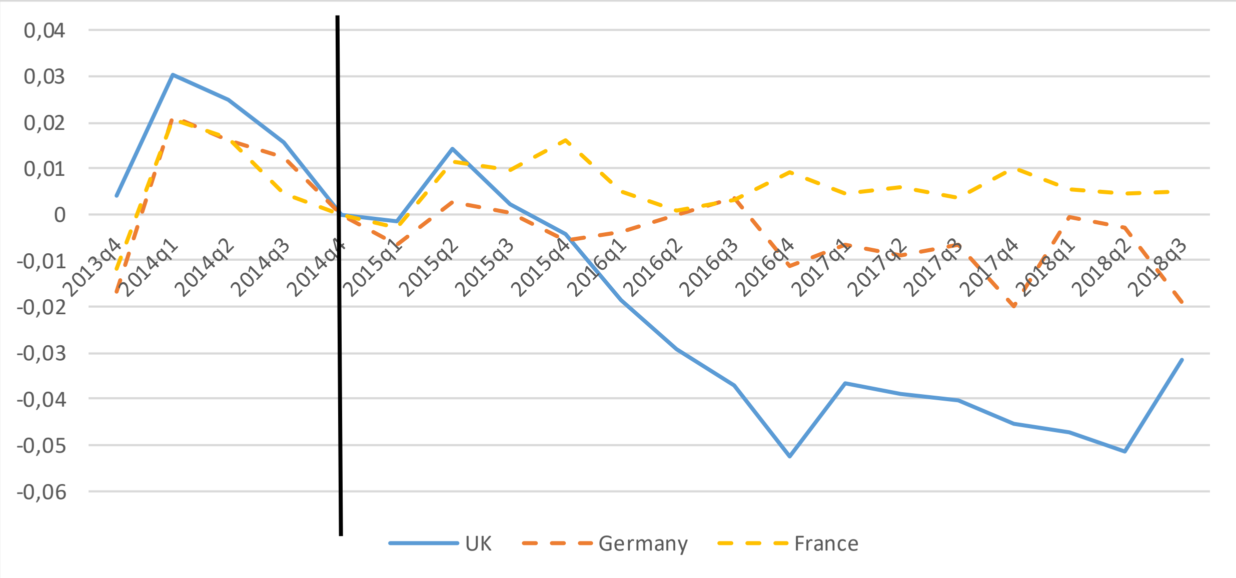
same firm by about 10 percent more than banks under NCA supervision after the SSM became operational. Moreover, banks under Bundesbank/Bafin supervision lend more to riskier firms, which can be explained by SSM banks cutting their lending to these riskier firms as a consequence of tougher supervision. One implication is that riskier lending activities tend to be conducted by smaller banks. This could be a desirable outcome, given that smaller banks can typically be resolved without difficulties in case of distress. However, if smaller institutions systematically take over riskier activities while operating under a less sophisticated risk management system, the overall implications for financial stability remain ambiguous.

Haselmann, Singla and Vig (2020) also find that those banks close to the EUR 30 bn significance-cutoff (cf. SSM-Reg, art. 6(4) subpara. 2 (i)) reduce their lending relatively more than other banks. This result indicates that banks try to "shop" for a more lenient supervisor. These findings are confirmed in a study by Ben-David et al. (2018) who argue that large (significant) euro area banks expected a stricter ECB supervision due to the establishment of the SSM. Therefore, banks closer to the EUR 30 bn significance-threshold shrank their balance sheet to avoid a heavier burden of stricter supervision. These actions have been costly not only for banks who forwent lucrative business as well as for clients that experienced credit rationing. Ben-David et al. (2018) estimate that banks which remained just below the size threshold surrender a substantial fraction of their potential profits to avoid ECB supervision.

3.2 Presumptive differences in ECB/SSM and PRA/BoE supervisory practices

The empirical evidence we referenced so far is based on a comparison of supervisory practices in direct ECB supervision and NCA supervision within the SSM. These findings are relevant for the purpose of this in-depth analysis if the UK supervisor can be expected to behave similarly to euro area NCAs. In general, there is evidence for the United States (US), that more remote (central) supervisors (i.e. in the US prudential authorities on the federal level) operate more stringently in comparison to local supervisors (i.e. state-level authorities) as shown by Agarwal et al. (2014). Our aim here is to provide some direct empirical evidence on this point in the European context where the ECB can be understood as a remote (central) supervisor and the PRA as a local one, assuming that large euro area and UK banks will operate across the respective economies. Since we do not have access to micro-level credit register data from the UK, we can only extend the Haselmann, Singla and Vig (2020) study with a UK vs. ECB/SSM comparison by focusing on bank level data. To do so, we collect bank balance sheet information for large UK, French and German banks around the introduction of the SSM from SNL Financial. We obtain quarterly information on balance sheet figures of all banks whose total assets exceeded EUR 30 bn in 2014. The sample period covers the years 2013 until 2018. We focus on the same metric the original paper applies to evaluate how strict a regulator operates, i.e. the average risk-weight associated with the assets of a bank. In Figure 1 we plot average risk-weighted assets divided by total assets for the UK, German and French banking sector. We scale all three lines to take the value of zero at the start of the SSM (2014q4). We do so to account for potential differences in the level of risk-weights among the different banks. The black horizontal line indicates the start of supranational supervision within the SSM. The graph illustrates an interesting pattern. While in the period before the SSM became operative, average risk-weights at large UK banks were rather higher than those at German and French banks. This pattern changes three quarters after the ECB took over the supervision of the significant French and German banks. From mid-2015, average risk-weights of UK banks have been falling by about 6 percentage points. Risk-weights of large German and French banks remained constant during our observation. Given that the macroeconomic environment has been rather good during this period, we should rather see average risk-weights dropping. Therefore, our findings suggest that UK supervisory practice is more lenient compared to the ECB practice within the SSM. However, it is important to note that this observation is not as robust as the empirical evidence provided by Haselmann, Singla and Vig (2020) which is based on credit register evidence. Their data allows them to control for alternative explanations that do not hinge on differences in banks' treatment by their respective supervisors. The evidence we present here cannot rule out that the observed differences were triggered by differential adjustments in the riskiness of UK bank assets on the one hand and German and French bank assets on the other.

Figure 1: Average risk weights (risk-weighted assets / total assets) for large banks located in the UK, Germany and France over time.



Source: own calculations, bank balance sheet data is taken from SNL Financial.

4. COMPARING THE 2021 MACROPRUDENTIAL STRESS TESTS AS AN INDICATOR FOR DIFFERENCES IN SUPERVISORY PRACTICES

We complement our empirical analysis and present evidence on a further dimension that is indicative of diverging supervisory practices. Although the UK was never a participating member state of the banking union, it took part in the EU-wide stress tests devised by the EBA and the European Systemic Risk Board (ESRB) as a member of the EU since 2009. After Brexit, however, the UK will not participate in the upcoming 2021 EU-wide stress test. Instead, the BoE announced to devise its own macroeconomic scenario and to conduct its stress test autonomously in parallel to the EU exercise. Comparing the details of the two stress test scenarios allows us to collect additional evidence on the differences in supervisory approaches.

On the 9th of January 2021, the EBA launched the 2021 EU-wide stress test, which was deferred by one year due to the COVID-19 pandemic, and released the relevant macroeconomic scenarios devised in cooperation with the ESRB. The adverse scenario for the EU-wide stress test assumes a prolonged COVID-19 induced contraction in a low interest rate environment. The results of the stress test are scheduled to be published on 31st July 2021 (see Box 3 for further details). Similarly, the BoE cancelled the 2020 stress test due to the pandemic and decided to conduct a solvency stress test for their large banks in 2021. The adverse macroeconomic scenario for the UK solvency stress test combines a severe downturn of the economy on top of the economic shock precipitated by the pandemic in 2020.

In this Section, we compare the two macro scenarios that underlie the UK and EU stress tests. More specifically, we scrutinise the evolution of key parameters in the two different adverse scenarios (e.g. development of GDP). We do so in order to understand which of the two scenarios is based on worse assumptions and can thus be read as an indicator of a tougher supervisory stance. To provide a benchmark for this comparison, we also add information on the 2021 US stress test scenario devised by the US Federal Reserve System (FED). Although the EU-wide stress is designed by the EBA and the ESRB and not directly by the ECB/SSM, we believe that there is a close cooperation among the European institutions and an ECB-coordinated voting behavior of SSM-participating member states on critical issues in the EBA Board of Supervisors.[9] Therefore, our comparison allows to draw inference on general differences in supervisory practices between the UK and the euro area.

In Table 1, we present the real GDP paths for the EU, the UK and the US that underlie the different macro scenarios in the respective stress tests. To be more precise, we show the real GDP developments for 2021, 2022 and 2023, as published by the EBA (2021b), the BoE (2021h) under the guidance of the Financial Policy Committee and the PRC, and the Board of Governors of the FED (2021).

Table 1: Comparison of the evolution of EU, UK and US GDP in the 2021 EBA/ESRB, BoE, and FED stress test scenarios.

	EU real GDP path			UK real GDP path			US real GDP path		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
EBA/ESRB	-1.51%	-1.95%	-0.22%	-3.65%	-0.36%	-0.14%	-3.40%	-0.54%	0.20%
BoE	-3.78%	5.89%	3.91%	1.77%	6.42%	3.45%	-4.54%	6.48%	3.85%
FED	-2.35%	0.60%	6.50%	-2.25%	0.50%	6.50%	-3.45%	1.13%	6.70%

Source: EBA (2021b); BoE (2021h); FED (2021).

9 Although the ECB has no formal mandate to represent the SSM participating member states in EBA decision-making, it is likely to coordinate a common position and strongly influence member states' voting behavior in the EBA Board of Supervisors, see Tröger (2014). Moreover, the triple-majority requirement laid in EBA-Reg, art. 44(1) effectively gives SSM-participating member states a veto-right in EBA resolutions.

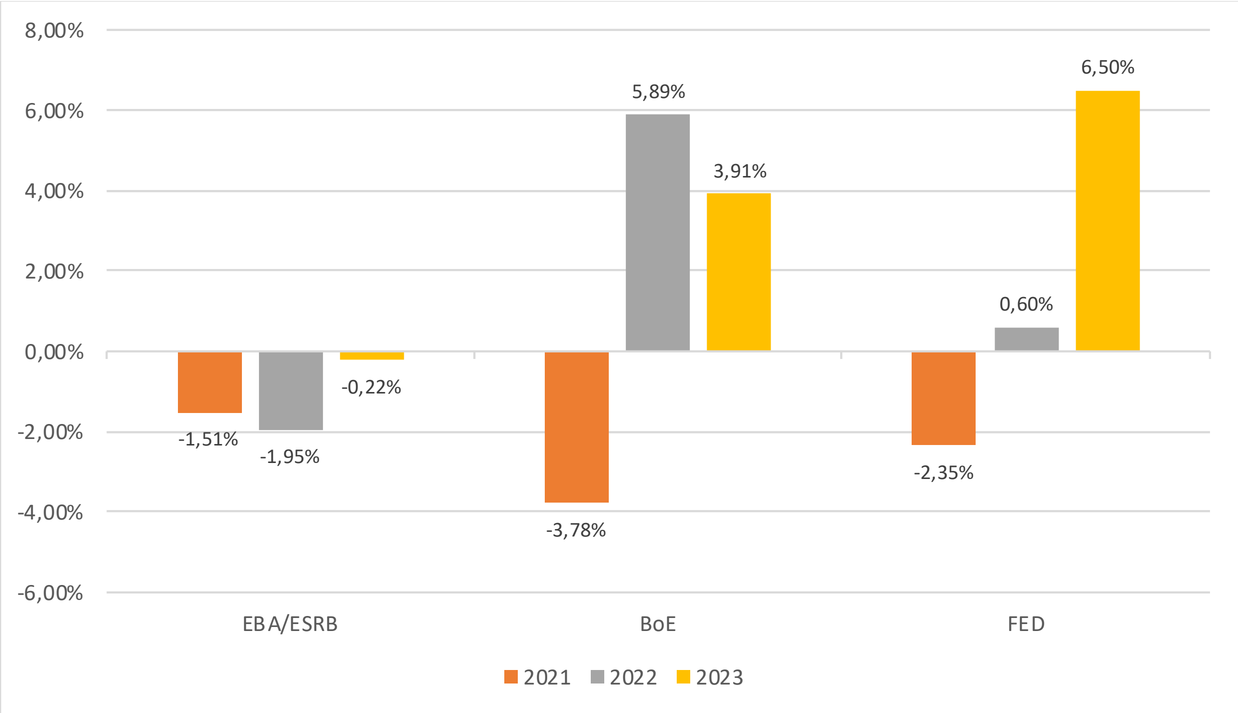
Box 3: Institutional details about the 2021 stress tests in the EU and the UK

The EBA conducts EU-wide stress tests every two years in cooperation with the ECB, the ESRB and the NCAs. The ESRB designs the stress test scenarios and the EBA is in charge of applying these scenarios to banks in the exercises, which are large (significant) banks directly supervised by the ECB (ECB 2021b). The EBA performs these stress tests in a bottom-up fashion, using the methodology and the scenarios developed in cooperation with the ESRB, the ECB and the European Commission (EC) (EBA 2021a). The tests assess how negative macroeconomic scenarios would impact on the solvency of EU banks. They indicate if capital endowments, including buffers accumulated during normal times, are sufficient to cover projected losses and let banks survive during distress. The results of these stress tests are input for the SREP. Currently, 50 banks, out of which 38 are under direct ECB supervision within the SSM, are subject to EU-wide stress testing (EBA 2021b).

The FPC together with the PRC designs the stress testing framework for UK banks. The FPC focusses on macro-prudential risks to the UK British financial system (BoE 2021e) and is hence comparable to the ESRB; the Committee has 13 members in total, 6 from BoE and 5 external ones (BoE 2021f). The stress tests of the PRA aim at measuring the resilience of banks to some negative scenarios that could impend in the future. There are three types of stress tests overseen by the PRA: (1) PRA executed annual simultaneous stress test for the UK's largest banks; (2) own stress tests of banks that are not subject to PRA annual stress testing, based on PRA guidance issued every six months; (3) biannual stress tests testing the resilience of the banking system to shocks that are not connected to the financial cycle (BoE 2021e). The BoE 2021 solvency stress test and guidance have been calibrated and produced by BoE staff, under the guidance of the FPC and the PRC (BoE 2021g).

To graphically illustrate the information provided in Table 1, we compare each individual variable in a separate figure. As a starting point, we plot the real GDP expectations for the EU for the years 2021-2023 as supposed in the three different macro scenarios (see Figure 2). The EBA/ESRB expectations for the EU real GDP are negative for all three years. While the BoE predictions for EU real GDP are even more conservative for 2021, the UK scenario is considerably more favorable for 2022 and 2023. In fact, the UK scenario assumes a fast recovery with positive GDP growth from 2022 onwards. Thus, the UK scenario is clearly more optimistic in its medium-term outlook. When we take the FED scenario as a benchmark, we see that their assumptions for 2021 and 2022 are somewhere in middle between those of the EBA/ESRB and the BoE respectively, but for 2023 the predictions for EU GDP growth are almost twice as optimistic as those in the BoE scenario. Overall, the FED scenario seems to share more similarities with its BoE than its EBA/ESRB equivalent with regard to the predicted GDP development.

Figure 2: Comparison of the evolution of EU GDP in the 2021 EBA/ESRB, BoE, and FED stress test scenarios



Source: EBA (2021b); BoE (2021h); FED (2021).

We observe a similar pattern once we compare the predictions for UK real GDP growth in the three scenarios in Annex Figure 1. Here, the EBA/ESRB scenario assumes a significant negative real GDP growth for 2021 and then a slow recovery and convergence towards zero real GDP growth in the UK. The BoE scenario is quite different. For 2022, the BoE a positive real GDP growth rate of 6.42%, while the EBA/ESRB and FED scenarios assume values close to zero. Even more interesting is the scenario comparison for this variable for the year 2023. While scenario assumptions differ among all three supervisory institutions by a large margin, the EBA/ESRB scenario predicts a slight negative growth rate, the BoE scenario shows a moderately positive one, and the FED scenario even suggests a highly positive growth rate. Again, the EBA/ESRB scenario projects a less favorable development of the UK real GDP for all three years.

Finally, we repeat this exercise for the assumptions on US real GDP developments in the different macro scenarios in Annex Figure 2. Among the three scenarios, the EBA/ESRB predicts the most adverse path for this variable for the years 2022 and 2023.

To sum up, in their projections of real GDP developments in the EU, the UK and the US, the EBA/ESRB macro prudential scenarios are considerably less optimistic from 2022 onwards. While the FED and BoE scenarios are quite similar, the BoE bases its 2021 stress test on average on the most optimistic scenario in this comparison.

In Table 2 and Figure 3 (as well as Annex Figures 3 and 4), we further compare the predictions for the evolution of the unemployment rates of the EU, the UK and the US in the EBA/ESRB and the BoE stress test scenarios. Since we do not find data on unemployment rates in the US stress scenario, we cannot include the FED predictions as a benchmark here.

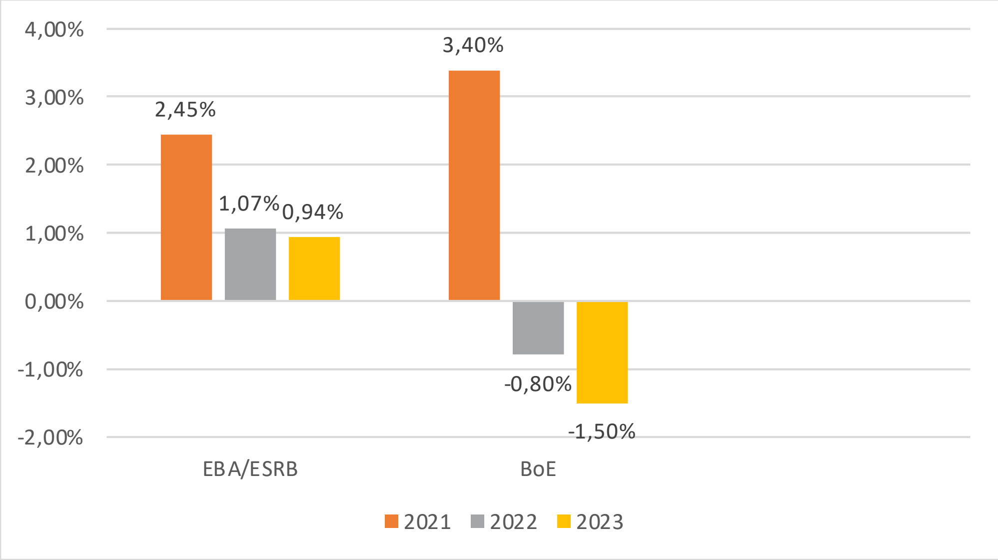
Table 2: Comparison of the evolution of EU, UK and US unemployment rate in the 2021 EBA/ESRB and BoE stress test scenarios

	EU unemployment rate path			UK unemployment rate path			US unemployment rate path		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
EBA/ESRB	2.45%	1.07%	0.94%	2.66%	0.55%	0.31%	0.63%	0.17%	0.14%
BoE	3.40%	-0.80%	-1.50%	5.60%	-1.90%	-3.40%	3.80%	-3.00%	-1.10%

Source: EBA (2021b); BoE (2021h).

As shown in Figure 3, the EBA/ESRB scenario assumes an increase in the EU unemployment rate by 2.45% in 2021, and a further increase of around 1% for the subsequent two years. While the BoE scenario expects a drastically higher increase in the EU unemployment rate in 2021 (by 3.4%), the scenario predicts a much faster recovery in 2022/23 with falling unemployment rates. Annex Figures 3 and 4 illustrate a very similar pattern for the assumptions on the UK and US unemployment rates. While the UK scenario is more adverse in 2021, it assumes a considerably faster economic rebound from 2022 onwards compared to the EBA/ESRB scenario.

Figure 3: Comparison of the evolution of EU unemployment rate in the 2021 EBA/ESRB and BoE stress test scenarios



Source: EBA (2021b); BoE (2021h).

5. CONCLUSION

This in-depth analysis seeks to identify the main differences in the practice of the supervision of large banks in the UK and the euro area, and shed light on the perils regulatory divergence can entail. We framed the main policy challenge as adjusting to a potential regulatory competition between UK and EU/euro area regulators and supervisors. The underlying assumption is that the common market for financial services will remain open for banks that are regulated and supervised in the UK and vice versa and that therefore foreign banks can, in principle, serve the demand of retail and corporate clients. Simply put, such an arrangement can lead to an incremental dependence of the host economy on the home country regulation and supervision of banks with ambiguous implications for financial stability and growth (Fiechter et al. 2011).

To be sure, several factors play a role in banks' choices of the regulatory and supervisory regime that governs their operations. Supervisory practices are only one, possibly subordinated determinant. Yet, divergences might play out at the margin, with the magnitude of the effect hinging on the significance of the observed differences.

Prior empirical evidence and our original analysis of stress test scenarios suggest that the ECB led supervision of significant banks within the SSM is stricter than the BoE's prudential oversight of the respective UK institutions. We cannot assess the impact of the observable differences in the supervisory practices on financial stability and economic growth as key determinants of social welfare, i.e. we cannot evaluate whether the ECB's stricter or the PRA's more lenient approach to supervising large banks is superior from a public policy perspective. However, we at least want to submit that the ECB's more restrictive stance might also be warranted given the larger legacy assets that the supranational supervisor inherited from arguably insufficient national oversight prior to the inception of the banking union.

An overarching institutional difference that shapes supervisory practices in the euro area and the UK respectively is the partial supranationalisation of supervision in the European multi-layer arrangement that involves a multitude of supranational and national authorities and stands in stark contrast to the purely national organization of supervision within the BoE in the UK. We identify and discuss in some more detail two critical features of prudential supervision in the SSM that find no equivalence in the UK. The complex organization of the JSTs and the complex governance structure of the ECB supervisory branch suggest that UK supervision might be more effective and lead to swifter supervisory decisions, less fraught with the need for political compromise across economies. However, even the social welfare effect of this observation is unclear, because these frictions may simply be the price for some of the benefits euro area banks reap from being licensed in the banking union. Common supervision and resolution are pillars of a supranational architecture that culminates in potent and credible public backstops to banks in participating member states. Providing a powerful safety net to banking union institutions through the SRF and the ESM should facilitate dealing with future banking crises in an efficient manner (see already supra Box 1). This, in turn, should influence banks' refinancing costs immediately, leading to a positive cost of capital effect that potentially offsets disadvantages from more complicated governance arrangements that aim at integrating the many national interests involved.[10]

Finally, we recommend that policy makers in the EU should see the prospects of an ensuing regulatory competition with the UK in prudential regulation and supervision of large banks rather relaxed. The UK has no strong incentives to embark on a race to the bottom-type of competition. Any overly lax oversight over large banks that leads to or deepens future financial crises would – despite cross-border activities of these institutions – also significantly impact on the UK economy. The experience of the financial crisis of 2007 and 2008 and the regulatory response indicate that the UK does not hesitate to promulgate restrictive regulation for its banks if policy makers feel the need to do so. In line with this observation we see the BoE taking a less-restrictive stance than the EBA/ESRB in the design of the macro-scenarios that underpin the 2021 stress tests. However, the BoE is anything but out of step with international trends, represented in our example by US supervisors.

[10] To be sure, the involvement of the ECB Governing Council cannot be legitimized on these grounds and should be reconsidered, although a more effective supranational governance structure might involve Treaty change.

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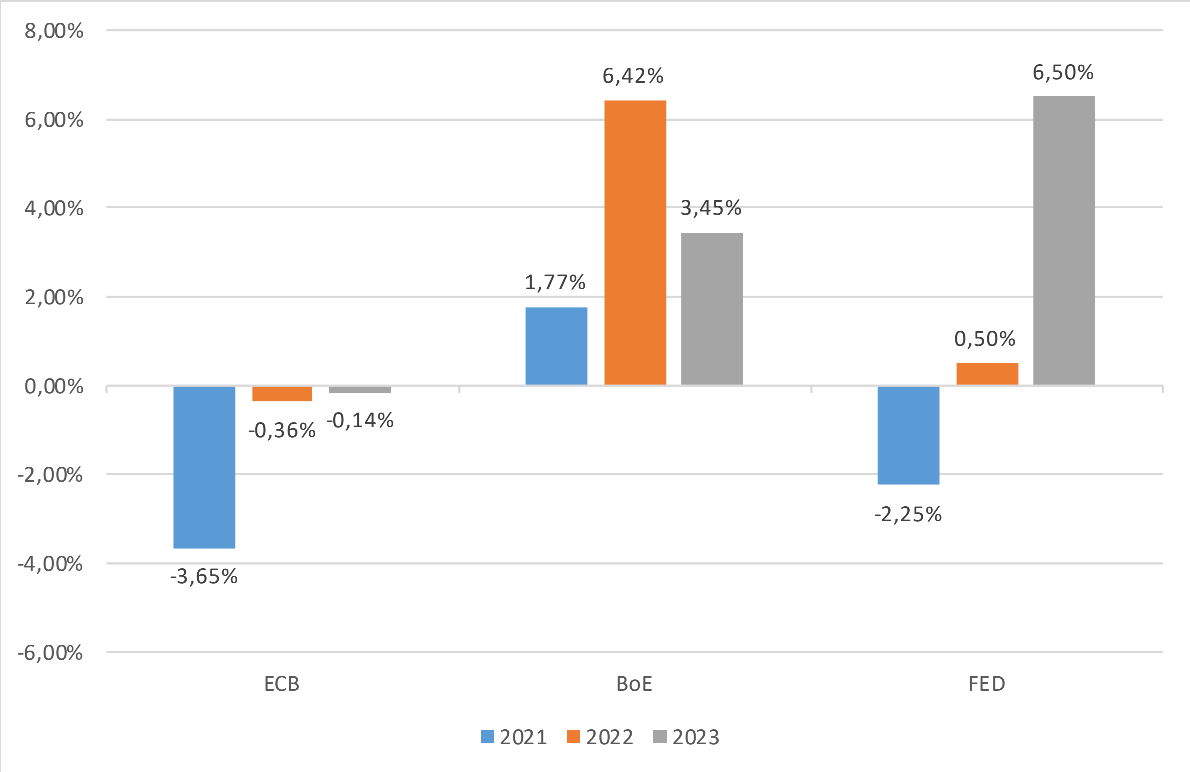
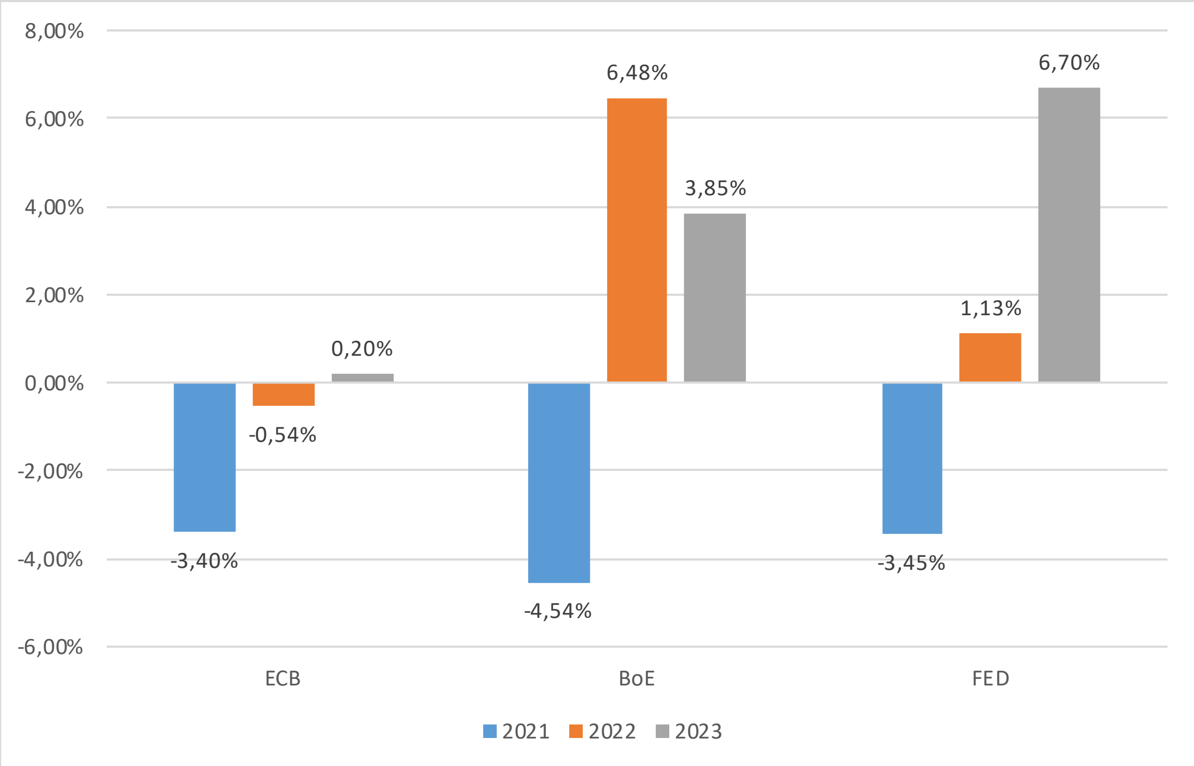
ANNEX

Figure A.1: Comparison of the evolution of UK GDP in the 2021 EBA/ESRB, BoE and FED stress test scenarios



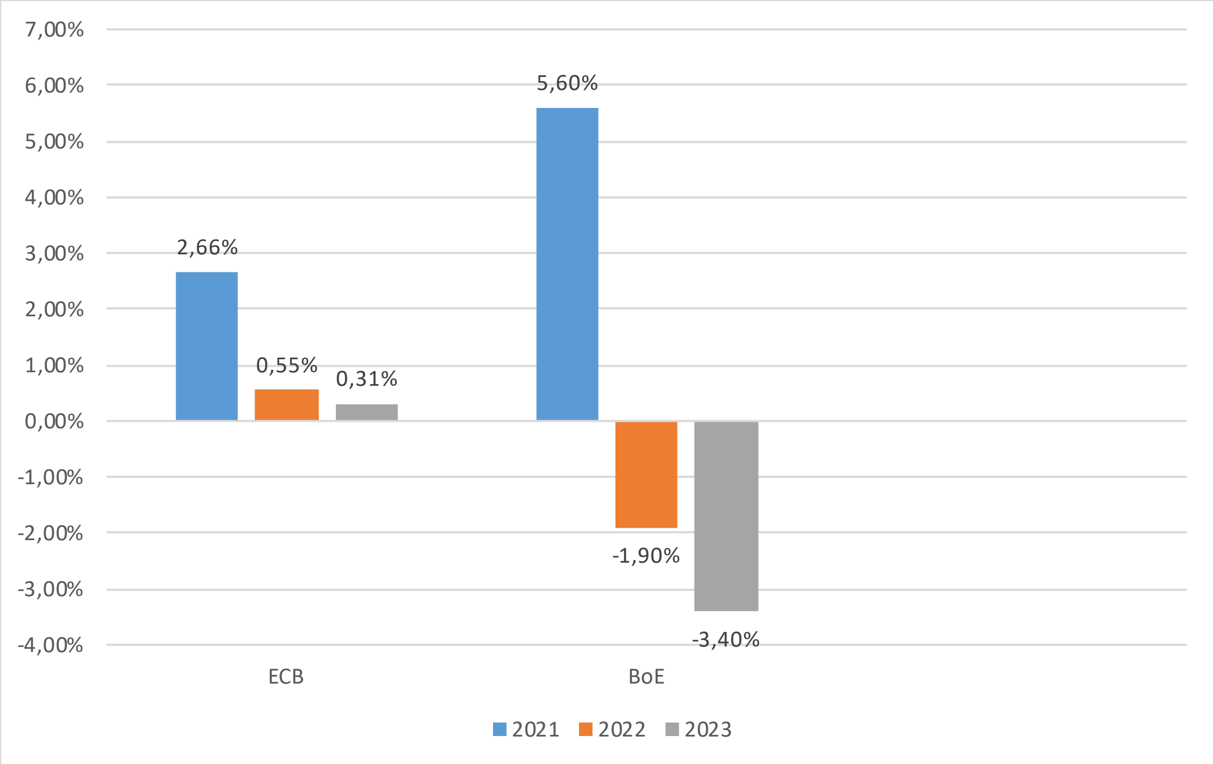
Source: EBA (2021b); BoE (2021h); FED (2021).

Figure A.2: Comparison of the evolution of US GDP in the 2021 EBA/ESRB, BoE and FED stress test scenarios



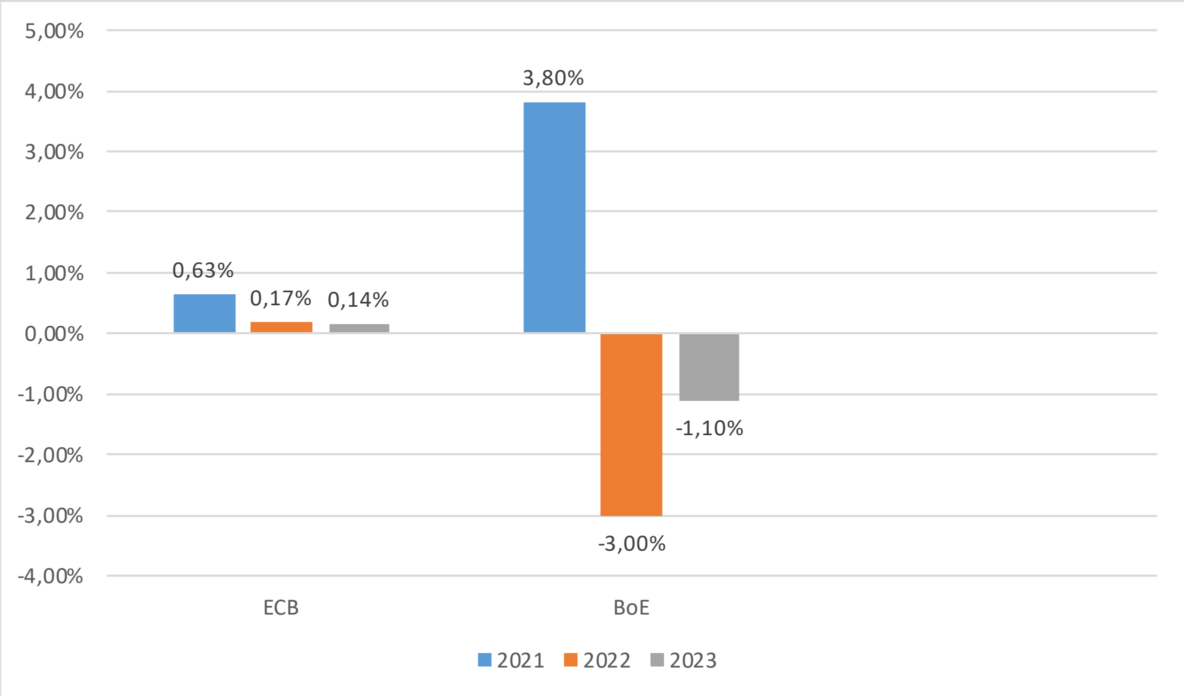
Source: EBA (2021b); BoE (2021h); FED (2021).

Figure A.3: Comparison of the evolution of UK unemployment rate in the 2021 EBA/ESRB and BoE stress test scenarios



Source: EBA (2021b); BoE (2021h).

Figure A.4: Comparison of the evolution of US unemployment rate in the 2021 EBA/ESRB and BoE stress test scenarios.



Source: EBA (2021b); BoE (2021h).

This in-depth analysis provides evidence on differences in the practice of supervising large banks in the UK and in the euro area. It identifies the diverging institutional architecture (partially supranationalised vs. national oversight) as a pivotal determinant for a higher effectiveness of supervisory decision making in the UK. The ECB is likely to take a more stringent stance in prudential supervision than UK authorities. The setting of risk weights and the design of macroprudential stress test scenarios document this hypothesis.

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