# European Banking Union: overview of the latest developments and remaining challenges

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**Abstract**

European Banking Union is undoubtedly an important improvement from the previously fragmented financial supervision system in the European Union (EU). European financial crisis had clearly shown the necessity of profound reforms for the system of European bank supervision and resolution. This paper begins by explaining the position of the European Banking Union in the comprehensive reform of the Economic and Monetary Union and then gives an overview of the three main pillars of the European Banking Union, while pointing out their objectives. Next, the paper examines the latest developments in the Banking Union and illustrates the Banking Union's contribution to restoring financial stability in the Eurozone, with the focus on explaining the implications of direct supervision of Eurozone's significant banks by the European Central Bank (ECB). Non-Eurozone States are able to join the Banking Union prior to their adoption of Euro, and the paper also looks at the benefits and costs from joining the Banking Union for Non-Eurozone States. Finally, the paper examines the remaining challenges of the European Banking Union in terms of design and implementation.

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## Introduction

Last year, 2017, marked 10 years since the onset of global financial crisis, which subsequently led to the European financial crisis in 2008-09 and was followed by the European sovereign debt crisis. The crisis in Eurozone clearly demonstrated the need of a substantial reform of financial regulation and supervision in Europe. The European Union (EU) has already embarked on the path of comprehensive reforms to create a complete Economic and Monetary Union and the Banking Union represents a core element in this reform process. Many leading economic and political figures have emphasized the importance of the Banking Union- for example, the former German Minister of Finance, Mr. Wolfgang Schauble has noted that "The Eurozone crisis had the potential to prise the continent apart, but instead it ushered in the most ambitious step towards European integration since the launch of Euro"[2]. Europan Central Bank (ECB) explains the rationale for the Banking Union as follows- it will allow for a consistent, centralized application of banking rules in the EU and its overall objective is to make the European banking market more transparent, unified and safer[3]. It needs to be pointed that the speed with which the Banking Union, notably its first pillar- the Single Supervisory Mechanism, advanced despite the complex EU legislation has been remarkable.

Compared to a large body of research on the Monetary Union and EU's Monetary Policy, there seems to be a relative lack of academic research on the Banking Union, especially when we consider the Banking Union's importance for the EU[4]. This Paper therefore attempts to fill in this gap by examining several important aspects of the Banking Union.

This Paper has been written after an extensive literature review. We found that quite a lot of previous research has tended to focus on the legal aspects of Banking Union[5]. In terms of economics, some studies have analyzed the efficiency of centralized financial supervision and the interaction between Banking Union and Fiscal Union[6]. Other studies have argued about the right sequencing when creating the Banking Union[7]. Relatively a limited number of studies has focused on the geographical coverage of the Banking Union and these studies have tended to adopt a perspective of an individual country[8] or explain the reasoning of the Member States that are willing to join in contrast to those that decided to opt out from the membership[9]. This paper has an ambition to explain the rationale behind the Banking Union, demonstrate how the Banking Union supports financial stability in Eurozone and the Author also aims to explore the benefits and costs from joining the Banking Union for Non-Eurozone States by taking into account the perspective of all eleven EU Members in Central and Eastern Europe (CEE), the so-called new Member States.

Our Paper is structured as follows. Section 1 explains the position of the Banking Union in the

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[2] *The Banker*, October 2013, pp.114-115.

[3] ECB HP (Banking Supervision): www.bankingsupervision.europa.eu/about/bankingunion/html/index.en.html.

[4] As pointed out for example by Geeroms, H. and Karbownik P. (2014), p.181.

[5] For example, Caramidariu, D.A. (2014) and Moloney, N. (2014), just to name a few.

[6] We can point out Georgescu, O.M. (2013) for the former and Elliott, J.D. (2012) for the latter, amongst several others.

[7] IMF (2013) and Speyer, B. (2013).

[8] For instance, Cristova-Balkanska, I. (2014) and Kisgergely, K. and Szombati A. (2014).

[9] Belke, A. et al. (2016), Darvas, Z and Wolff G. (2013), Mero, K and Piroska D. (2016).

context of comprehensive reforms of Economic and Monetary Union and provides an overview of the Banking Union's main components and objectives. Section 2 examines the latest developments in the Banking Union, with focus on the ways how the Banking Union helps to restore the financial stability in Eurozone. Section 3 discusses why some Non-Eurozone Member States in CEE adopted the "wait and see" approach towards the Banking Union, while others are willing to join the Banking Union before they adopt the Euro. Section 4 looks at the remaining challenges of the Banking Union. Conclusion summarizes main arguments of this Paper and lists future research questions.

## 1. Overview of the European Banking Union

Let us first define the Banking Union and then look in detail at why and how it has been constructed[10].

### 1.1 Definition of the Banking Union

As a matter of fact, there is no common definition of the Banking Union. Elliott J. Douglas notes that the concept of a Banking Union is an analogy to the Monetary Union and that while Banking Union itself is a "term of art" without precise meaning, it refers to a structure where countries coordinate their banking systems through a common regulation and supervision and have a common management of resolution process for troubled banks[11]. This Paper's definition of a Banking Union is based on a precise and comprehensive definition given by the Council of the EU, which is as follows. "The Banking Union is an EU-level banking supervision and resolution system, aiming to encompass deposit insurance, which operates on the basis of EU-wide rules. It aims to ensure that the banking sector in the Euro area and the wider EU is safe and reliable and that non-viable banks are resolved without recourse to taxpayers' money and with minimal impact on the real economy[12]".

### 1.2 Rationale behind the European Banking Union

It is perhaps interesting to note that Banking Union itself is not an entirely new concept in the EU. In fact, the idea of a Banking Union goes back to the 1960s and 1970s. However, at that time it emerged in a different context- the initial project of the European Commission did not aim to move bank supervision to the supranational level and was not crisis-driven. Therefore, as such it had not become a prominent part of the EU-level discussion agenda[13].

Report by the High-Level Group on Financial Supervision in the EU (De Larosiere Report) from February 2009 pointed out at the lack of EU-wide mechanism for crisis resolution of cross-border banks and the lack of adequate macroprudential supervision, as some of the crucial problems in European financial regulation and supervision. The Report gave a clear, pragmatic vision on how to

[10] This section draws upon Hanada, E. (2018) pp.209-214.

[11] See Elliott, J. D. (2012), p.6.

[12] Refer to http://www.consilium.europa.eu/en/policies/banking-union/ and to the definition used at the Expert Conference "Banking Union: The State of Play and Challenges Ahead" held at the Croatian National Bank on 18 May 2016 (https://www.hnb.hr/en/-/bankovna-unija-ostvarenja-i-izazovi).

[13] Matthijs, M. and M. Blyth (2014), p.45 and Mourlon-Druol, E. (2016) provide a detailed account of this subject.

reform the European supervisory architecture[14]. The Report's practical recommendations have brought about a fundamental change and reform in the EU's system of financial supervision. For example, at the end of 2010 a new institution at EU-level (European Systemic Risk Board: ESRB) was created for macroprudential oversight. This fundamental reform of the European financial supervision has been the EU's response to the financial crisis of 2008-09[15].

European Banking Union (EBU) itself was endorsed by EU leaders at the European Council Summit in June 2012, after which the process establishing the EBU considerably speeded up, as shown by Table 1. Following the bail-outs of Greece, Portugal and Ireland and facing the recapitalization of Spanish banks through the European Stablity Mechanism (ESM), it became evident that a drastic policy was needed to restore the financial stability in Eurozone and that the EU leaders needed to act quickly[16]. Under these circumstances, the EU decided to create the EBU encompassing the centralized financial supervision and resolution system as well as a strengthened deposit insurance. It is also important to note that the EU decided to base the centralized bank resolution system in EBU on the bail-in principle[17].

In addition, EBU needs to be explained in the context of comprehensive reforms of the Economic and Monetary Union (EMU). These reforms, which have been undertaken since 2010, aim to resolve the problems identified in the original EMU and to create a well-functioning highly integrated EMU, which has been referred to as "the genuine EMU".

First, in order to resolve the macroeconomic divergence in the EU, the EU has officially assumed the task of monitoring each Member State's fiscal policy and possible macroeconomic imbalances. This is ensured through a new mechanism called the European Semester (introduced in 2010), which thus serves as a framework for the coordination of economic policies across the EU[18].

Second, the Report "Towards a Genuine Economic and Monetary Union" prepared by four Presidents (President of the European Council, European Commission, ECB and Eurogroup) and published on 5 December 2012 specified four main frameworks leading to a deeper integration in Eurozone and thus to a much stronger EMU. In order words, comprehensive reforms for restoring Eurozone are divided into the four building blocks, the frameworks. Firstly, the integrated financial framework, secondly, the integrated budgetary framework, thirdly, the integrated economic framework and on the whole they are to be supported by the fourth framework, political accountability, which means a strengthened democratic legitimacy. Banking Union is positioned

[14] European Commission (2009), pp.35-37.

[15] Tanaka, S. et al. (2014) pp. 217-222.

[16] Bankia, Spain's fourth largest bank collapsed in May 2012 and the Spanish government was called to rescue the bank. The costly rescue prompted large capital outflows from Spain amidst financial market's fears on the stability of Spain, the fourth largest economy in the Eurozone. In order to avoid collapse of the Spanish banking sector and to prevent escalation of crisis in the Eurozone, Spain's government secured financial assistance for its banking sector from the EU through the ESM. Moloney, N. (2014) as well as Matthijs, M. and M. Blyth (2014) explicitly note that the request of financial assistance from the EU by Spain in June 2012 proved to be a turning point which urged the EU to commit itself to a fundamental reform leading to the creation of EBU.

[17] Bail-in principle means that the bank resolution should not place the burden on the public (i.e. the taxpayers). Instead, equity and debt can be written down and converted, placing thus the burden of resolution costs on the bank's shareholders and creditors (Single Resolution Board's official HP: https://srb.europa.eu/en/content/resolution-qa).

[18] For details see Matthijs, M. and M. Blyth (2014) and Iwata, K. (2016).

within the integrated financial framework. To be more precise, according to the Report, the integrated financial framework should consist of (1) Single Supervisory Mechanism (SSM) and Single Rulebook, (2) Harmonized national Deposit Guarantee Schemes in EU Member States, (3) Harmonized national resolution frameworks and creating the Single Resolution Mechanism (SRM) with appropriate fiscal backstop arrangements, and (4) Direct bank recapitalization through ESM (see Figure 1). Overall, the Report thus significantly contributed to deepening the EU integration by specifying a detailed road map for creating a genuine EMU. It needs to be emphasized that for the first time since the creation of EMU, it has been the above-mentioned Report that called for a centralized financial supervision and centralized bank resolution mechanism based on the bail-in principle[19].

Last but not least, the Report "Completing Europe's Economic and Monetary Union" prepared by five Presidents (President of European Commission in close cooperation with President of the Euro Summit, President of Eurogroup, President of ECB and President of the European Parliament) and issued on 22 June 2015 sets out a detailed road map to ensure progress in terms of economic union, financial union, fiscal union and democratic accountability. This Report calls for reaching the final stage, "a deep, genuine and fair EMU" by 2025. It has to be noted that in terms of financial union, this Report calls not only for a completed Banking Union, but it also advocates launching the Capital Markets Union[20].

### 1.3 European Banking Union: its Structure and Objectives

As Figure 2 shows, EBU consists of 3 pillars: SSM, SRM and EDIS, which all apply to the Eurozone Member States (currently 19) and to those Non-Eurozone Members that chose to join the EBU (hence the sign EU19+). These 3 pillars are supported by the Single Rulebook, which is a set of harmonized legislation that applies to all financial institutions across the EU, therefore it encompasses the whole EU (EU28). Let us explain each pillar in more detail.

First pillar, the SSM refers to the EU's unified and harmonized supervision of banks. It should be noted that transfer of supervision to the supranational, EU level is not entirely a new concept- on the contrary, it has been widely debated and examined in economic research[21]. Since 4 November 2014, ECB has assumed the role of the principal supranational supervisor (Table 1). Therefore, ECB is now a direct supervisor of more than 120 "significant banks" in the Eurozone, while the "less significant" banks (around 3500 banks) in Eurozone are supervised by national supervisory authorities. We shall explain the criteria of "significant banks" in Section 2.

There were two concerns regarding the SSM. Firstly, the potential risk of having a two-tier supervisory system between the banks supervised by ECB and those by national supervisors. To

[19] Centralized here means unified at the Eurozone level. Geographical coverage of EBU (i.e. which parts apply to the EU as a whole and which apply only to Eurozone) is explained in more detail in later parts of the Paper.

[20] Iwata, K. (2016), pp.18-19 and the Overview on the European Council's HP (www.consilium.europa.eu/en/policies/emu-report-2015/).

[21] See Schoenmaker, D. and Oosterlo S. (2005) for the literature review of the subject. Skuodis, M. (2014) reviews literature on the suitability of ECB to be a single supervisor in the EU.

avoid such inconsistency, supervisory procedures will coincide and will need to be previously approved by the ECB's Supervisory Board. Moreover, all data on supervisory activities will be transmitted to the ECB which has the authority at anytime to decide to directly supervise a bank (in other words, the ECB is able to revise a bank's status from "less significant" to "significant"), should there be a potential systemic risk for the banking sector. Secondly, there were concerns that the ECB might run a reputational risk, when assuming a new responsibility of financial supervision. This is because the ECB's principal responsibility lies with the monetary policy. In order to mitigate such concerns, ECB completely separated its monetary policy function from the supervisory one in its structure[22].

Prior to the financial crisis, financial supervision in the EU had been based on the principles of home country control with minimum standards and mutual recognition. This had resulted in differing supervisory methods, which created a potential for regulatory arbitrage. Financial crisis in 2008-09 exposed the critical weaknesses of such fragmented supervisory framework. EU's financial supervisory and regulatory system has since then undergone a fundamental reform and now with a centralized bank supervision within the SSM framework, the new European supervisory system is expected to be effective in both early crisis prevention and in minimizing the probability of bank failures. However, in order to fully achieve these two objectives, SSM needs to be complemented with adequate burden-sharing mechanisms, which is the role of the EBU's second and third pillar.

Before we explain the second pillar of EBU, it has to be pointed that before the crisis, most EU Members did not have any specific laws referring to the bank bankruptcy at crisis times. As Moloney, N. (2014) describes, this led to initial ad hoc responses by national governments and several very costly rescues. Generally, if the banks that are declared bankrupt are not unwinded efficiently and in a timely manner, there is a high risk of financial contagion. The resolution issue becomes even more complicated in the case of cross-border banks. Resolutions of the Fortis Group (in 2008) and of the Dexia Bank (in 2011) have been well-documented as examples of very costly and complicated resolutions[23]. The crisis thus clearly urged the EU to adopt a predictable and consistent framework for early intervention (into banks that are in a critical condition) and for efficient resolution procedures (if the banks are no longer viable).

Second pillar, the SRM is defined by the ECB as a mechanism "ensuring the efficient resolution of failing banks with minimal costs for taxpayers and the real economy"[24]. SRM consists of Single Resolution Board (SRB), the administrative body ensuring swift decision-making procedures, and Single Resolution Fund (SRF), a common backstop established in January 2016 in order to enable payment for resolution measures[25]. SRB was established in January 2015 and is located in Brussels. SRF is composed of contributions from banks and certain investment firms in the 19 Eurozone

[22] For details on these two concerns, see Caramidariu, D-A. (2014) and Georgescu, O.M. (2013).

[23] Resolutions of Fortis and Dexia are described in detail in IMF (2013), Box 3.

[24] For details see ECB (www.bankingsupervision.europa.eu/about/bankingunion/html/index.en.html).

[25] European Commission, MEMO/14/294 from 15 April 2014, "Banking union: restoring financial stability in the Eurozone". SRB can allow for a bank to be resolved over a weekend. As a single supervisor, ECB will have an important role in deciding whether the bank is failing or is likely to fail.

Members. SRF started with national compartments that will be gradually built up and mutualized during the first eight years (2016-2024) in order to reach the target level of at least 1% of the amount of covered deposits of all banks within the EBU (which is estimated to be approximately 55 bln EUR) by 2024[26]. According to the latest information published on the SRB official website, as of 30 June 2018, the SRB had collected 7.5 bln EUR from 3315 institutions in annual ex-ante contributions to the SRF, therefore, in total, the SRF now holds an amount of 24.9 bln EUR[27].
SRM therefore has to be seen as an extremely important achievement in terms of restoring financial stability in Eurozone- not only it ensures early intervention into troubled banks (via SRB), but also SRF acts as a credible means of covering the bank resolution costs.

From our above-mentioned explanation it is clear that the creation of SRM has been a much more challenging task than creating SSM. Besides numerous technical and legal challenges related to SRM, there was also a need to accommodate a broad range of opinions from Member States. For example, due to Germany's concern that SRF would affect its budget sovereignty, key details of SRF had to be ruled by Inter-Governmental Agreement instead of EU legislation[28].

Third pillar, the EDIS is at the least advanced stage of the three pillars. Originally, Deposit Guarantee Schemes (safety nets for bank account holders in case of bank failures) varied greatly among EU Members, but the Deposit Guarantee Scheme (DGS) Directive of March 2009 harmonized the minimum protection level across the EU to 100,000 Euro (per depositor, per bank) by the end of 2010. The second amendment of the DGS Directive in 2014 ensured that pay-outs would be carried out more quickly (within 7 working days as opposed to the original 20 days) and that national DGSs would have a significant level of ex-ante funding. However, implementation and funding of each DGS remains within each Member State, which poses a risk to each State's national budget, should there be a bank crisis. Common European Deposit Insurance Scheme (EDIS) itself is currently still under construction and the main reasons will be explained in Section 4 of this Paper.

The above-mentioned 3 pillars of the EBU are supported by Single Rulebook. Single Rulebook through its harmonized application of EU rules ensures that all financial institutions (approximately 8300 credit institutions in the EU) are regulated in a consistent and efficient way and that national distortions in the Single Market are minimized. Single Rulebook is based on recommendations made by the previously mentioned High-Level Group on Financial Supervision in the EU (De Larosiere Report). Figure 2 shows three most important legislation pieces of the Single Rulebook- Capital Requirements Regulation (CRR) and Capital Requirement Directive IV (CRDIV)[29], Bank Recovery and Resolution Directive (BRRD) and Deposit Guarantee Scheme Directive (DGSD). BRRD (adopted

[26] Details on SRB and SRF are from the HP of SRB (http://srb.europa.eu/en/). It should be noted that since December 2014 the ESM can be used for a direct recapitalisation of banks, so ESM is now a de facto common fiscal backstop.

[27] Press release from 24 July 2018 on SRB official home page (https://srb.europa.eu/en/node/596).

[28] Geeroms, H and Karbownik, P (2014).

[29] CRR and CRDIV both implement new global standards on bank capital (within the Basel III Framework) in the EU and apply since 1 January 2014. Through a new definition of regulatory capital and new minimum share of Tier 1 capital, CRR and CRDIV implement stricter capital requirements, as well as new requirements on liquidity and leverage with the aim of reducing probability of bank failures (From HP of the Council of the EU: http://www.consilium.europa,eu/en/policies/).

in April 2014) requires banks to prepare recovery plans to overcome financial distress and through such ex-ante preparations aims to reduce cost of failure. It means that EU Members must establish a national resolution fund to which all banks have to contribute[30]. DGSD (adopted in summer 2014) aims to provide a stronger protection of deposits with quicker pay-outs and it also requires that all Deposit Guarantee Schemes are pre-funded to ensure that they will be able to fulfill their obligations towards depositors. There have been, however, some EU Members that still need to implement BRRD and DGSD into their national laws.

We have explained the objective of each EBU's pillar in turn. Let us now summarize the overall objectives of the EBU. First, once the SRF is completed, EBU should be able to break the negative spiral between weak banks and national finances[31]. This has been one of the EBU's main objectives. As bank resolution will be financed from the resolution fund, bank failures would no longer exert a negative impact on governments' fiscal positions, which should break the negative spiral. Second, harmonized rules and centralized supervision under SSM should ensure a strengthened bank capital base and more effective and well-coordinated supervision should enable early crisis prevention. Third, the EBU should eventually reduce fragmentation of Eurozone's banking systems. As most banks in Eurozone become subject of the same supervisor (ECB) and are part of the same SRM, banks' market credibility will be based on their specific risk profile and less on the state of finances in the Member State where the banks are based. This should make it easier for banks to lend to firms and households. Fourth, SRM in its final form should avoid the risk of costly bailouts of failed banks. Fifth, effective DGS should restore confidence of depositors and prevent risk of massive withdrawals of deposits (the so-called bank runs).

## 2. European Banking Union and its role in restoring financial stability

Section 1 illustrated that EBU awaits more progress in its third pillar, EBU is thus not yet 'fully-fledged' (complete). This Section examines how the EBU in its current form contributes to the financial stability and how it can also foster financial integration in Eurozone[32].

### 2.1 How the EBU restores the financial stability in Eurozone

Let us first mention the evaluations by policy makers, banking experts and market participants. Banking experts seem to agree that the centralized supervision for systemic banks as well as agreement on the SRM have been a much needed institutional strengthening for the EU and many have appraised the remarkable speed with which ECB assumed its position of supranational single supervisor[33]. They point out that supervising systemic banks at the EU level is expected to increase

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[30] For details see European Commission (https://ec.europa.eu/info/business-economy-euro/banking-and-finance/).

[31] Negative spiral of banks and sovereigns (often referred to as the vicious circle/link of banks and sovereigns) has been extensively researched. See Geeroms, H. and Karbownik, P. (2014) and Georgescu, O.M. (2013). This was seen in Ireland during the crisis in 2010-12. As the Irish government bailed out failed banks, Irish fiscal deficit deteriorated which led to higher sovereign bond yields. Uncertainty about Ireland's national finances implied soaring funding costs for banks which led to more insolvent banks.

[32] This Section partly draws upon Hanada, E. (2018), pp. 215-219.

[33] *The Banker*, October 2013, pp.58-59, interview with Mr. Enrico Cucchiani (CEO of Intesa Sanpaolo) and interview with Ms. Debra

confidence in banking sectors, increase trust between cooperating supervisors and should limit national bias in supervision[34]. Overall, several policy makers praised the EBU as a tremendous achievement that has been necessary to complete the EMU[35].

The importance of EBU is the fact that for the first time various measures for crisis prevention, crisis management and crisis resolution in the EU have become unified within the harmonized set of rules, i.e. the Single Rulebook, as was shown in Figure 2.

To be more precise, the intended effects of EBU on financial stability in Eurozone can be explained as follows[36]. Firstly, consistent application of high quality supervisory and regulatory standards within the SSM framework ensures that banks will now keep much more robust capital base than in the past, when the home bias in national supervision in some cases led to a more lenient stance of banks towards risk-taking. Secondly, with the unified surpervisory approach under SSM, risk monitoring for banks will significantly improve, which should enable an early crisis prevention. Thirdly, crisis resolution under SRM (which closely cooperates with SSM) will be effectively managed. This means there will no longer be any ad hoc national responses to cross-border banks' failures, as seen in the past (e.g. the case of Fortis Bank in 2008 and Dexia Bank in 2011). Fourthly, as the new bank resolution under SRM is based on the bail-in principle, public funds will no longer be used in bank resolutions and banks' losses and recapitalization costs will be borne by bank shareholders and creditors. This will minimize the risk of the so-called vicious cycle (link between banks and sovereign debts), which had occurred during the 2010-12 sovereign debt crisis, notably in Greece and Ireland. There is, however, an important caveat. For the SRM to be fully credible, it is extremely important for SRF to have sufficient funding. As was explained in Section 1, SRF is a subject of an 8-year transition period and it will be fully mutualized in 2024. Therefore the risk of the vicious cycle between banks and sovereigns will only be completely eliminated in 2024.

In addition, EBU is also expected to counter fragmentation of bank markets in Eurozone in the following way. Significant banks in Eurozone are all subject of SSM and SRM. Centralized supervision together with Single Rulebook will lower cross- border banks' compliance costs, which should enable these banks to take advantage of economies of scale. Furthermore, bank competition should be positively affected by improved level playing field for banks under EBU with unified regulations and supervision. Improved bank competition should then in turn support more lending by banks and as a result, differences among countries in terms of lending rates could be reduced[37].

### 2.2 Comprehensive Assessment by ECB in 2014

ECB became a single supervisor under SSM in November 2014 and the so-called "significant banks" in Eurozone came under the ECB's direct supervision. To qualify as significant, banks must

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Revoltella (Chief Economist of European Investment Bank Group) in *The Banker, March* 2016, pp.58-59, just to mention a few.

[34] *The Banker*, July 2014, p.36, comments by Ms. Elke Koenig, current Chair of the SRB and ex-President of the Federal Financial Supervisory Authority (BaFin).

[35] For example,Mr. Lucas Papademos (former Greek Prime Minister and ex-Vicepresident of ECB),*The Banker*, March 2015, p.22.

[36] The following two paragraphs mostly refer to ECB (2015), *Financial Integration in Europe*, Chapters 2 and 3.

[37] ECB (2015), *Financial Integration in Europe*, p.91.

meet at least 1 of 4 criteria (size of their assets, economic importance, cross-border activities and direct public assistance). Moreover, a bank can be significant if it is 1 of the 3 most significant banks established in the given country and this has been especially relevant in the case of Eurozone states in CEE (Slovenia, Slovakia and the three Baltic States) that are dominated by large foreign-owned banks. In practice, direct supervision means that a significant bank is supervised by the Joint Supervisory Team (JST), which includes a coordinator at ECB, national sub-coordinators and team of experts (Table 12). Banks not classified as significant are considered "less significant" in the ECB terminology and are directly supervised by national supervisor authorities, but monitored by ECB[38]. ECB can change banks' significance status (from less significant to significant or the other way round) due to M&A or a normal business activity.

ECB conducted its first Comprehensive Assessment (CA) for 130 banks in Eurozone and the CA results were published on October 26, 2014 (Table 2). This ECB-conducted CA of 2014 paved the way for SSM and had three main aims. First, to strengthen banks' balance sheets by remedial actions for identified problems. Second, to improve the quality of data on the banks' condition and thus enhance transparency. Third, to assure banks' stakeholders and market participants that banks will be well-capitalized after the necessary remedial actions have been completed.

CA consisted of the Asset Quality Review (AQR) which is essentially a health check for banks, and the Stress Test which examines banks' resilience. AQR analyses each bank's credit and market risk exposures and thus makes bank's exposures transparent. Under the Stress Test, banks' solvency is tested through two hypothetical scenarios, in which the adverse scenario investigates what happens to banks' capital ratios if a negative shock (e.g. slump in house prices) occurs (see Tables 3, 4, 5 and 6). As a result, Stress Test identifies banks with capital shortfalls[39]. Threshold ratios for identifying capital shortfalls were as follows: Tier 1 (CET1) capital ratio of 8% for the AQR and for the Stress Test baseline scenario, and a CET1 capital ratio of 5.5% for the Stress Test adverse scenario. In fact, these capital requirements are stricter than Basel III requirements, which are 4.5% and 4.5% respectively[40]. Common Equity Tier 1 Capital (CET1) is a stricter version of the core Tier 1 capital in line with the Basel III.

It should also be noted that the Stress Test was carried out together with the European Banking Authority (EBA) and in 2014 it included 20 Non-Eurozone banks (besides 130 Eurozone banks).

The CA in 2014 has been unique in several aspects. First, it was conducted at an unprecedented scale, in much greater depth than ever before, and it provided much more extensive information on all participating banks than any other previous Stress Tests. 81.6% of SSM's total bank assets were covered by this CA and over 6000 experts were involved (in ECB and national competent authorities). Second, it was a big improvement compared with previous Stress Tests. Stress Test by EBA in March

[38] ECB's HP (https://www.bankingsupervision.europa.eu/banking/). To illustrate the case for Eurozone Members in CEE, let us mention that the number of significant banks (in 2015) was: 2 in Estonia, 3 in Latvia, 3 in Lithuania, 3 in Slovenia and 3 in Slovakia. The number of less significant banks was: 13 in Estonia, 20 in Latvia, 8 in Lithuania, 8 in Slovenia and 11 in Slovakia.

[39] This and the following paragraphs are based on ECB's *Aggregate Report on the Comprehensive Assessment*, Oct. 2014, pp.2-10.

[40] Gassmann, P. et al. (2014).

2011 included 91 banks from 20 EU Members, so the scope was more limited than in 2014 CA. What is even more important is that the 2011 Stress Test was not rigorous enough- banks were required to have Tier 1 Capital ratio of 6% (in total assets) and the Stress Test period was shorter (2 years) than in the CA of 2014 (3 years). The 2011 Stress Test showed that 7 banks out of 91 failed. Failed banks included 5 Spanish banks, 1 Italian and 1 German bank, however the French-Belgian Dexia Bank (which later on in that year failed and needed public bailout) did pass the test and was even indicated to be one of the safest banks. This clearly shows some serious shortcomings of the past Stress Tests. Third, in 2014 the Stress Test was conducted simultaneously with the AQR and a common definition for Non-Performing Loans (NPL) was used in the AQR. This was a very important contribution, since such consistency in definitions enabled to reclassify a substantial part of banks' loan portfolio[41].

We can conclude that CA in 2014 has clearly been the most comprehensive assessment of Eurozone's major banks ever conducted and has marked the end of era of differing supervisory practices in the Eurozone[42]. As the ECB is regarded to be the most credible EU institution, its CA results have the value of reassuring markets that the banks that passed the CA are indeed stable and well-capitalized. Inclusion of AQR into the CA in 2014 further added to the credibility of the CA results.

### (1) Results of the 2014 Comprehensive Assessment by country

Results by country are given in Figure 3. Countries are grouped into the Most impacted, where the Average relative CET1 capital impact (measured on the right-hand axis and shown by a red line) was higher than 40%, Average (if the impact was between 25 and 40%) and the Least impacted (if the impact was 25% and less)[43]. It is no surprise that countries worst affected by the European Sovereign Debt crisis (Greece, Italy, Ireland, Portugal) are in the Most impacted category group. Eurozone CEE States scored well and are in the Least impacted group with the exception of Slovenia, which was one of the Most-impacted countries. Slovenia's average relative CET1 capital impact was 67% (while in the 2011 Stress test, which was before the Slovenian banking crisis of 2013, the same impact was only 26%). Such large difference in the impact result in Slovenia is due to a better financial situation of Slovenian banks in 2011 as well as due to the fact that the 2011 Stress Test was not as rigorous and comprehensive as the 2014 CA.

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[41] This paragraph is based on Gassmann, P. et al (2014), *The Banker*, December 2014, pp.42-44, and the explanation of CA from http://www.ing.com/Newsroom. For example, for Slovenia the effect of the common definition of NPL in the AQR of 2014 meant that 32% of loans in the AQR sample were reclassified to NPL. Overall, this reclassification of NPL found that 28% of banks were less conservative than ECB when they had applied their own definitions for classifying loans as NPL.

[42] Prof. P. Demetriades explains how big European banks had previously been able to exploit their economic weight to influence supervisory decisions. *The Banker*, December 2014, p.43.

[43] The average relative CET1 impact here is expressed as a percentage of the resulting CET1 capital ratio (after adverse scenario) of the starting CET1 percentage. Obviously, the higher this percentage is, the higher the impact. This means that banks with higher impact are less resilient to changing market conditions and negative shocks and are more likely to fail under adverse circumstances.

### (2) Some explanations of the Results for the 2014 CA

First, it is beyond the scope of this Paper to examine whether the predominantly domestic ownership of Slovenian banking sector (Figure 7) is a major factor behind Slovenia's worse performance in comparison with the other 4 Eurozone CEE States. There has been, however, an extensive literature on the positive effects of foreign ownership on the banking sector performance and Koyama, Y. (2015) notes that Slovenia's banking crisis in 2013 was caused primarily by irresponsible and excessive lending by major state-controlled banks to the construction sector.

Let us examine whether the country results for the 2014 CA (Figure 3) could be at least partly explained through cross- country differences in supervisory and regulatory practices. Figure 4 shows the relevance of data-driven supervision for the results of the CA. The shaded area shows that countries with a low Data Index (which indicates less data-driven supervision- less frequent and less thorough off-site data analysis) tend to have a high relative capital impact. Slovenia, Cyprus and Greece belong to this category, and the relation seems somehow relevant also to Portugal and Ireland. On the opposite end of the shaded area, we can see countries such as Lithuania, Spain and France where the Data Index is higher (i.e. there is more data-driven supervision in place, with more intensive and more thorough data analysis in supervision), which coincides with very good results in terms of a relatively low capital impact.

How about the position of Slovakia, Estonia, Latvia, Finland and Malta? They do not appear to fit the relation suggested by Figure 4 and are positioned outside the shaded area. We can assume that the extent of data-driven supervision is not a sole factor influencing the relative capital impact. The original report quoted in Gassmann, P. et al (2014) classifies these countries as fast growing. We should add that Slovak banks are known for their conservative lending practices and their average Tier 1 capital rato of 14.7% ranks them in the upper range of Eurozone banks. Slovakia has been a fast-growing economy and part of the reason is that capital inflows were dominated by the least volatile type of capital inflows, FDI[44]. Estonian and Latvian banks have been very well-capitalized (much above the required minimum) and especially Estonia is known to stand out for its punctuality in applying EU regulations and setting even stricter capital requirements than the EU demands[45]. In Lithuania, supervising experts did confirm that the post-crisis supervision became more intense, active and also more focused on preventing problems and their early identification[46].

Gassmann, P. et al. (2014) concludes that data-driven supervision implicitly encourages banks to improve their data capabilities and meet more rigorous standards, which is then reflected in the

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[44] *The Banker*, July 2013, pp.46-48. Conservative approach means conservative banking model based on taking deposits and providing corporate and retail loans without engaging into risky practices, such as lending in foreign currencies. Even prior to Slovakia's Euro adoption in 2009, lending in foreign currencies was negligibly low. See Banincova, E.(2010a, 2010b, 2012).

[45] Chapter 6 on Financial regulation in Estonia by Juuse, E. in Kattel, R. et al. (2016) looks in detail into Estonia's regulatory and supervisory practices before and after the financial crisis of 2008-09. For Latvia, OECD's Latvia-Review of Financial System of April 2016 gives examples of Latvia's capital adequacy ratios well above the required minimum of 8%.

[46] Comments by Mr. Valvonis, Director of Supervision service at Lietuvos Bankas (Nat. Bank of Lithuania) in *The Banker*, November 2013, pp.62-63. This stricter bank supervision partly resulted from two bank collapses- Snoras Bank in November 2011 and Ukio Bank in February 2013. Problems in these banks occurred due to alleged fraud in the former and due to a specific business model in the latter, and they were not directly linked to regulation, but Lithuania decided to adopt a more cautious approach.

better preparedness of banks in terms of capital.

### (3) Results of the 2014 CA for individual banks

Overall, the 2014 CA found that out of 25 banks with identified capital shortfall (Table 2), 11 banks failed the CA, while the remaining 14 were classified as technical failures. Table 3 gives details for these 25 banks. Most banks with capital shortfalls were identified in Italy- nine. Although only 3 Greek banks had capital shortfalls, their CET1 shortfalls were large. In the adverse scenario of the Stress Test, CET1 ratio fell to minus levels in 5 banks, which implies a serious problem.

To better illustrate the sharp deterioration of CET1 ratios during the 2014 CA for these 25 banks, we add results for significant banks from 3 Baltic States (Table 4). This confirms that when banks are well-capitalized like these banks in Baltics, their CET1 ratios will stay well above the required minimum of 5.5% after the adverse scenario.

Let us now look at the case of Slovenia, as this is the only Eurozone CEE State that was in the Most impacted country group. Out of the 3 Slovenian banks that took the 2014 CA, 2 of them failed- Nova Ljubljanska Banka (NLB) and NKB Maribor (Table 3). Both banks are state-owned. NLB had the post-AQR CET1 ratio of 14.6% and NKB Maribor 15.7%, which was still well above the required 8% threshold. However, their CET1 ratios after the adverse scenario fell below the required minimum of 5.5% (5% in the case of NLB and 4.4% for NKB Maribor). This is understandable in light of the above-mentioned Slovenian banking crisis. Both banks had received state aid prior to the 2014 CA and following these results they had to raise additional capital. It is interesting that as Gassmann, P. et al. (2014) points out, these two Slovenian banks had not been expected to fail the 2014 CA test by institutional investors (surveyed by Goldman Sachs in September 2014). Slovenia has been the worst performer among the 5 Eurozone CEE States, but we should point out that the capital shortage identified for NLB and NKB Maribor has been neglibigle in its amount, compared to for example Monte dei Paschi di Siena Bank from Italy or to the Greek Eurobank (Table 3). Slovenian government injected capital into 3 of the largest banks (NLB, NKB Maribor and Abanka Vipa) and set up a public agency BAMC for collecting non-performing claims from the troubled domestic banks. As a result, since 2015 there have already been signs of recovery in Slovenian banking (see data for NLB in Tables 9 and 10)[47].

Overall, Table 3 implies that we should continue to follow developments in capital indicators and stability of several significant Italian and Greek banks.

### (4) Implications of the 2014 Comprehensive Assessment for the Non-Eurozone States

It was mentioned that the Stress test in 2014 was conducted with EBA and also included 20 Non-Eurozone banks. Some of these banks were from Poland and Hungary, and all of them passed the Stress Test (Average impact on CET1% as percentage of the starting CET1 % was well below

[47] See also *The Banker*, March 2016, pp.62-62 and *The Banker*, September 2016, p.76 for recent performance of Slovenian banks.

25%)[48]. Such good results may imply that these Non-Eurozone CEE States may not feel an urgent need to join EBU. We shall re-examine this subject in detail in Section 3.

How do the Eurozone CEE Members evaluate their experience of being EBU members? Overall, Eurozone CEE Members have positively evaluated their EBU Membership[49]. Three Baltic States (Estonia, Latvia and Lithuania) have some of the highest ratios of foreign-owned banks (Figure 7), the EBU membership was thus seen as a logical development, and joining the EBU was facilitated by already well-established and close ties with Scandivian supervisors. Baltic States expect EBU to further enhance cross-border cooperation with Scandinavian supervisors and create efficient early risk warning systems[50].

Can we expect any positive spillovers from these Eurozone CEE States to Non-Eurozone? The experience of Eurozone CEE States highlights a number of incentives and merits of joining the EBU, which could positively impact the motivation of Non-Eurozone CEE States to join the EBU.

Firstly, CA gives a valuable incentive to improve the data management capabilities in supervision. This has proved especially important for Slovenia, where poor governance of major domestic banks was a primary cause behind the domestic banking crisis in 2013. Being part of SSM put an end to irresponsible practices of Slovenian banks (e.g. unwillingness to recognise losses and concealing bad assets in their portfolios), which were described by Koyama, Y. (2015)[51].

Secondly, harmonized definitions in AQR bring consistency and uniformity into supervisory methods and enhance overall transparency of bank data. Better availability of transparent data on banks is favourable to investors and helps to create a better business environment[52]. Some positive spillovers from SSM are expected to spread to the Non-Eurozone States. For example, Poland has already started to run its national AQR as well as Stress Tests in parallel with those run by ECB for significant banks in Eurozone[53].

Thirdly, ECB's credibility brings additional confidence to the banking sectors of countries inside EBU. Bank stakeholders are assured that banks in SSM are well-regulated and financially sound.

Fourthly, EBU membership can over time mitigate or eventually eliminate the home-host coordination issues, which had been extensively documented in the past research[54].

Last but not least, as the CEE States share similar characteristics in their banking sectors and their banks are owned by practically the same group of parent banks, these countries share common interests vis-à-vis EBU. Active information sharing and consultations with EBU Members from CEE

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[48] Gassmann, P. et al. (2014). Original data came from ECB/EBA disclosures.

[49] Hudak, V. (2014) from the Slovak Ministry of Finance expressed Slovakia's overall support in building the Banking Union as a main tool to stabilize financial markets.

[50] Interview with Mr. A. Vilks, Latvian Finance Minister (*The Banker*, July 2013, p.10).

[51] See Koyama, Y. (2015), pp. 310-321 for concrete problems in Slovenian banking system prior to 2013.

[52] Quoted from Hudak, V. (2014).

[53] Lehmann, A. et al. (2014).

[54] Baltic States are in a unique position in the sense that their banks which are under direct ECB's supervision have parent banks in countries outside SSM (Sweden, Norway). Some potential vulnerabilities are shown in Table 12, yet it is too early to evaluate whether these vulnerabilities can be mitigated over time. The merger of Norwegian DNB and Swedish Nordea in August 2016 which led to establishing the Headquarters of the new merged bank in Estonia has been perceived as a positive challenge for Estonian supervisors who will supervise it in cooperation with ECB (Press Releases from Estonian Financial Supervision Authority).

could help Non-Eurozone CEE States to influence home-host competences within the EBU[55].

We can conclude that the experience of Eurozone CEE States with being EBU Members could indeed positively motivate the Non-Eurozone CEE States to join the EBU. There is, however, an important point to remember. EBU has also been regarded as the biggest cession of sovereignty since the launch of Euro. Therefore some Non-Eurozone States can be concerned about the loss of national sovereignty in banking supervision. Unless there are significant benefits in EBU Membreship outweighing such loss of sovereignty in supervision, Non-Eurozone States are likely to be hesitant about joining. Let us re-visit this issue in Section 3.

### 2.3 Latest developments concerning SSM and SRM

Since 2014, CA by ECB has been regularly conducted. Table 2 provides details of the CA in 2015 and 2016 and is supplemented with Tables 5 and 6, which show the evolution of CET1 ratios for the individual banks which were subject of CA in each respective year. First, the number of banks with capital shortfall has been clearly decreasing. Situation of banks in Eurozone has evidently become more stabilized- in general, banks have become better capitalized. The average CET1 ratio for significant banks increased from 11.3% (end-2014) to 14.6% (end-2017) and the overall NPL ratio decreased from 7.6% to 4.9% over the same period[56]. Second, Novo Banco stands out in the 2015 CA results as a bank with a very high capital shortfall, but its case is special. Novo Banco (whose name means literally "new bank") was created in 2014 by Portuguese authorities as a result of resolution measures taken for the Portuguese Banco Espirito Santo, which failed in 2014[57].

Table 7 lists bank performance indicators for selected Greek and Italian banks which failed the 2014 CA. We can see huge decreases in ROE of all 3 Greek banks and also in the case of 5 Italian banks in this Table. NPL ratios are extremely high for all 3 banks and relatively high in all Italian banks in this Table, except for Banco Popolare di Milano. After 2016 NPL ratios of these banks have showed some signs of improvement. How can we explain the situation of these banks and what has been the response by ECB? Let us first look at the situation in Greek banks.

ECB is committed to the implementation of all necessary policy actions needed to restore financial stability and to strengthen the viability of the Greek banking system. Therefore, besides the 2015 CA, ECB (between June and October 2015) conducted a separate CA for 4 significant Greek banks (3 of these banks are in Table 7). This separate CA is based on the Memorandum of Understanding between Greece and the European Commission. As Greece still faces many severe macroeconomic problems, ECB raised the required minimum CET1 ratios for Greece as follows- for the AQR and the Stress Test baseline scenario minimum CET1 capital ratio should be 9.5% and for the Stress Test adverse scenario minimum CET1 ratio should be 8%. In other words, in light of the specificities of Greek economy, ECB adopted a very cautious approach and made stricter capital requirements for

[55] This was one of the conclusions of the Workshop "Eurozone and the Banking Union" which took place on 14 March 2014 in Prague and is documented in detail by Profant, T. et al. (2014).

[56] For details see: https://www.bankingsupervision.europa.eu/about/ssmexplained/html/stress_test_FAQ.en.html

[57] ECB (2015), *Note on the 2015 Comprehensive Assessment*, p.1 and https://ftalphaville.ft.com/2018/01/19/2197893/

Greek banks[58].

The case of Italian banks was well-documented by media in June-July 2017, as it showed for the first time how the new bank resolution framework in EBU works in practice. First of all, for 2 failed Italian regional banks (Veneto Banca and Banca Popolare di Vicenza), SRB decided that their failure would not have systemic adverse impact on financial stability and therefore Italy should address these banks' problems under Italian national insolvency procedures. In other words, if SRB decides that a bank is small in size and that there are no systemic risks, then the bank's resolution under BRRD (whose bail-in principle specifies that public funds could no longer be used to rescue failing banks and therefore the resolution costs have to be borne by creditors and shareholders) is not applied. Secondly, there was the case of Monte dei Paschi di Siena, Italy's 4th largest bank, when based on the BRRD's exception of the so-called "precautionary recapitalization" (which specifies that state aid can be given to a solvent bank), Italy chose to provide state aid to Monte dei Paschi Bank. These cases from 2017 at the same time illustrated that even if the SRM rules are clear, there is still some room for improvement. According to the SRB Head, Ms. Elke Koenig, the case of Monte dei Paschi showed that EU rules for state aid need more realignment with BRRD[59].

Last but not least, let us also mention the case of Banco Popular, a failed Spanish bank[60]. In June 2017, in reaction to the ECB statement, SRB decided the resolution of Banco Popular. Use of public funds was avoided, as Banco Popular was transferred to Banco Santander in Spain. Financial markets reacted positively to the SRB decision.

## 3. Is the European Banking Union attractive to the Non-Eurozone Member States?

Section 2 described how EBU at present helps to restore financial stability in Eurozone. Let us now focus on the future prospects of EBU, in particular in terms of its geographical coverage. Which Non-Eurozone States are most likely to join the EBU before their Euro adoption? Obviously, there are benefits and costs associated with joining the EBU prior to adopting Euro and this Section will explore them in detail[61].

### 3.1 Membership of the European Banking Union

There had been a broad spectrum of views on the ideal geographical coverage of the EBU before it was formally decided. As one of the EBU's objectives is to enhance integrity and stability in the whole Single Market for finances, and the EBA is a coordinator for all EU Members, it would have been logical and ideal to include the whole of EU (EU28) in EBU. Yet, this has proved politically impossible due to a strong opposition from certain members (notably the UK)[62]. As Elliott, J.D.

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[58] ECB (2015), *Aggregate Report on the Greek Comprehensive Assessment*, October, pp.1-7.

[59] Based on https://www.bloomberg.com/news/articles/2017-07-07/bank-disposal-chief-says-italy-aid-shows-flaws-in-failure-rules

[60] EPRS (2017), p.18.

[61] This section draws upon Hanada, E. (2017a, 2017b) and partly on Hanada, E. (2018) pp.219-220.

[62] See Quaglia, L. (2017), pp.9-11 and Onoe, S. (2014) pp. 134-139.

(2012) points out, there has been a consensus that all Eurozone members shoud be part of the EBU[63]. European Commission's proposal of the EBU consisting of Eurozone plus voluntary participants, which was adopted, has after all proved to be the most realistic option which is closest to the ideal coverage. Debate on the right geographical coverage of EBU shows that economic considerations in the EU cannot be separated from political realities.

EBU members are all Eurozone countries, which also implies that any country that adopts Euro in the future will automatically become an EBU member[64]. At the same time, EBU membership is also possible for voluntary participants from Non-Eurozone. To put it more precisely, Non-Eurozone States can join the EBU by establishing a close cooperation agreement. The option of joining the EBU prior to Euro adoption is in some literature referred to as "opt-in"[65]. In practice, this means participating in the SSM (close collaboration between the ECB and national supervisory authorities) and in SRM (representation in SRB and access to SRF together with the need to contribute to the SRF). Here we should emphasize again that the current EBU is not fully completed (lack of progress on EDIS). For the Non-Eurozone States, this may be a factor in favour of "wait and see" approach.

Only UK and Denmark have had permanent opt-outs from joining Eurozone, and Denmark has the right to join the EBU without adopting Euro. Remaining 7 Non-Eurozone States are required to join Eurozone (and thus become full EBU members) when they fulfill the qualifying Maastricht criteria[66]. Figure 5 shows position of each EU Member on the EBU. It is interesting to see that out of 6 Non-Eurozone States from CEE only two (Bulgaria and Romania) are positive about joining EBU.

### 3.2 Economies of the Non-Eurozone CEE States

In order to explore why most of the Non-Eurozone CEE States (Croatia, Czech R., Hungary and Poland) have chosen the "wait and see" approach, let us start by comparing the characteristics of the Non- Eurozone CEE States. Understanding these countries' current situation in terms of their economies and banking sectors will help us clarify the benefits/costs related to EBU membership. Slovenia, Slovakia, Estonia, Latvia and Lithuania that are also in CEE region have already successfully adopted Euro and are thus EBU members[67].

Overall economic performance has varied by country (Table 8). Poland stands out as the only

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[63] Elliott J.D. (2012) notes that IMF advocated for EBU at EU28 level and points out why EBU excluding any Eurozone members would not work. If fiscally weak states (e.g. Greece) were left out, they would be likely to experience a capital flight. If any of the core economies (e.g. Germany) were left out, this would have been seen as a sign of non-confidence in EBU. On the other hand, Carmassi, J. (2012) proposed to start with EBU at EU28 level with an opt-out to leave for those Members that disliked such approach (UK). Note that Pisani-Ferry, J. et al. (2012) and Wyplosz, Ch. (2012) are amongst a few critics of the current scope of EBU, claiming that adding Non-Eurozone volunteers into EBU could lead to risks and uncertainties (e.g. difficult coordination of liquidity policies by several central banks with differing currencies at funding crisis or potentially incompatible policy choices).

[64] HP of the Council of the EU (http://www.consilium.europa.eu/en/policies/banking-union/).

[65] IMF (2015).

[66] Sweden has an implicit agreement with the EU that the country cannot be obliged to join Eurozone until the referendum on Euro Membership is held. For further details see Moloney, N. (2014). Following the Brexit referendum vote of 23 June 2016, UK will leave the EU exactly 2 years later after the Article 50 was triggered (on 29 March 2017)- on 29 March 2019.

[67] Slovenia adopted Euro in January 2007, Slovakia in January 2009, Estonia in January 2011, Latvia in January 2014 and Lithuania became the 19th Eurozone country by adopting Euro in January 2015.

country retaining a positive GDP growth even amidst the Eurozone crisis. On the contrary, Croatia has experienced a lengthy recession with some improvements in the last 3 years[68]. Economic growth in other countries has in general resumed from 2014.

Each country began its transition process from a different starting point and owing to a different speed of progress in structural reforms and growth dynamics, we can observe varied patterns of catching up with the average GDP levels in EU28 (Figure 6). While the Czech Republic is in its GDP per capita very close to the EU average and the performance of Hungary and Poland places them in the upper range (65-70 compared to 100 for EU28), Croatia, Romania and in particular, Bulgaria had experienced only modest catching up and their GDP per capita remains at very low levels (below 60) in relation to EU28.

### 3.3 Banking Sectors of the Non-Eurozone CEE States

Banking sector of all CEE States (except for Slovenia) is dominated by foreign-owned banks (Figure 7)[69]. The ownership aspect affects issues such as coordination of supervision between host country and home country (parent bank's country), coordination in resolution (in case of bank failures) as well as funding structure and lending practices, most of which are directly or indirectly related to the EBU. CEE region is dominated by banks from Eurozone States (Italy, Austria, Germany, France, Belgium), while Baltic States are dominated by banks from Scandinavia (Sweden, Norway, Denmark). Most foreign banks in CEE are present in form of subsidiaries, while branches are less common. Large presence of banks from Eurozone is considered to be a motivating factor for joining the EBU[70].

In recent years, deposits became a dominant part in the funding structures of major banks in CEE (Figures 8 and 9). This is a positive development, since excessive reliance on financing from parent banks in several countries (Baltic States, Hungary) before the 2008-09 crisis is seen to have fuelled an unsustainable credit growth and was also seen as a risk factor causing deleveraging[71].

Let us now turn to the banks' capacities to absorb losses by examining their Capital Adequacy Ratio (CAR), overall bank profitability (ROE) and the quality of assets shown by NPL Ratio. We can see some differences in CAR ratios- they are high in Crotia and Bulgaria and slightly lower in Romania, followed by Poland, Hungary and Czech Republic (Figure 10). All countries in this sample

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[68] Koyama, Y. (2015) refers to Croatia as "second Greece" and explains how the pre-crisis aggressive financing by foreign-owned banks focused on non-tradables and consumption and caused unsustainable economic growth. Croatia experiences some deep structural problems too. See also EBRD (Transition Report), 2012 and *the Banker*, March 2014, pp.54-55.

[69] High foreign ownership of the banking sector is a common characteristics also in Non-EU States in Southern Europe. The share of foreign banks in total assets is over 80% in Bosnia-Herzegovina, Montenegro and Kosovo and over 75% in Serbia. In contrast, in Western Europe (except for Belgium) on average only 14% of total assets are foreign-owned (*The Banker*, March 2013, p.12).

[70] IMF (2013). Geeroms, H. and Karbownik, P. (2014) further elaborate that the presence of Eurozone banks will exert a strong and indirect pressure for Banking Union and makes it more difficult for these countries to justify their hesitations to join the EBU.

[71] Differing funding structure resulted in varied Loan to Deposit (LTD) ratios. For details on different funding structures and extent of deleveraging process in CEE see Banincova, E. (2010a) and Banincova, E. (2012). Jocicne, A. (2015) notes that Euro adoption acted as a big impetus for deposit growth in the Baltics.

are sufficiently capitalized as their CAR exceeds the minimum requirement of 8%[72]. Czech Republic, Poland and Bulgaria show a steady pattern in ROE of their banks, while banks' ROE in Romania, Hungary and Croatia shows a high degree of volatility (Figure 11). Decreases in ROE in Croatia can be mainly attributed to deterioriating asset quality and low credit demand during economic recession, while the high volatility of ROE in Hungary is thought to be caused by a bank levy as well as by a forced conversion of Swiss Franc-denominated loans into Hungarian Forint (at an artificially low exchange rate)[73]. NPL Ratios in Czech R. and Poland have remained at very low levels, while they were at higher levels in other 4 States (Figure 12). NPLs in all States have peaked in 2013-14 and now follow a downward path, even if we can see some differences among these States in the overall downward trend. The afore-mentioned forced conversion of foreign currency loans into Forint has contributed to the improvement of NPL ratio in Hungary. It should also be noted that Romania's NPL figures are overestimated due to a stricter definition used for NPLs in this country[74].

In order to further inspect the banking developments in CEE, we show selected bank performance indicators for 2 major banks from each country in Tables 9 and 10 (we add indicators for one bank from each Eurozone CEE State for a comparison). We can observe Tier 1 capital decreases for some banks in certain years (e.g. Romanian BCR and Hungarian K&H and OTP), however we cannot find any distinguishing pattern. Tier 1 capital decrease means that banks absorb losses which is accompanied by a decrease in profitability (ROE) and we can see this in cases of Romanian BCR in 2014 and in Hungarian K&H in 2014[75]. Data on NPLs in Table 10 complement country data in Figure 12: relatively high NPL ratios in Croatia, Hungary and Romania show a decline after 2014.

Our data shows that Czech and Polish banking sectors have more stable indicators than Romania, Croatia, Hungary and Bulgaria. This could be part of the reason why the first two countries do not consider joining the EBU to be their priority, while EBU membership is more attractive to Romania and Bulgaria. However, it is unclear why Croatia and Hungary (unlike Romania and Bulgaria) chose a cautious approach to EBU[76]. Let us therefore examine some other factors.

### 3.4 Governance Indicators of the Non-Eurozone CEE States

Ensuring the rule of law is one of the Copenhagen criteria that are required for EU Membership. Bulgaria, Romania (which both joined the EU in 2007) and Croatia (joined the EU in 2013) are considered "latecomers" to the EU, compared to Hungary, Poland and the Czech Republic that all joined the EU in 2004. Do these "latecomers" actually lag behind in their governance indictors? We can see a clear divergence between Czech Republic, Poland, Hungary on one hand and Bulgaria and Romania on the other, in terms of the government effectiveness. Interestingly, Croatia is very close to

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[72] Basic requirement remains at 8%, but due to the implemented CRDIV and CRR, new minimum share of Tier 1 capital and the share of Common Equity Tier 1 (CET1) capital were raised. CRD also demands additional buffers (European Commission).

[73] *The Banker*, August 2016, pp.20-25, *The Banker*, March 2015, pp.36-38 and HP of MNB (Magyar Nemzeti Bank).

[74] As pointed out by the Governor of National Bank of Romania, Mr. Mugur Isarescu (*The Banker*, October 2014).

[75] If there is an increase in loan provisions and in impairment charges (losses on loans), ROE decreases.

[76] Our comparison yields similar results to Mero, K. and Piroska, D. (2016), however their analysis excluded Croatia and looked at slightly different years.

the first group and not to Bulgaria and Romania (Figure 13). As for the rule of law, we can see a distinguishing pattern which more or less corresponds with our above-mentioned assumption that the "latecomers" lag behind other EU Members from CEE in terms of governance (Figure 14).

Governance is relevant to EBU, because weak governance (amongst others) implies a weak protection of creditors' rights which can cause instability in banking[77]. Harmonized rules for banking sector and their consistent application belong to the aims of EBU, therefore EBU should, generally speaking, be more attractive to countries with weaker governance (Croatia, Bulgaria and Romania).

### 3.5 Non-Eurozone CEE States and their prospects of Euro adoption

Besides bank and governance indicators, each country's policy preferences are expected to play a role in its stance towards EBU. Post-crisis EU has seen an increase in Euroscepticism in several Member States. If there is a low support of the EU and low trust in the EU institutions amongst the general population, leading political parties (chosen in general elections) will tend to reflect these attitudes and will resist calls for a stronger economic and political integration in the EU. We should also note that CEE States have recently seen a divide in opinions between politicians on one side and central banks/regulators on the other side[78].

Bulgaria and Romania seem to be most supportive of the EU, while the Czech Republic proves to be the most Eurosceptic (Figure 15). Support for the EU has recently declined in Hungary, which is probably due to the political tensions between the Prime Minister Orban's government and the EU. Poland remains fairly supportive of the EU. Croatia was not a Member of the EU during crisis years (2008-09), which makes it harder to evaluate its stance towards the EU.

Non-Eurozone CEE States are in a position where they face the choice: is it advantageous (or not) to join the EBU before adopting Euro? Geeroms, H. and Karbownik, P. (2014) point out that joining the EBU is ideal as a first step on the path towards Euro adoption and that joining the EBU is much easier than Euro adoption for which a set of criteria (Maastricht Criteria) must be fulfilled. With a few exceptions, convergence indicators for these 6 CEE States in general do not exceed the required reference value, which suggests a relatively high degree of convergence with Eurozone (Table 11). However, none of these countries' currencies participate in the ERM II and there are still pending issues in compatability of their national legislations. Out of these 6 CEE States, only Romania has previously indicated its Euro adoption target[79]. Euro adoption also requires political will and common stance of both central bank and Ministry of Finance that the economy would benefit from joining the Eurozone. However, as retaining independent monetary policy and flexible exchange rates is still seen as an economic advantage in most of these countries, none of these countries is

[77] Croatian National Bank indeed points out that, for example, dealing with NPLs is hindered by legal problems and overall insufficient support in legal environment (CNB's paper "Repairing Balance sheets and other challenges- the case of Croatia and other CEE countries"). In addition, bank runs which Bulgaria has recently experienced were politically linked and caused Bulgaria to change its position vis-à-vis Banking Union from a cautious approach to a positive stance in July 2014, as we explain later.

[78] See *The Banker*, August 26, p.24 for an interesting account of the subject (e.g. different stances in Poland, Croatia and Romania regarding mandatory conversion of foreign currency loans into local currency were documented).

[79] For details see European Commision HP (https://ec.europa.eu/info/business-economy-euro/euro-area/euro/eu-countries-and-euro/).

likely to adopt Euro in the near future[80].

Finally, let us explain the official standpoints of these countries regarding the EBU, which should shed light on perceived benefits and drawbacks stemming from the EBU membership.

### 3.6 Motivation of the Non-Eurozone CEE States to join the European Banking Union

Here we highlight the perceived benefits of EBU from the perspectives of Bulgaria and Romania.

Bulgaria experienced two bank runs, which affected the country's motivation to join the EBU. In July 2014 Bulgaria officially announced its willingness to join the EBU. Clearly, expectations of improved supervision standards and more efficient crisis prevention under SSM played a big role.

The bank runs unfolded as follows. First, in June 2014, CCB (Corporate Commercial Bank), 4th largest Bulgarian bank in terms of assets, experienced a sudden run on deposits after some political instability. Then, 3rd largest bank in terms of assets, FIB (First Investment Bank) also experienced a run on deposits, this time due to a deliberate, systemic criminal attempt to disrupt the banking system[81]. These bank runs were mostly politics-related; however, they caused some instability in Bulgarian banking and to a certain degree foreign-owned banks in the country (like UniCredit Bulbank) experienced a "flight to quality", i.e. depositors removing deposits from CCB and FIB to foreign-owned banks which they perceived to be safer. At the same time, Bulgaria's case revealed another weakness in the form of insufficient local fiscal backstops. National Bank DGF (Deposit Guarantee Fund) was short of funds when trying to cover depositors from CCB. The whole issue was further complicated by the resignation of Bulgarian government and Parliament's dissolution soon after the bank runs; and European Commission urged Bulgaria to repay guaranteed deposits to savers as soon as possible. Such developments seriously eroded confidence in Bulgarian banking system. Therefore, Bulgaria's main motivation to join the EBU was to implement an effective crisis prevention and resolution system, which would be possible within SSM and SRM. In addition, following the bank runs and political turmoil in 2014, Bulgarian banks are in strong need of a credible external assessment which would be part of ECB's Comprehensive Assessment once the country is a Member of the EBU[82].

Reviewing Romania's official stance on the EBU reveals that one of the main incentives for this country is removing incentives for banks to deleverage[83]. Besides limiting deleveraging, Romania

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[80] Evaluating prospects of Euro adoption in these CEE States is beyond the scope of this Paper. Koyama, Y. (2016) explores the subject in great detail. We should note that Romania's roadmap for 2019 Euro adoption was not well developed, therefore adopting Euro in 2019 is not possible. Motivations for Euro adoption are discussed for example in *The Banker*, January 2013, pp.74-78 and *The Banker*, March 2015, p.24.

[81] Cristova- Balkanska I. (2014) and *The Banker*, September 2014, pp. 86-88 provide details. Confrontation between a politician and the CCB main shareholder caused depositors' panick. CCB Bank is thought to have been involved in related-party lending. In the case of FIB, criminals used emails and social networks to urge people to withdraw their money due to the bank's alleged instability.

[82] As stated by Mr. Chobanov, Bulgarian Finance Minister at that time, *The Banker*, September 2014, 86-88. However, when Bulgaria joins the EBU (and thus SRM), it will only be able to use funds from SRF after 2024 when this common fiscal backstop becomes available. Prior to 2024, national compartments of SRF will continue to build up and their mutualization will be gradual.

[83] Deleveraging refers to foreign banks reducing their exposure to markets they deem risky and the whole CEE region experienced some degree of deleveraging after the 2008-09 Eurozone crisis and the subsequent Sovereign Debt Crisis. Yet, deleveraging in CEE varied a lot by each country and overall remained at modest levels compared to the troubled economies in Southern Europe.

perceives other four benefits of EBU. First, it is advantageous to join the EBU soon, without waiting until Euro is adopted. There are clear benefits in joining, such as exerting influence on decision taking within EBU and getting first-hand experience, instead of being a passive outside observer. Second, large presence of Eurozone banks makes joining the EBU a natural choice, in Romania's view. Third, through EBU the host/home coordination issues could be mitigated or even eliminated[84]. As the largest foreign-owned subsidiaries in CEE usually qualify to be significant banks, similarly to the parent banks in their home country, ECB's centralized direct supervision of both (host and home) should rebalance and solve the home/host coordination issues. Fourth, there are high costs of non-participation for a country like Romania- in the event of crisis or bank failures, being outside SRM would make Romania more vulnerable to contagion and local resources for crisis resolution would most likely be insufficient[85].

It should be added that significant benefits of EBU for financial stability have also been recognized by Denmark. Even though the country has a permanent opt-out for Euro, Danish Central Bank was very quick to identify benefits from EBU[86].

### 3.7 Concerns of the Non-Eurozone CEE States about joining the European Banking Union

Let us now examine the rationale behind the "wait and see" approach towards the EBU which we can see in the remaining 4 Non-Eurozone CEE States.

The Czech Republic explains its cautious stance towards EBU by these 3 main reasons. First, the Czech banking system has proved to be stable and has very limited contagion channels. Economy is competitive and operates well under the flexible exchange rate. Czech authorities feel competent in exercising their supervision of foreign banks' subsidiaries. Therefore, there is no sense of urgency to join the EBU and the issue is not frequently on the agenda of the Czech political discourse. Second, it remains to be seen whether the centralized supervision under SSM would be better than the current supervision by the Czech National Bank. Third, there are still some untested areas within EBU. Polish position on EBU reflects very much the Czech one and in general, sceptical opinion on EBU seems to prevail at relevant government authorities. Poland also voiced these additional concerns. Firstly, participation in decision-making within SSM gives advantage to Eurozone states, which is inadequate. Poland strongly supports equal participation in decision-making process of SSM. Secondly, Poland was concerned that under SRM there would be imbalance between powers of host and home countries (with home countries' authorities having excessive powers, while at the same

[84] The so-called "home-host coordination problem" is relevant in all CEE States, as local subsidiaries of foreign-owned banks (in most cases) tend to be systemically important in host countries, but not important in the home country of the foreign bank. This led to some conflicts of interest in the past (inadequate information sharing between home and host; inability of the host to influence parent bank's lending towards subsidiary; and notably in the time of crisis, a complicated crisis management and home/host conflict regarding sharing resolution costs). See D'Hulster, K. (2012) for a detailed explanation of the home/host supervisors' conflicts.

[85] Based on Caramidariu, D.A. (2014), Georgescu, O.M. (2013) and comments by the Governor of Romanian National Bank, Mr. Mugur Isarescu in *The Banker*, October 2014.

[86] At one point, Denmark was seen as possibly the first Non-Eurozone candidate to join the EBU. For Danish view of benefits from joining EBU, see Danmarks National Bank (2014). In July 2017 Danish government decided to launch a review which should prepare for a final decision on Danish participation in the EBU in autumn 2019 (https://em.dk/english/news/2017/07-04-banking-union).

time financial responsibilities in terms of bank resolution would be left at national level). Thirdly, Poland pointed out that decision-making process in SRM is complicated and the fact that Non-Eurozone CEE joining the EBU do not have access to fiscal backstops and liquidity support from ECB is seen as a major drawback[87].

Governor of Croatian National Bank, Mr. Boris Vujcic noted a similar stance of his country, saying that "Decision to enter into a close cooperation within the Banking Union will hinge on the weight assigned to the equal treatment of member states, irrespective of their Euro area membership"[88].

Hungary's stance, according to Kisgergely, K. et al. (2014), reflects a similar attitude: first, it is considered risky to join new mechanisms which have still incomplete and untested organizational structures; second, as the Hungarian national supervision and resolution fund are considered credible, there is no need to transfer national powers in these areas to supranational level. In addition, Mero, K. and Piroska, D. (2016) give examples of current Hungarian policies that promote national interest in banking ("banking nationalism") and conclude that this type of policies clearly defines Hungary's interest outside the EBU.

It is understandable that as EBU is relatively new and many of its policies and mechanisms remain largely untested, some of the above-mentioned concerns stem from perceptions, rather than from confirmed and well-established facts. As Belke, A. et al. (2016) points out, there are certainly many benefits of joining the EBU, however, as some of its elements are still incomplete, drawbacks of joining the EBU now appear to be more tangible. This could partly exlain why most Non-Eurozone CEE States are hesitant about joining.

Finally, we should add two more observations. Even if Croatia, Czech Republic, Hungary and Poland are currently not motivated to join the EBU, these countries are inclined to reconsider their stance. Kisgergely, K. et al. (2014) explains this from Hungary's viewpoint- if more than one country of these Non-Eurozone CEE States with "wait and see" approach decides to join the EBU, market pressure on Hungary to do the same would most likely increase. The same study also points out that the stance of Poland (as the largest CEE State) is especially influential in this regard. Second observation to add is that a stable banking system with credible supervision should not lead to complacency and underestimating potential sources of risks[89]. For instance, collapse of SK Bank in Poland in 2015 came as a big surprise in this country with a stable banking, as it was the first time in 15 years that Poland has experienced a bank collapse.

## 4. Remaining Challenges for the European Banking Union

Section 3 showed that Non-Eurozone CEE States voiced several concerns regarding the EBU. Let

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[87] Profant, T. et al. (2014), Press releases by Czech National Bank, IMF (2015) and *The Banker*, October 2014.

[88] Croatian National Bank (https://www.hnb.hr/en/-/bankovna-unija-ostvarenja-i-izazovi). Governor concluded that Croatia is in no hurry to opt in the EBU before Euro adoption, as the country has to protect its specific interests in the given environment.

[89] Comments by Governor of the Swedish Central Bank and Chairman of the Basel Committee, Mr. S. Ingves (*The Banker*, January 2012, pp.80-81). Experience with the Nordic crisis in the early 90s and guiding other regions hit by financial crisis revealed that after the crisis some bankers and supervisors in countries not heavily affected by the crisis tend to become complacent. However, factors leading to the crisis are not only specific to the most affected countries.

us first examine whether three main concerns have been adequately addressed. After that we will discuss the remaining challenges of EBU from the perspective of financial stability.

In order to have a consistent, deeply integrated Single Market in finances, it would be ideal if EBU covered the whole of EU (EU28). EBU will have more members, when the Non-Eurozone States adopt the Euro at some point in the future, or when some Non-Eurozone States voluntarily join the EBU even prior to the Euro adoption. It is welcoming to see that the European Commission's President, Mr. Jean-Claude Juncker has expressed his support in this regard[90]. Concerns raised by Non-Eurozone States regarding the EBU therefore need to be addressed to make joining EBU more attractive for these States. In order to have EBU in its optimal form, we believe that the concerns raised by Non-Eurozone States should be addressed and if possible, some solutions should be found.

First, there is the issue of limited influence of Non-Eurozone States on decision-making in SSM, because Non-Eurozone States that join the EBU would not have a seat in the ECB Governing Council (highest decision-maker in SSM), in which only Eurozone States can have a seat. This concern has already been partly addressed by allowing Non-Eurozone States to participate in ECB's Supervisory Board (which manages supervision and makes draft decisions) and also by changing the voting procedure in the EBA into a double-majority system, which means that now a dual majority from both Eurozone and Non-Eurozone Members is required for implementing decisions. Therefore, concerns of Non-Eurozone States about their limited influence and under-representation have been at least to some extent mitigated. Naturally, this issue can only be fully mitigated by joining the Eurozone[91].

Second, Non-Eurozone States criticized the complicated decision-making process in SRM- the complex relationship between BRRD and SRM could lead to a complex decision-making for resolutions. However, there has been some progress and most of the relevant rules in SRM have been streamlined[92]. Belke et al. (2016) proposed to reduce the number of EU institutions involved in SRM decision, but concluded that due to political constraints this is unlikely to happen.

Third, no access to fiscal backstops and liquidity support from ECB for Non-Eurozone Members has been Poland's major concern. IMF (2015) explains that Non-Eurozone members of EBU are not able to access liquidity provision by the ECB and can only be granted liquidity via repo or swap line under certain conditions. In addition, non-Eurozone EBU members cannot receive funds for direct bank recapitalization from the ESM, as the ESM Treaty is only open to Eurozone States. There is not enough room to maneuver in addressing this issue. Changes in the ESM Treaty would be needed to ensure equal access, which, however, cannot be expected due to political constraints. There has been

[90] In part "More United Union" in his Speech, Mr. Juncker proposed to create a Euro-accession Instrument for offering technical and financial assistance to Non-Eurozone States that wish to adopt Euro. He also said that the EU should encourage all EU Members to join the Banking Union (President Juncker's State of the Union Address, European Commission Speech on 13 September 2017 on https://ec.europa.eu/commission/priorities/state-union-speeches/state-union-2017_en).

[91] Belke et al. (2016), pp. 25-26 gives a detailed list of "Possible ways of mitigating the most important risks of opting-in". More details are given in IMF (2015) and Quaglia, L. (2017). It should be noted that the double-majority voting procedure in EBA will end as soon as the number of non-Banking Union Member States is reduced to less than 4. Moreover, there is also a safeguard to EBU that means that it is possible to exit the EBU after a Member State has presented a "reasoned disagreement".

[92] See Dullien, S. (2014) for details.

no change- only limited liquidity support (via swap lines under certain conditions) is currently available to Non-Eurozone States if they join the EBU. This issue can only be mitigated if a Non-Eurozone State adopts Euro.

Let us now explain the two main challenges of EBU from the perspective of financial stability.

Firstly, due to the lack of political will there has been lack of progress with the EBU's third pillar, EDIS, which would be a unified, Eurozone-wide Deposit Guarantee Scheme. Some opposition came from Germany mainly due to concerns that German taxpayers would have to pay for bank bailouts in other Eurozone States if EDIS is implemented[93]. The Five Presidents' Report from 22 June 2015 proposed to establish EDIS in the longer term. Then, on 24 November 2015 European Commission proposed a 3-phased approach for moving from national DGS towards EDIS. In the Commission's proposal EDIS is envisaged for 2024[94].

Is EDIS absolutely necessary for the EBU? Onoe, S (2014) and Castaneda, J. et al. (2016) point that Eurozone banking system cannot be truly integrated and the Eurozone would not be able to completely break the vicious circle of banks and sovereigns until EDIS is implemented in EBU. The EU therefore has to adopt a really proactive approach towards establishing EDIS and the cooperative stance of Germany in this regard will be crucial.

Can we from now expect more progress on EDIS? There are some reasons to be optimistic[95]. The EU's Economic and Financial Affairs Council (Ecofin) in its June 2016 Conclusions agreed that political negotiations on EDIS would start as soon as there is sufficient progress made on measures to reduce risks in the banking system. Carmassi, J. et al. (2018) explain that Germany's ongoing concerns regarding the unfair cost-sharing under EDIS may not in fact be well-founded[96].

Secondly, another reason why the current EBU is not yet fully-fledged is that SRF currently has no Eurozone-wide fiscal backstop (the so-called common backstop) which would be sufficient to provide capital if needed for maintaining financial stability. SRF will be fully mutualized at the European level in 2024, but until then the intergovernmental treaty requested some fiscal backstop to support SRF. The current SRM arrangements specify that if there is a debt crisis in an EBU Member State, banks in that Member State can be directly recapitalized through the ESM. This means that ESM is de facto the common backstop in the current EBU. Yet, this is not ideal for three reasons. First, ESM is only available to Eurozone States. Second, the criteria which need to be fulfilled before using ESM are very strict. Third, the current arrangement implies that at least until 2024 costs of resolving troubled banks will be borne by each individual Member State concerned (or more precisely, by the

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[93] Germany's concern regarding the cost of other countries' bank bailouts was highlighted by an open letter by 172 German economists dated 5 July 2012. Interestingly, the protest letter was criticized by influential newspapers (Financial Times and The Economist) and prompted a response by a group of economists who defended the EU plan for Banking Union. This response became known as "Manifesto for a banking union by economists in Germany, Austria and Switzerland" (dated 9 July 2012).

[94] European Commission's Press Release on 24 November, 2015 (http://europa.eu/rapid/press-release_IP-15-6152_en.html).

[95] Mr. P. Hakkarainen (Member of ECB's Supervisory Board) on 19 June 2018 pointed that "It looks possible that we can soon see progress on this crucial dossier" (https://www.bankingsupervision.europa.eu/press/speeches/date/2018/html/ssm.sp180619.en.html).

[96] The paragraph is based on Carmassi, J. et al. (2018), pp. 1-10. Germany's ongoing concern about the risk that under EDIS "banking sectors in one Member State would have to pay for bank failures in other Member States" is called "cross-subsidisation". Carmassi, J. et al. (2018) propose for example risk-based contributions to EDIS.

national resolution funds of an individual Member State)[97].

We can conclude that the current EBU, as it is not yet fully-fledged, still has to progress more to reach the position when it will be able to achieve one of its main goals- breaking the vicious circle between banks and sovereigns[98]. At the same time, the EBU in its current form, with centralized financial supervision, regulation and with a unified resolution framework, has been a remarkable achievement, which is undoubtedly a right step towards restoring a financially stable and fully integrated Eurozone.

Furthermore, EBU can also help to foster the European financial integration in two ways. If the EU creates sufficient incentives to motivate the Non-Eurozone States to join the EBU, integration of the single financial market in the EU will be considerably strengthened. In addition, as the Five Presidents' Report from June 2015 showed, EU is committed to launching Capital Markets Union (CMU). EBU and CMU are complementary to each other. CMU, which would encompass the whole of EU (EU28), promotes access to sources of non-bank finance, therefore the main positive effects of CMU are diversification of financing sources and facilitating the access to finance.

## Conclusion

We have examined the latest developments in the European Banking Union (EBU), its role in restoring financial stability and the remaining challenges in terms of design and implementation. EBU is without doubt one of the most remarkable achievements in the post-crisis EU and as such, EBU represents a vital component of the comprehensive reform process towards a genuine Economic and Monetary Union. EBU represents the biggest transfer of national sovereignty since the launch of Euro. Under the unified and harmonized financial supervision, regulation and resolution, EBU assures a high standard of supervision, level playing field for banks and as it enables early crisis prevention, the probability of bank failures is greatly reduced. EBU also ensures that the cost of any future bank failures is minimized. The Paper gave some concrete examples of how the financial stability of Eurozone is strengthened through the SSM and SRM and we paid utmost attention to include the latest relevant data. One novelty of our Paper was its detailed account of both Eurozone and Non-Eurozone States from CEE. Through this account we demonstrated the trade-off between benefits and costs from joining the EBU for the Non-Eurozone CEE States, and highlighted the benefits of being an EBU Member, as perceived by the Eurozone CEE States. We can conclude that EBU in its current form operates well, but only a fully-fledged EBU would allow for a complete protection of European bank markets from any future systemic bank crisis. Clearly, a more proactive approach should be taken at the EU level towards establishing EDIS. Our Paper showed that not only economic, but also political considerations play a big role in constructing EBU. In order to tackle

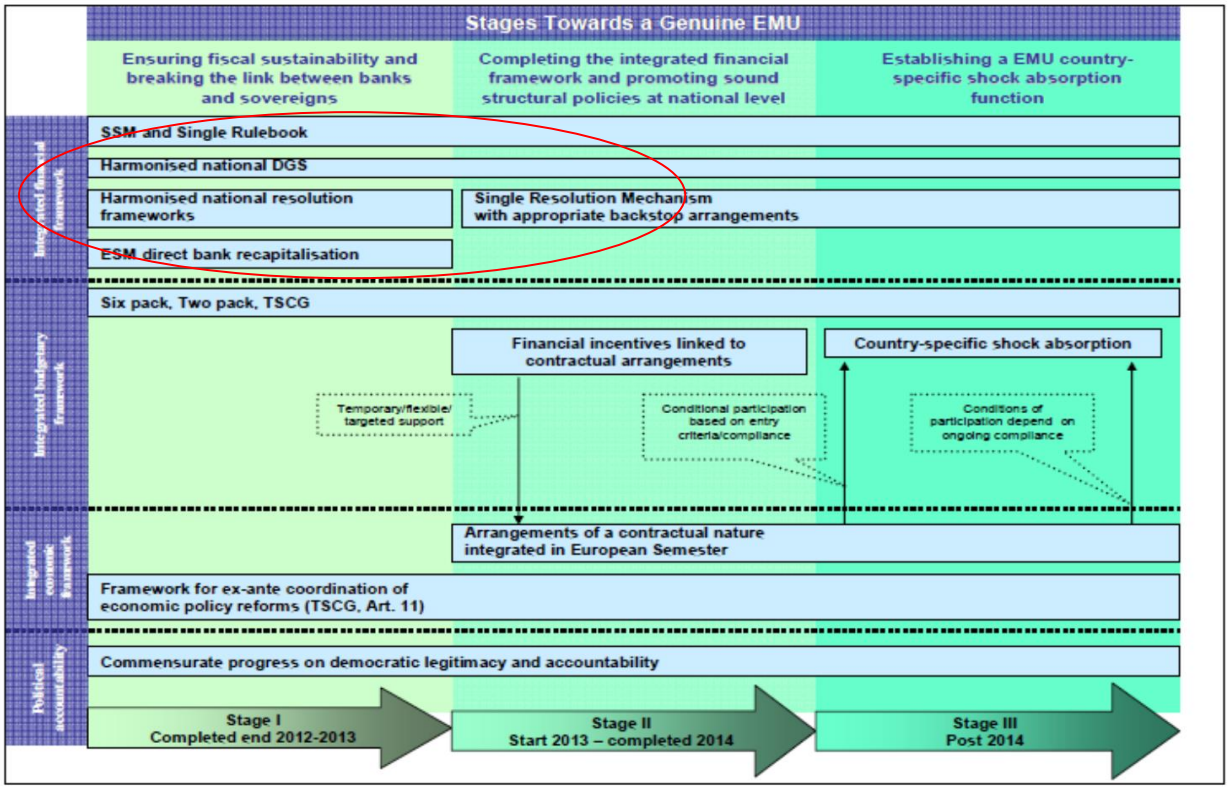
[97] This and the following paragraph draw upon Onoe, S. (2014), IMF (2015) and Hanada, E. (2018) p.223.

[98] Matthijs, M. and M. Blyth (2014) on p.229 quote economist R. Herring, who argued that without a more genuine SRM and common deposit insurance, Banking Union is "a one-legged stool" that is unable to break the toxic relationship between ailing banks and weak sovereigns, as was the case in Southern Europe and Ireland.

the remaining challenges, more progress is therefore needed at the political arena as well.

Finally, we list several directions for future research based on this Paper. The connection between EBU and the Fiscal Union envisioned by the EU needs to be examined. We also need to look closely at the complementary relationship between EBU and CMU. Another extension of this Paper will be to examine the relationship between EBU and Monetary Policy in the Eurozone. This Paper focused on Non-Eurozone States in CEE, but future research should also study the perspectives of Denmark and Sweden regarding their prospects of joining the EBU. Similarly, a close analysis of the home/host coordination within the EBU should also be the subject of future research, especially the special case of Non-Eurozone banks (from Sweden, Norway) operating in Eurozone (Baltics), which relates to the vulnerabilities listed in Table 12. Interviews with bank experts and national supervisors from both Eurozone and Non-Eurozone could shed more light on the Banking Union's impact.

Figure 1) Banking Union as an essential block in the process towards a genuine Economic and Monetary Union (EMU)



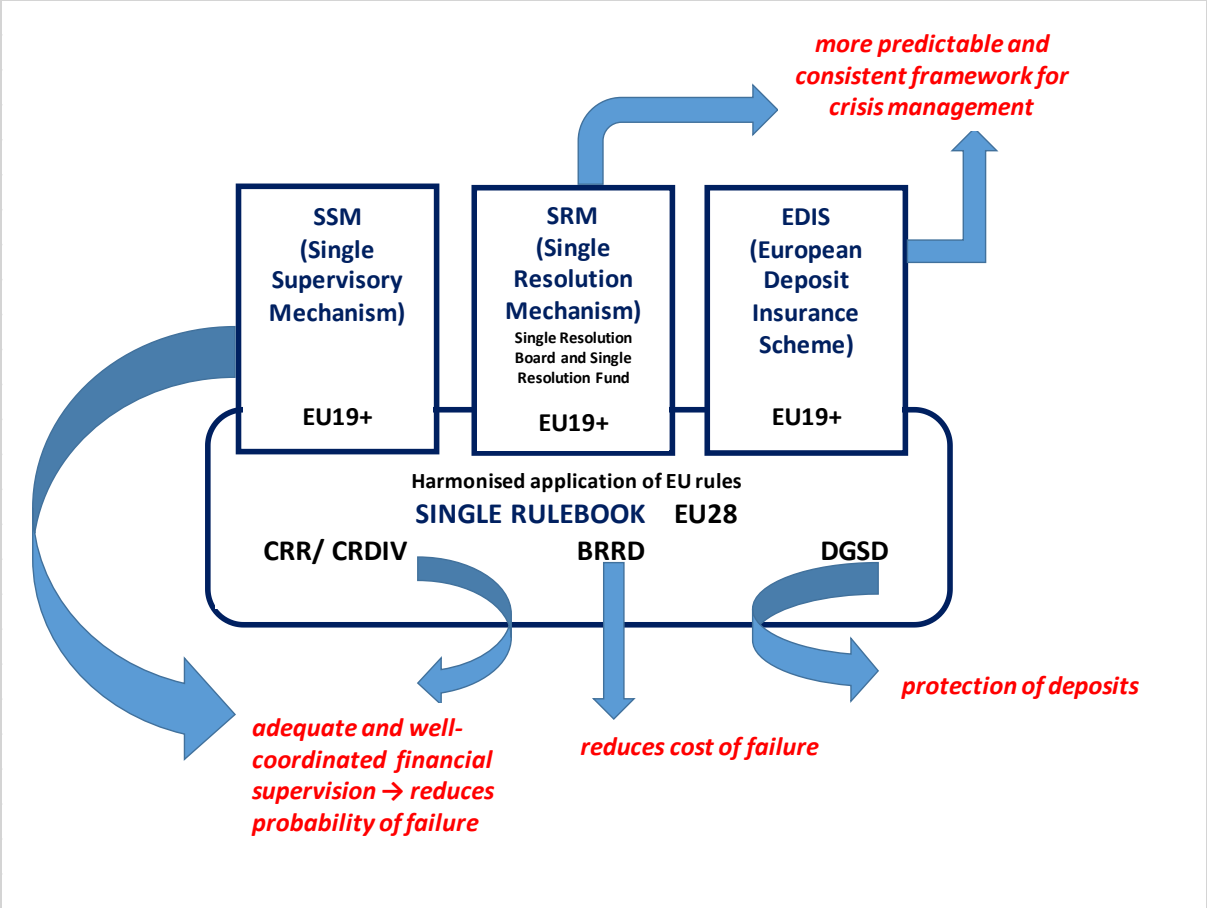

Source) Van Rompuy, H. et al. (2012), Annex, p.18.

Table 1) Key events in the process of establishing the European Banking Union

| | |
|---|---|
| 30 May 2012 | European Commission calls for a Banking Union |
| 26 June 2012 | European Council publishes the Report "Towards a genuine Economic and Monetary Union" |
| 29 June 2012 | Heads of State or Government in Euro Area decide to assign supervisory tasks to the ECB within a Single Supervisory Mechanism (SSM) |
| 5 December 2012 | The "Four Presidents' Report" sets out a detailed road map for the creation of a genuine Economic and Monetary Union (EMU)<br>(Four Presidents refers to the Presidents of the European Council, the European Commission, the ECB and the Eurogroup. The Report draws upon the Report from 26 June 2012) |
| 23 October 2013 | The ECB, together with the national supervisors, starts conducting the Comprehensive Assessment for 130 banks. |
| 3 November 2013 | SSM Regulation enters into force |
| 15 May 2014 | SSM Framework Regulation (which sets out the legal structure for the ECB's cooperation with national supervisory authorities within SSM) comes into force |
| 19 August 2014 | Single Resolution Mechanism (SRM) Regulation enters into force<br>(SRM Regulation sets out uniform rules and procedures for the resolution of banks) |
| 4 September 2014 | ECB publishes the list specifying significant credit institutions and the less significant banks in the Euro area |
| 26 October 2014 | ECB publishes results of the 2014 Comprehensive Assessment |
| 4 November 2014 | SSM becomes operational. ECB assumes its full supervisory responsibility for banks in the EU Member Statest that participate in the SSM. |
| 1 January 2015 | Lithuania adopts the Euro and joins SSM as 19th participating Member State. |
| 1 January 2016 | Single Resolution Board (SRB) becomes operational |

Source) https://www.bankingsupervision.europa.eu/about/milestones/html/index.en.html (accessed on 24 August 2018).

Figure 2) Main components of the European Banking Union



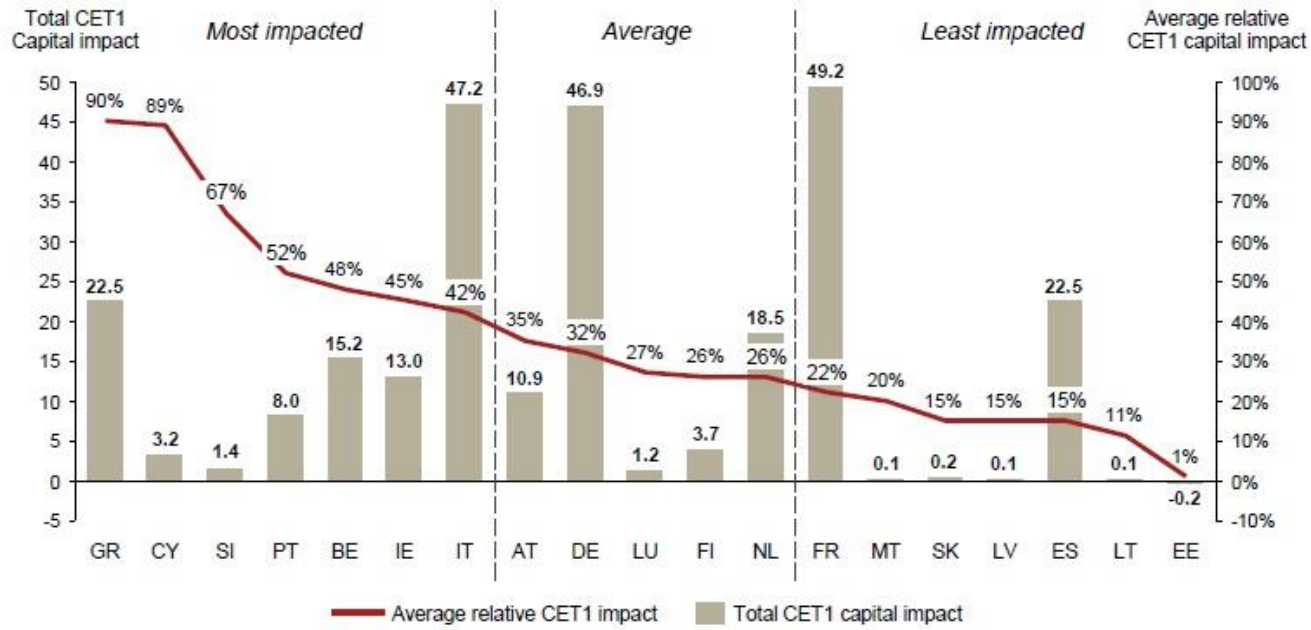

Note) EU28 indicates all 28 EU Member States. As a result of the national referendum from 23 June 2016, UK will cease to be an EU Member from 29 March 2019, therefore from that date the number of EU Members will be reduced to EU27. EU19 refers to the current number of Eurozone Members, while the plus index indicates that voluntary members from Non-Eurozone are able to join.
Source) Extrapolated from Rother, P. (2016) and Hudak, V. (2014) with several modifications by this Paper's Author.

Table 2) Overview of the Comprehensive Assessments (CA) conducted by ECB in 2014-2016

| | CA conducted in 2014 | CA conducted in 2015 | CA conducted in 2016 |
|---|---|---|---|
| Implementation period (start—results publication) | October 2013 —October 2014 | March 2015 —November 2015 | March 2016 —November 2016 |
| Scope:number of banks (countries) included in CA | 130 banks (19 countries)* | 9 banks (8 countries) | 4 banks (4 countries) |
| Number of banks with a capital shortfall | 25 banks** | 5 banks | 0 banks |
| Capital shortfall (total) | 24.6 billion EUR | 1.74 billion EUR*** | 0 **** |

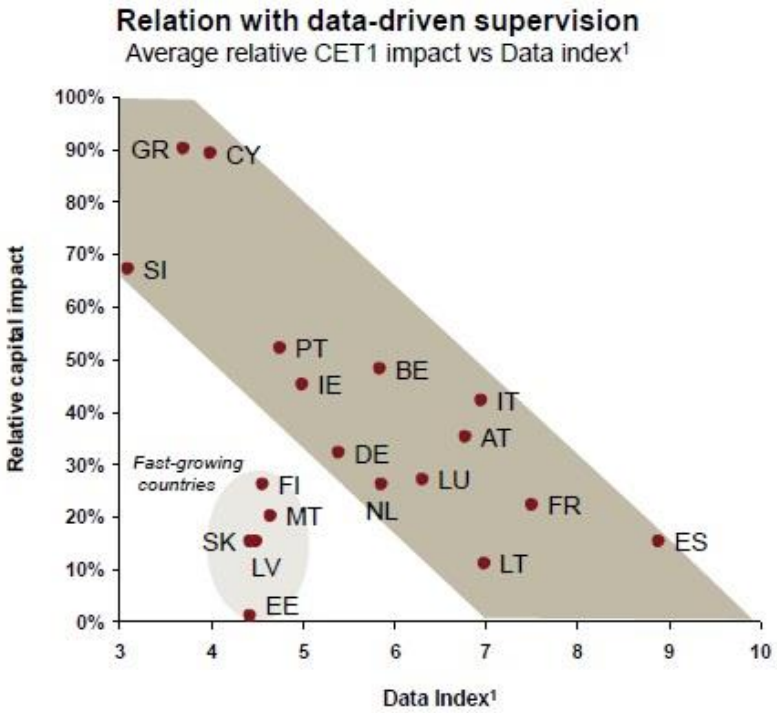
Note 1) *Stress test in the CA was conducted by ECB in cooperation with the European Banking Authority (EBA). The stress test implemented by the EBA included also some Non-Eurozone banks and some banks from the European Economic Area (EEA). For instance, the stress test implemented by the EBA in 2016 included 51 banks from EU28 and from the EEA.
Note 2) **Out of 25 banks, 14 raised additional capital before the Comprehensive Assessment results were officially disclosed. This reduced the capital needs of thoe banks with shortfall to 9.5 billion EUR.
Note 3) ***In addition, acting on behalf of the European Stability Mechanism (ESM) and based on the Memorandum of Understanding between the European Commission, Greece and the Bank of Greece, ECB between June and October 2015 conducted a Comprehensive Assessment (CA) of four significant Greek banks. This CA identified a capital shortfall of 14.4 bln EUR.
Note 4) ****Out of 4 banks, 3 consented to the disclosure of the CA results by the ECB.
Source) https://www.bankingsupervision.europa.eu/banking/comprehensive/ (accessed on 20 August 2018).

**Figure 3) ECB's 2014 Comprehensive Assessment: impact per country**




Note 1) GR=Greece, CY=Cyprus, SI=Slovenia, PT=Portugal, BE=Belgium, IE=Ireland, IT=Italy, AT=Austria, DE=Germany, LU=Luxembourg, FI=Finland, NL=Netherlands, FR=France, MT=Malta, SK=Slovakia, LV=Latvia, ES=Spain, LT=Lithuania, EE=Estonia. These are the 19 Eurozone Member States.
Note 2) Tier 1 Capital is considered to be the going concern capital. The highest quality of Tier 1 Capital is called Common Equity Tier 1 Capital (CET1) and it is the stricter version of the core Tier 1 capital in accordance with the Basel III Accord (based on definitions from the official home page of the Council of the EU, "Capital requirements for the banking sector").
Source) Gassmann, P. et al. (2014), Presentation slide 7. Original data for the presentation came from the ECB disclosure templates.

**Figure 4) Relation between Impact of Comprehensive Assessment (as measured by relative capital impact) and Data-driven supervision**




Note) Data Index is based on: intensity of off-site data analysis, formal authority of supervisor, internal credit register, standardised reporting requirements. The higher the Data Index, the more data-driven is supervision in the given country (i.e. supervisors apply frequent and in-depth off-site data analyses when they impose standardised reporting requirements).

Source) Gassmann, P. et al. (2014), Slide 10. Original data came from IMF reports on quality of banking supervision, IAS Plus Website, EBA website and ECB/EBA disclosure templates.

**Table 3) Comprehensive Assessment by ECB in 2014: Evolution of CET1 ratios (%) and resulting capital shortfalls**

| Bank (Country) | CET1 ratio* (starting point) | CET1 ratio after AQR | CET1 ratio baseline scenario** | CET1 ratio adverse scenario** | CET1 shortfall (in Euro Bln) |
|---|---|---|---|---|---|
| Eurobank (Greece) | 10.6 | 7.8 | 2.0 | -6.4 | 4.63 |
| Monte dei Paschi di Siena (Italy) | 10.2 | 7.0 | 6.0 | -0.1 | 4.25 |
| National Bank of Greece (Greece) | 10.7 | 7.5 | 5.7 | -0.4 | 3.43 |
| Banca Carige (Italy) | 5.2 | 3.9 | 2.3 | -2.4 | 1.83 |
| Cooperative Central Bank (Cyprus) | -3.7 | -3.7 | -3.2 | -8.0 | 1.17 |
| Banco Comercial Portugues (Portugal) | 12.2 | 10.3 | 8.8 | 3.0 | 1.14 |
| Bank of Cyprus (Cyprus) | 10.4 | 7.3 | 7.7 | 1.5 | 0.92 |
| Oesterreichischer Volksbanken- Verbund (Austria) | 11.5 | 10.3 | 7.2 | 2.1 | 0.86 |
| Permanent tsb (Ireland) | 13.1 | 12.8 | 8.8 | 1.0 | 0.85 |
| Veneto Banca (Italy) | 7.3 | 5.7 | 5.8 | 2.7 | 0.71 |
| Banco Popolare (Italy) | 10.1 | 7.9 | 6.7 | 4.7 | 0.69 |
| Banca Popolare di Milano (Italy) | 7.3 | 6.9 | 6.5 | 4.0 | 0.68 |
| Banca Popolare di Vicenza (Italy) | 9.4 | 7.6 | 7.5 | 3.2 | 0.68 |
| Piraeus Bank (Greece) | 13.7 | 10.0 | 9.0 | 4.4 | 0.66 |
| Credito Valtellinese (Italy) | 8.8 | 7.5 | 6.9 | 3.5 | 0.38 |
| Dexia (Belgium) | 16.4 | 15.8 | 10.8 | 5.0 | 0.34 |
| Banca Popolare di Sondrio (Italy) | 8.2 | 7.4 | 7.2 | 4.2 | 0.32 |
| Hellenic Bank (Cyprus) | 7.6 | 5.2 | 6.2 | -0.5 | 0.28 |
| Munchener Hypothekenbank (Germany) | 6.9 | 6.9 | 5.8 | 2.9 | 0.23 |
| AXA Bank Europe (Belgium) | 15.2 | 14.7 | 12.7 | 3.4 | 0.20 |
| C.R.H.- Caisse de Refinancement de l'Habitat (France) | 5.7 | 5.7 | 5.7 | 5.5 | 0.13 |
| Banca Popolare dell'Emilia Romagna (Italy) | 9.2 | 8.4 | 8.3 | 5.2 | 0.13 |
| Nova Ljubljanska banka (Slovenia) | 16.1 | 14.6 | 12.8 | 5.0 | 0.03 |
| Liberbank (Spain) | 8.7 | 7.8 | 8.5 | 5.6 | 0.03 |
| Nova Kreditna Banka (NKB) Maribor (Slovenia) | 19.6 | 15.7 | 12.8 | 4.4 | 0.03 |

Note 1) Banks are listed in order of the size of their capital shortfall.
Note 2) *CET1 ratio at year-end (as of 31 December 2014) for all participating banks. **For each scenario the final ratio is defined as the lowest CET1 ratio over the 3-year period (2014-2016) of the stress test.
Note 3) Threshold ratios applied for identifying capital shortfalls were as follows: a CET1 ratio of 8% for the AQR and for the stress-test baseline scenario, and a CET1 ratio of 5.5% for the stress-test adverse scenario. The same threshold scenarios were

applied in Comprehensive Assessments in subsequent years, i.e. 2015 and 2016.
Source) ECB (2014), Aggregate Report on the Comprehensive Assessment, October, pp.2-10.
https://www.ecb.europa.eu/pub/pdf/other/aggregatereportonthecomprehensiveassessment201410.en.pdf (accessed on 20 August 2018)

**Table 4) Results of Comprehensive Assessment in 2014 for significant banks in three Baltic States**

| B | Main results of the comprehensive assessment (CA) | | SEB LT | SEB LV | SEB EE | SW LT | SW LV | SW EE | DNB LT | DNB EE |
|---|---|---|---|---|---|---|---|---|---|---|
| B1 | CET1 Ratio at year end 2013 including retained earnings / losses of 2013 | % | 15.36 | 15.31 | 23.32 | 22.54 | 32.61 | 32.55 | 17.06 | 20.02 |
| B2 | Aggregated adjustments due to the outcome of the AQR | Basis Points Change | -49 | -202 | -61 | -15 | -19 | -70 | -72 | -580 |
| B3 | AQR adjusted CET1 Ratio B3 = B1 + B2 | % | 14.87 | 13.29 | 22.71 | 22.39 | 32.42 | 31.85 | 16.34 | 14.22 |
| B4 | Aggregate adjustments due to the outcome of the baseline scenario of the joint EBA ECB Stress Test to lowest capital level over the 3-year period | Basis Points Change | 2 | -13 | 90 | 81 | -28 | 105 | -10 | -4 |
| B5 | Adjusted CET1 Ratio after Baseline Scenario B5 = B3 + B4 | % | 14.89 | 13.16 | 23.62 | 23.20 | 32.13 | 32.90 | 16.24 | 14.18 |
| B6 | Aggregate adjustments due to the outcome of the adverse scenario of the joint EBA ECB Stress Test to lowest capital level over the 3-year period | Basis Points Change | -154 | -139 | 62 | 46 | -62 | 110 | -369 | -239 |
| B7 | Adjusted CET1 Ratio after Adverse Scenario B7 = B3 + B6 | % | 13.33 | 11.9 | 23.34 | 22.85 | 31.80 | 32.95 | 12.75 | 11.83 |

Note) Results for the subsidiaries of Swedish banks SEB and Swedbank (SW) and of Norwedian bank DNB in the three Baltic States. LT= Lithuania, LV= Latvia, EE= Estonia. Source) Jocicne, A. (2015), Annex 35, p. 99.

**Table 5) Comprehensive Assessment by ECB in 2015: Evolution of CET1 ratios (%) and resulting capital shortfalls**

| Bank (Country) | CET1 ratio* (starting point) | CET1 ratio after AQR | CET1 ratio baseline scenario** | CET1 ratio adverse scenario** | CET1 shortfall (in Euro Mln) |
|---|---|---|---|---|---|
| AFD (France) | 9.6 | 9.2 | 8.4 | 5.2 | 96 |
| Bank Degroof (Belgium) | 15.8 | 15.2 | 17.8 | 14.2 | N/A |
| Medifin Holding (Malta) | 10.7 | 9.8 | 8.6 | 5.1 | 6 |
| UniCredit (Slovenia) | 17.6 | 17.4 | 18.4 | 14.2 | N/A |
| JP Morgan (Luxembourg) | 30.6 | 30.6 | 32.7 | 31.9 | N/A |
| Muni. Finance (Finland) | 29.9 | 28.5 | 30.2 | 20.8 | N/A |
| Novo Banco (Portugal) | 10.2 | 10.2 | 8.2 | 2.4 | 1,398 |
| Sberbank (Austria) | 10.7 | 9.6 | 8.9 | 4.2 | 138 |
| VTB (Austria) | 9.8 | 8.2 | 8.9 | 4.2 | 103 |

Note 1) *CET1 ratio at year-end (as of 31 December 2014) for all participating banks. **For each scenario the final ratio is defined as the lowest CET1 ratio over the 3-year period (2015-2017) of the stress test.
Note 2) In the case of AFD (France), the identified capital shortfall is covered by a specific mechanism called "compte de reseeve" funded by the French state to cover AFD sovereign risks and accounted in AFD's books (547 mln Eur as of 31 December 2014).
Note 3) Sberbank (Austria) registered an additional increase of 100 mln Eur in CET1 on 5 November 2015.
Source) Note on the 2015 Comprehensive Assessment (ECB, Banking Supervision):
www.bankingsupervision.europa.eu/pdf/ca/2015-11-14_note_comprehensive_assessment.en.pdf?e09834c6564ab84419970599701b5c9c (accessed on 22 August 2018)

**Table 6) Comprehensive Assessment by ECB in 2016: Evolution of CET1 ratios (%) and resulting capital shortfalls**

| Bank (Country) | CET1 ratio (starting point)* | CET1 ratio after AQR | CET1 ratio baseline scenario** | CET1 ratio adverse scenario** | CET1 shortfall (in Euro Mln) |
|---|---|---|---|---|---|
| Abanka d.d. (Slovenia) | 23.0 | 22.6 | 23.8 | 10.0 | 0 |
| Banca Mediolanum S.p.A. (Italy) | 19.7 | 19.7 | 23.0 | 17.7 | 0 |
| Citibank Holdings Ireland Limited (Ireland) | 14.7 | 13.3 | 12.7 | 10.4 | 0 |

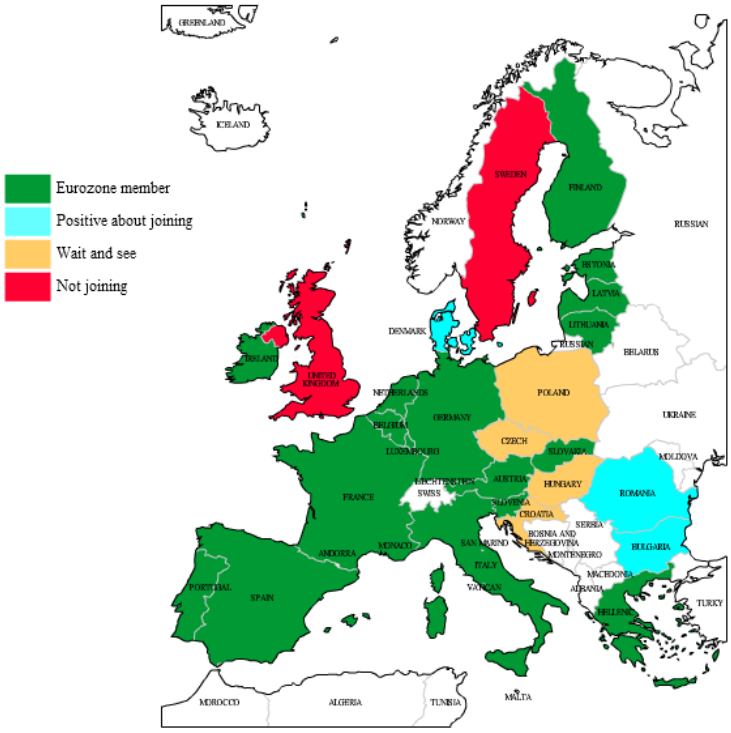
Note 1) Comprehensive Assessment by ECB in 2016 was conducted for 4 banks, however one bank (Akciju sabiedriba "Rietumu Banka" from Latvia) did not consent to the disclosure of its Assessment result on the ECB website, therefore only results of 3 banks have been disclosed.
Note 2) *CET1 ratio as of 31 December 2015, except for Citibank Holdings Ireland Ltd. where 31 March 2016 was used as reference date. **Lowest CET1 ratio over the 3-year horizon (2016-2018) of the stress test.
Source) Press release of 2016 Comprehensive Assessment:
www.bankingsupervision.europa.eu/press/pr/date/2016/tml/sr161104.en.html (accessed on 23 August 2018).

**Table 7) Selected bank performance indicators of Greek and Italian banks which had a capital shortfall in the 2014 Comprehensive Assessment**

| | BIS total capital ratio (%) | | | | | ROE (%) | | | | | NPL Ratio* (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bank (Country) | *2012* | *2014* | *2015* | *2016* | *2017* | *2012* | *2014* | *2015* | *2016* | *2017* | *2012* | *2014* | *2016* | *2017* |
| Eurobank Ergasias(GR) | 11.6 | 16.6 | 17.4 | 17.9 | 18.0 | -40.1 | -32.9 | -30.5 | 2.7 | 2.6 | 22.8 | 33.4 | 34.7 | 33.4 |
| National Bank of Greece (GR) | 9.0 | 13.6 | 14.6 | 16.3 | 17.0 | -36.4 | -17.7 | -57.5 | -41.8 | -5.9 | 19.0 | 22.3 | 33.0 | 32.0 |
| Piraeus Bank (GR) | 9.7 | 12.5 | 17.5 | 17.0 | 15.1 | -29.5 | -44.3 | -31.3 | -2.0 | -18.2 | 23.3 | 38.8 | 37.5 | 34.4 |
| Monte dei Paschi di Siena (IT) | 13.8 | 13.0 | 15.9 | 10.4 | 14.9 | -42.3 | -116.3 | 4.2 | -60.3 | -47.2 | 11.4 | 19.4 | 21.3 | 16.3 |
| Banca Carige(IT) | 10.5 | 11.2 | 14.9 | 13.8 | 12.6 | -19.2 | -38.3 | -7.2 | -21.1 | -29.1 | 6.4 | 12.8 | 15.6 | 8.6 |
| Veneto Banca(IT) | 10.0 | 10.3 | 9.1 | 8.3 | n/a | -3.8 | -51.5 | -66.1 | -156.5 | n/a | 4.5 | 11.4 | 18.2 | n/a |
| Banco Popolare (IT) | 14.0 | 14.6 | 15.9 | 16.2 | n/a | -15.1 | -47.6 | 5.8 | -44.9 | n/a | 7.3 | 17.4 | 18.5 | n/a |
| Banco Popolare di Milano (IT) | 12.1 | 15.4 | 14.3 | 13.4 | n/a | -15.4 | 7.9 | 8.3 | 0.6 | n/a | 4.9 | 9.3 | 8.7 | n/a |
| Banco Popolare di Vicenza (IT) | 11.3 | 11.6 | 8.1 | 8.9 | n/a | 5.6 | -37.5 | -114.3 | -108.6 | n/a | 6.7 | 11.3 | 17.6 | n/a |
| Banca Popolare dell'Emilia Romagna (IT) | 12.1 | 12.2 | 12.5 | 15.2 | 16.7 | -0.2 | 1.3 | 4.7 | 0.2 | 4.4 | 7.8 | 14.3 | 13.6 | 13.1 |

Note 1) GR= Greece, IT= Italy.
Note 2) * NPL ratio refers to the total non-performing loans as a percentage of gross total loans. The Banker's definition of NPL is based on loans with outstanding payments of more than 90 days, plus all non-accrual loans.
Note 3) n/a= data not available for the given year.
Source) *The Banker*, various issues (2012-2018).

**Figure 5) Position of each EU Member State on the Banking Union (as of May 2016)**



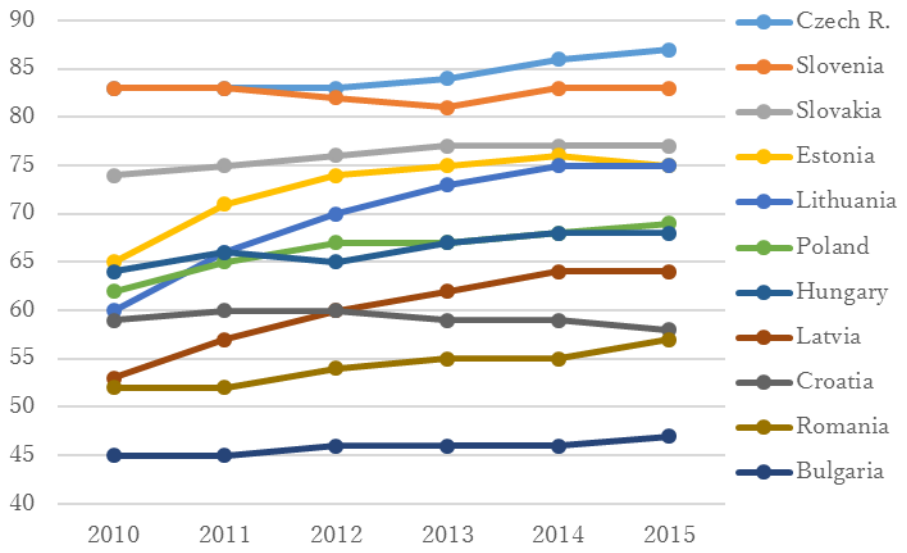

Note) As a result of the national referendum from 23 June 2016, UK will cease to be an EU Member from 29 March 2019.
Source) Press releases by National Central Banks of EU Member States.

**Table 8) Real GDP growth rate (as % change on previous year) in the new EU Member States**

| | 2009 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|
| Estonia | -14.7 | 7.6 | 4.3 | 1.9 | 2.9 | 1.7 | 2.1 | 4.9 |
| Latvia | -14.4 | 6.4 | 4.0 | 2.4 | 1.9 | 3.0 | 2.2 | 4.5 |
| Lithuania | -14.8 | 6.0 | 3.8 | 3.5 | 3.5 | 2.0 | 2.3 | 3.8 |
| Slovakia | -5.4 | 2.8 | 1.7 | 1.5 | 2.8 | 3.9 | 3.3 | 3.4 |
| Slovenia | -7.8 | 0.6 | -2.7 | -1.1 | 3.0 | 2.3 | 3.1 | 5.0 |
| Croatia | -7.3 | -0.3 | -2.3 | -0.5 | -0.1 | 2.4 | 3.5 | 2.9 |
| Czech R. | -4.8 | 1.8 | -0.8 | -0.5 | 2.7 | 5.3 | 2.5 | 4.3 |
| Hungary | -6.6 | 1.7 | -1.6 | 2.1 | 4.2 | 3.4 | 2.2 | 4.0 |
| Poland | 2.8 | 5.0 | 1.6 | 1.4 | 3.3 | 3.8 | 3.0 | 4.6 |
| Bulgaria | -3.6 | 1.9 | 0.0 | 0.9 | 1.3 | 3.6 | 3.9 | 3.6* |
| Romania | -5.9 | 2.0 | 1.2 | 3.5 | 3.4 | 3.9 | 4.8* | 6.9* |

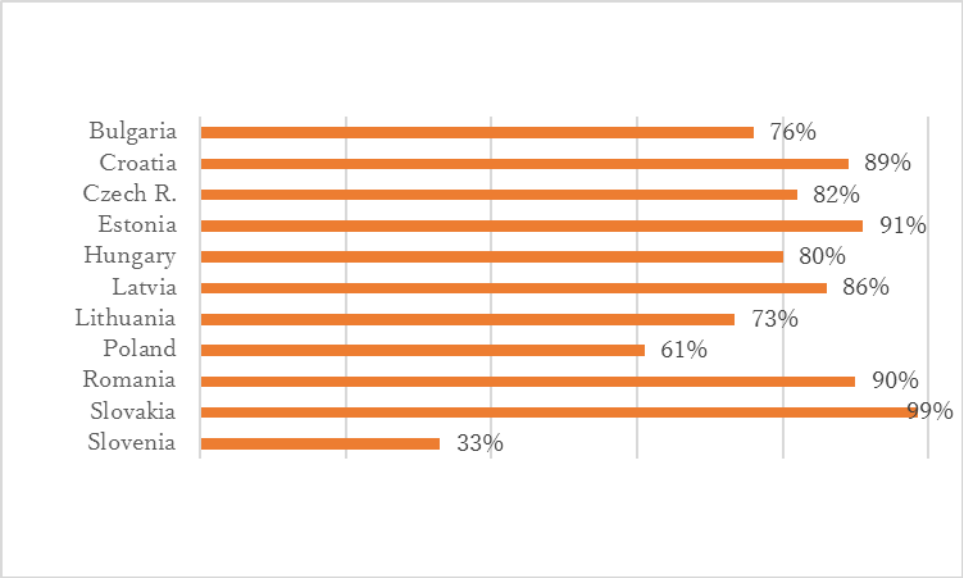
Note 1) Data marked by * are provisional.
Note 2) New Member States in the first 5 columns (Estonia-Slovenia) are already Eurozone Members. The remaining six new Member States are Non-Eurozone Members, and in this Table they are divided into two groups based on their position vis-a-vis the Banking Union.
Source) Eurostat Home Page (last updated on 14 August 2018 and accessed by the Author on 22 August 2018).

**Figure 6) GDP per capita in PPS (EU28=100)**



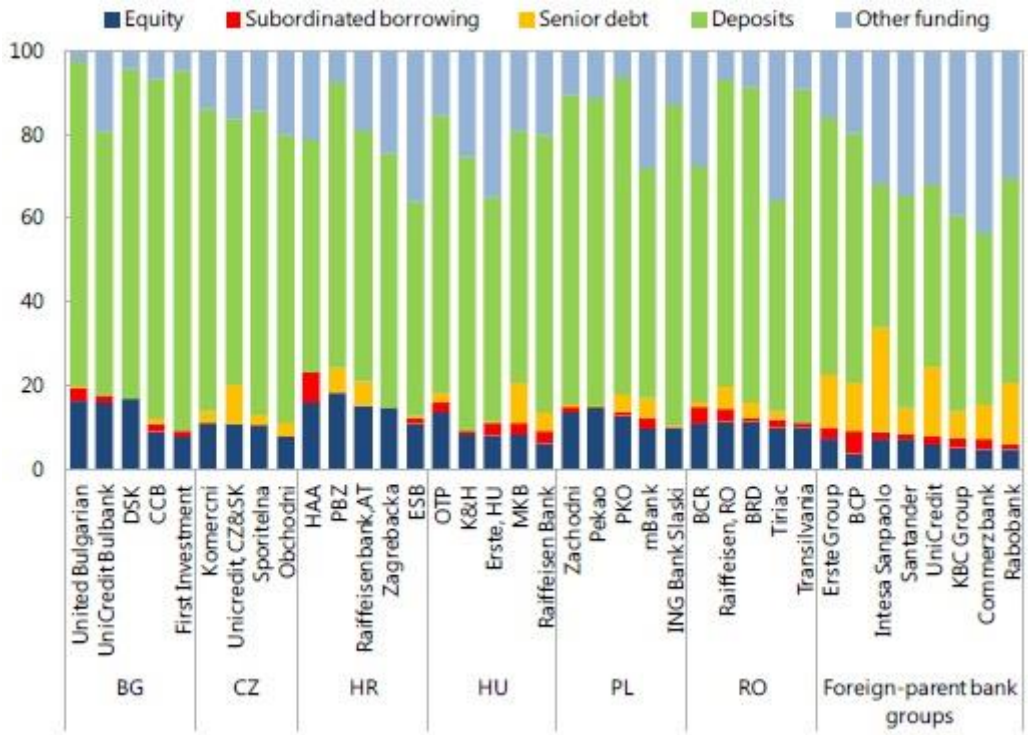

Source) Eurostat Home Page.

**Figure 7) Foreign ownership of banking system in the new EU Member States (as % of total bank assets, 2015)**



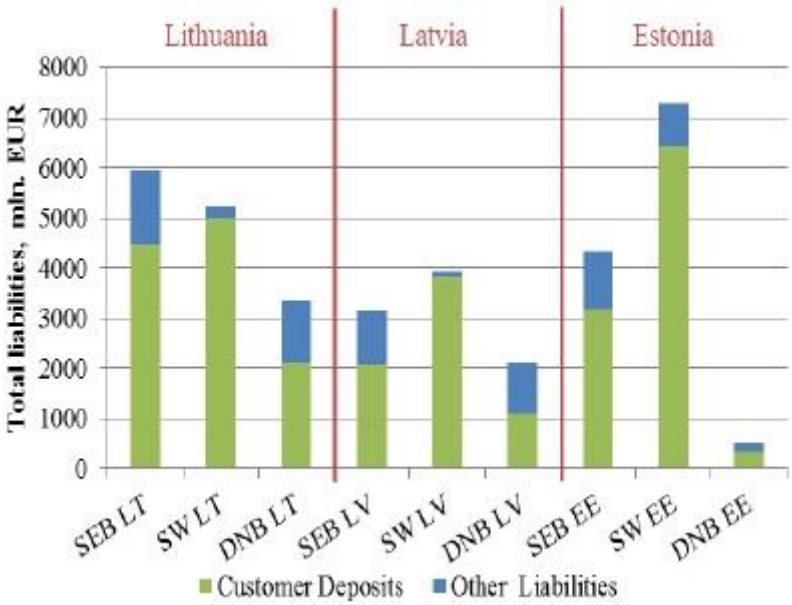

Note 1) In the case of Latvia data shows the foreign share in total capital.
Note 2) Data for Lithuania is for 2014.
Sources) Raiffeisen Research, CEE Banking Sector Report, June 2016; Eesti Pank, Financial Stability Review, 2016; OECD, Latvia: Review of the Financial System, 2016; European Commission, Country Report on Lithuania, 2016.

**Figure 8) Funding structure of top 5 banks in the 6 CEE States and in selected parent bank groups (2013)**



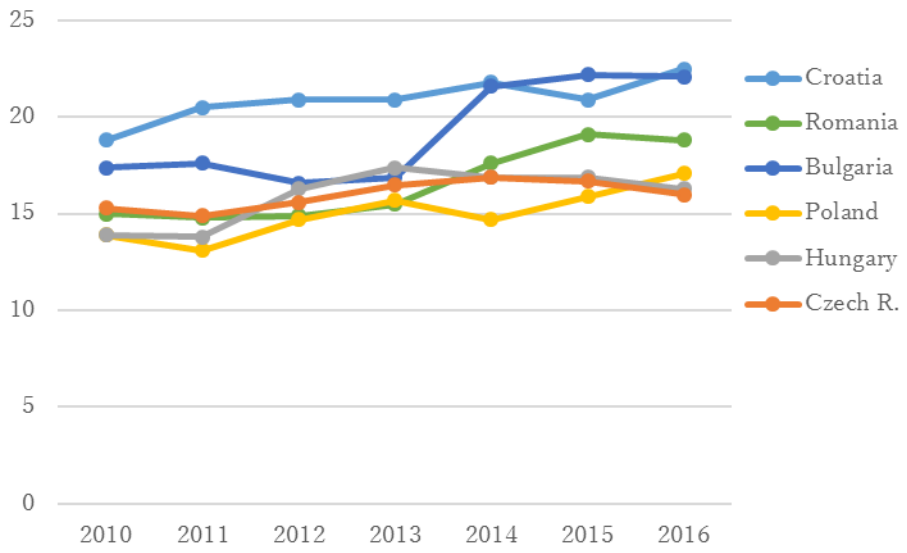

Note) BG=Bulgaria, CZ= Czech Republic, HR= Croatia, HU= Hungary, PL= Poland, RO= Romania
Source) IMF (2015), p.42. Original data came from Bankscope and IMF Staff calculations.

**Figure 9) Sources of funds in subsidiaries of major Scandinavian banks in Baltics (as of 31 December 2014)**



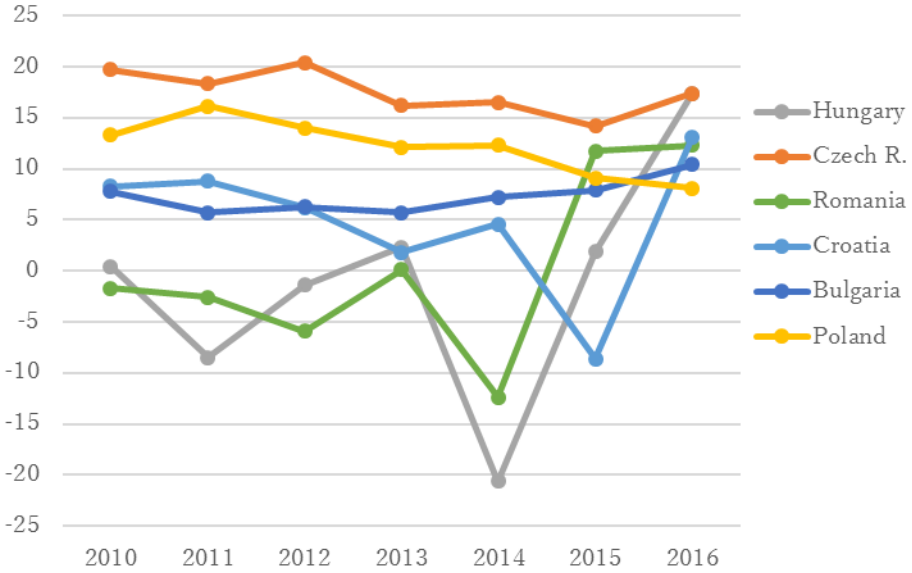

Note) SEB and Swedbank (SW) are Swedish bank groups with subsidiaries in each Baltic State. DNB at the time of this data compilation was a major Norwegian bank present in all 3 Baltic States. However, in 2016 DNB and Swedish bank Nordea announced a plan to merge their activities in the Baltics. LT= Lithuania, LV= Latvia, EE= Estonia.
Source) Jocicne, A. (2015), p. 42. Original data came from Banks Annual Reports.

**Figure 10) Capital Adequacy Ratios (%) in the six Non-Eurozone CEE States**



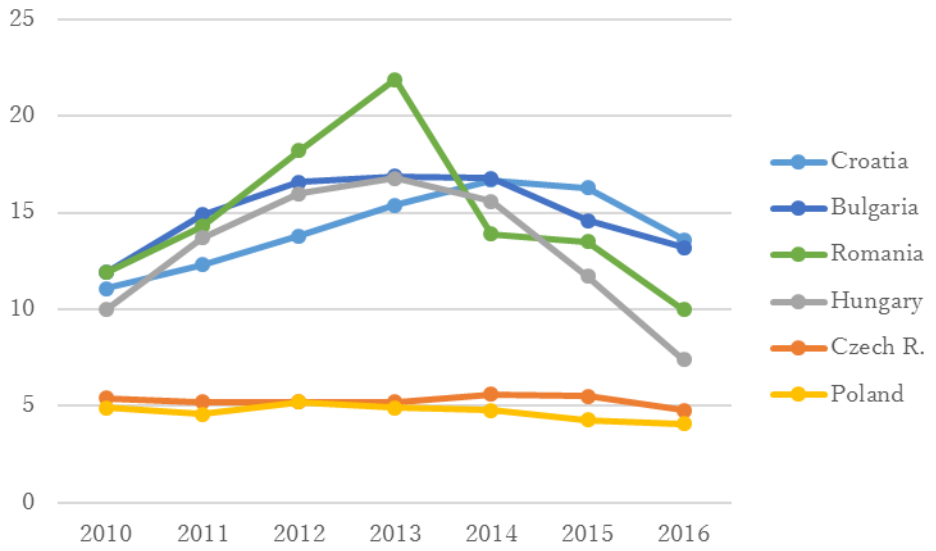

Note) Capital Adequacy Ratio is an indicator of how robust the country's banks are in order to withstand adverse shocks to their balance sheets. The ratio is calculated as Total Regulatory Capital divided by Risk-Weighted Assets. Capital Adequacy Ratio should be at least 8% of Risk-Weighted Assets. Following the implementation of the new CRDIV and CRR this basic requirements remains at 8%, but the minimum share of Tier 1 capital increased to 6% in 2015 (out of which 4.5% has to be comprised of the Common Equity Tier 1 Capital (CET1).
Source) Financial Soundness Indicators database, IMF.

**Figure 11) Bank Return on Equity (%) in the six Non-Eurozone CEE States**




Source) Financial Soundness Indicators database, IMF.

**Figure 12) Bank NPL (Non-performing Loans) in the six Non-Eurozone CEE States**




Note) NPL are shown as % of Total loans in each respective country.
Source) Financial Soundness Indicators database, IMF.

**Table 9) Size of Assets and Tier 1 Capital of major banks in CEE countries**

| Bank | Size of Assets (USD mln) | | | | | | Tier 1 Capital (USD mln) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *2012* | *2013* | *2014* | *2015* | *2016* | *2017* | *2012* | *2013* | *2014* | *2015* | *2016* | *2017* |
| Swedbank EST | 11,822 | 12,320 | 11,309 | 10,533 | 10,772 | 12,733 | 2,032 | 2,378 | 2,274 | 1,480 | 1,519 | 1,853 |
| Swedbank LAT | 6,481 | 6,896 | 6,155 | 5,860 | 5,518 | 6,377 | 1,055 | 1,210 | 1,199 | 1,120 | 611 | 745 |
| Swedbank LIT | 7,445 | 7,789 | 7,651 | 7,248 | 7,710 | 9,417 | 845 | 1,113 | 1,107 | 1,047 | 583 | 714 |
| VUB (Slovakia) | 14,797 | 15,940 | 14,198 | 13,723 | 14,776 | 18,037 | 1,393 | 1,498 | 1,410 | 1,338 | 1,314 | 1,623 |
| NLB (Slovenia) | 18,911 | 17,228 | 14,453 | 12,850 | 12,673 | 14,744 | 1,279 | 1,649 | 1,505 | 1,395 | 1,407 | 1,641 |
| ZABA (CRO) | 21,093 | 19,194 | 16,254 | 18,312 | 17,898 | 20,238 | 2,648 | 2,690 | 2,372 | 2,290 | 2,200 | 2,600 |
| PBZ (CRO) | 12,669 | 12,636 | 11,537 | 11,219 | 11,454 | 16,413 | 1,836 | 1,914 | 1,977 | 1,800 | 1,921 | 2,499 |
| Ceska Spor. (CZ) | 48,302 | 48,694 | 39,528 | 38,662 | 41,596 | 62,434 | 3,524 | 4,205 | 3,297 | 4,005 | 3,855 | 4,740 |
| CSOB (CZ) | 49,183 | 52,017 | 37,910 | 38,530 | 42,337 | 61,794 | 2,360 | 2,777 | 2,632 | 2,701 | 2,690 | 3,246 |
| OTP (HUN) | 45,777 | 48,134 | 42,338 | 37,396 | 38,502 | 50,963 | 5,445 | 5,862 | 3,743 | 3,107 | 3,610 | 4,106 |
| K&H (HUN) | 11,145 | 11,881 | 9,427 | 9,011 | 9,621 | 11,644 | 782 | 812 | 635 | 649 | 669 | 916 |
| Pekao (POL) | 48,693 | 52,630 | 47,797 | 43,278 | 41,678 | 53,295 | 6,198 | 6,564 | 5,721 | 5,182 | 4,774 | 5,532 |
| Zac. WBK (POL) | 19,361 | 35,222 | 38,352 | 35,823 | 35,909 | 43,872 | 1,846 | 2,509 | 3,496 | 3,949 | 3,838 | 5,224 |
| UC Bulbank (BUL) | 8,581 | 9,540 | 9,940 | 10,546 | 10,961 | 12,430 | 1,143 | 1,304 | 1,265 | 1,263 | 1,344 | 1,650 |
| DSK (BUL) | 5,865 | 6,247 | 6,283 | 6,293 | 6,361 | 7,582 | 722 | 763 | 672 | 624 | 600 | 699 |
| BCR (ROM) | 21,825 | 20,500 | 12,505 | 12,093 | 15,701 | 18,234 | 1,865 | 2,128 | 1,311 | 1,273 | 1,470 | 1,588 |
| BRD (ROM) | 14,560 | 14,744 | 16,714 | 15,027 | 12,065 | 14,120 | 1,300 | 1,459 | 1,080 | 1,241 | 1,297 | 1,458 |

Note) Swedbank EST is a subsidiary of the Swedish Swedbank in Estonia; similarly Swedbank LAT is Swedbank's Latvian subsidiary and Swedbank LIT is Swedbank's Lithuanian subsidiary. Slovakia's VUB (Vseob. Uverova Banka) is owned by Intesa

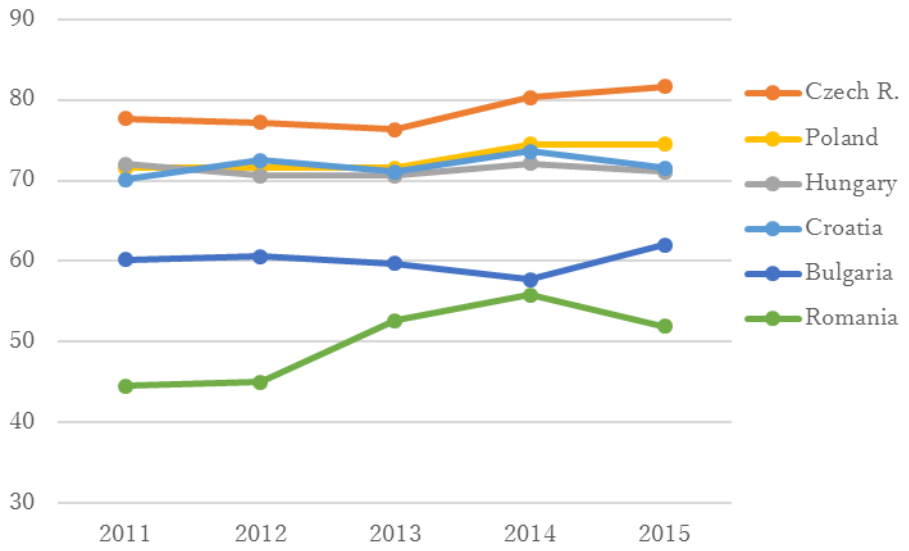
Sanpaolo (Italy). NLB (Nova Ljubljanska Banka) is the largest Slovenian domestic bank. ZABA (Zagrebacka Banka) in Croatia is owned by UniCredit (Italy), and Croatia's PBZ (Privredna Banka Zagreb) is owned by Intesa Sanpaolo (Italy). Ceska Sporitelna in the Czech Republic is owned by Erste Bank (Austria) and the Czech Bank CSOB is owned by the Belgian KBC Group. OTP Bank is a Hungarian domestic bank. K&H Bank (Kereskedelmi es Hitelbank) in Hungary is owned by the Belgian KBC Group. Pekao in Poland is owned by UniCredit (Italy). Bank Zachodni WBK in Poland is owned by Santander Group (Spain). UC (UniCredit) Bulbank is a Bulgarian subsidiary of UniCredit (Italy). DSK Bank in Bulgaria is owned by Hungarian OTP. BCR (Banca Comerciala Romana) in Romania is owned by Austrian Erste Bank and BRD Bank in Romania is owned by the French Societe Generale.
Source) *The Banker*, various issues (2012-2018).

**Table 10) Selected Bank Performance Indicators (BIS Capital Ratio; ROE; NPL) of major banks in CEE countries**

| | BIS total capital ratio (%) | | | | | ROE (%) | | | | | NPL Ratio (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bank | *2012* | *2014* | *2015* | *2016* | *2017* | *2012* | *2014* | *2015* | *2016* | *2017* | *2012* | *2014* | *2016* | *2017* |
| Swedbank EST | 28.2 | 53.2 | 38.4 | 38.3 | 40.1 | 16.1 | 11.5 | 15.6 | 15.1 | 15.2 | 4.1 | 2.2 | 1.7 | 1.4 |
| Swedbank LAT | 21.7 | 34.3 | 40.2 | 23.3 | 25.8 | 15.8 | 13.7 | 13.8 | 20.2 | 19.1 | 11.9 | 4.8 | 2.1 | 1.6 |
| Swedbank LIT | 16.8 | 30.0 | 40.0 | 22.1 | 22.9 | 20.2 | 13.5 | 10.2 | 21.4 | 22.1 | 5.6 | 3.6 | n/a | 1.3 |
| VUB (Slovakia) | 16.1 | 16.1 | 16.3 | 17.2 | 18.2 | 14.0 | 16.3 | 17.4 | 16.9 | 16.6 | 5.5 | 5.3 | 4.8 | n/a |
| NLB (Slovenia) | 10.6 | 17.6 | 16.2 | 17.0 | 15.9 | -26.6 | 5.6 | 8.3 | 9.8 | 17.4 | 28.2 | 25.5 | 13.8 | 9.2 |
| ZABA (CRO) | 22.1 | 25.6 | 20.5 | 21.2 | 22.4 | 10.0 | 9.9 | -1.5 | 13.8 | 7.9 | 13.0 | 18.0 | 13.1 | 10.3 |
| PBZ (CRO) | 22.3 | 24.1 | 21.4 | 23.0 | 22.0 | 12.1 | 9.3 | 3.7 | 14.8 | 10.5 | n/a | 14.3 | 12.0 | 9.0 |
| Ces. Spor. (CZ) | 16.1 | 17.7 | 21.3 | 20.1 | 18.7 | 30.6 | 24.9 | 18.1 | 19.2 | 17.9 | 5.4 | 4.0 | 3.2 | 2.1 |
| CSOB (CZ) | 15.2 | 17.4 | 19.4 | 18.6 | 17.2 | 39.0 | 26.9 | 24.6 | 26.7 | 30.4 | 3.5 | 4.1 | 2.9 | n/a |
| OTP (HUN) | 19.7 | 17.5 | 16.2 | 18.3 | 14.6 | 15.9 | 14.7 | 6.7 | 22.3 | 30.4 | 19.1 | 19.3 | 14.7 | 9.2 |
| K&H (HUN) | 12.9 | 12.6 | 13.9 | 15.3 | 16.3 | 15.6 | -17.0 | 25.5 | 28.1 | 21.1 | 12.0 | 14.7 | 9.8 | 7.1 |
| Pekao (POL) | 18.9 | 17.3 | 17.7 | 17.6 | 16.1 | 19.2 | 16.7 | 14.0 | 14.5 | 16.4 | 7.5 | 6.8 | 6.0 | n/a |
| Zac WBK (POL) | 16.5 | 12.9 | 14.6 | 15.1 | 16.7 | 32.1 | 21.5 | 20.6 | 21.9 | 20.7 | 5.4 | 8.4 | 6.6 | 5.8 |
| UC Bulbank | 18.7 | 19.5 | 22.5 | 25.1 | 27.3 | 14.2 | 15.6 | 16.8 | 16.1 | 17.1 | n/a | 14.5 | 13.0 | 8.7 |
| DSK (BUL) | 19.2 | 18.1 | 17.3 | 17.6 | 17.1 | 17.4 | 25.1 | 32.4 | 31.3 | 28.7 | 18.4 | 15.0 | 11.1 | n/a |
| BCR (ROM) | 18.6 | 18.3 | 19.1 | 19.9 | 20.2 | -23.7 | -76.3 | 19.7 | 18.5 | 14.7 | 26.7 | 20.3 | 11.7 | 8.1 |
| BRD (ROM) | 13.9 | 19.0 | 18.9 | 20.4 | 20.1 | -7.5 | 1.7 | 10.4 | 16.3 | 29.5 | 21.3 | 25.7 | n/a | 4.9 |

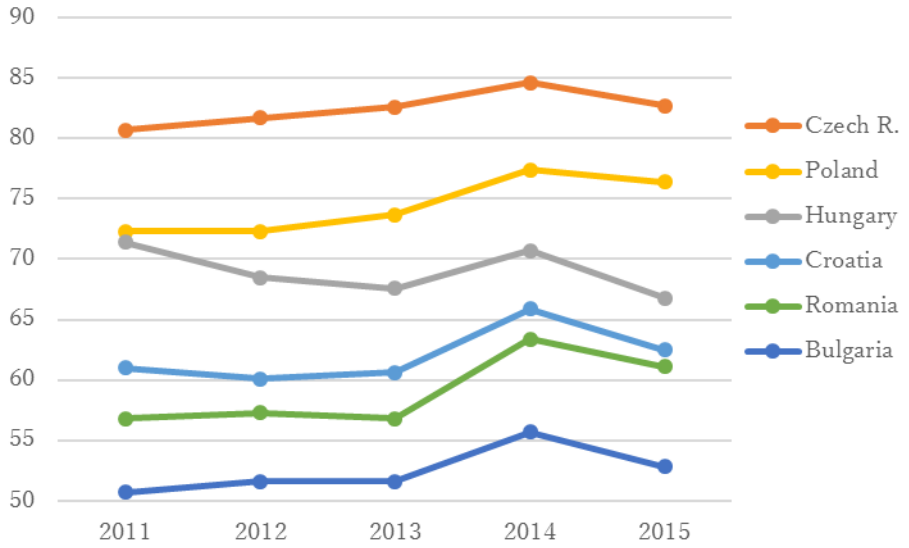
Note) n/a= data not available for the given year.
Source) *The Banker*, various issues (2012-2018); Annual Report of Swedbank Estonia (2011-2015); Annual Report of Swedbank Latvia 2014; Deloitte & Touche, "CEE NPL, Markets in full swing: A record year in 2016" (Jan. 2017); OTP Group, "Financial Results Years 2011-2013".

**Figure 13) Government Effectiveness in the six Non-Eurozone CEE States**




Note) Government effectiveness is constructed from a list of variables and is given as a percentile rank of the given country among all 215 measured countries. Range is from 0 (the lowest) to 100 (the highest rank). The concept measures perceptions of the quality of public services, quality of policy formulation and implementation as well as credibility of government's commitment to its policies.
Source) Worldwide Governance Indicators database, World Bank Group.

**Figure 14) Rule of Law in the six Non-Eurozone CEE States**



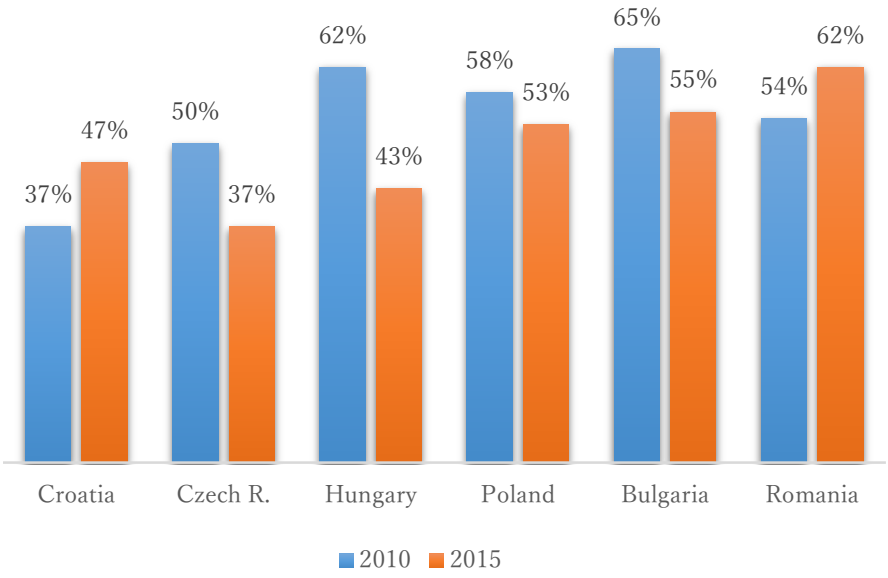

Note) This measure is constructed from a list of variables and is given as a percentile rank of the given country among all 215 measured countries. Range is from 0 (the lowest) to 100 (the highest rank). It measures perceptions of the extent to which agents have confidence in the quality of contract enforcement, property rights, police and courts, etc.
Source) Worldwide Governance Indicators database, World Bank Group.

**Table 11) Economic indicators of convergence for the six Non-Eurozone CEE States and Sweden**

| Country | HICP Inflation* | | | General government deficit (as % of GDP) | | | General government debt (as % of GDP) | | | Long-term interest rate** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *2016* | *2017* | *2018* | *2016* | *2017* | *2018* | *2016* | *2017* | *2018* | *2016* | *2017* | *2018* |
| Croatia | -0.6 | 1.3 | 1.3 | -0.9 | 0.8 | 0.7 | 80.6 | 78.0 | **73.7** | 3.5 | 2.8 | 2.6 |
| Czech R. | 0.6 | 2.4 | **2.2** | 0.7 | 1.6 | 1.4 | 36.8 | 34.6 | 32.7 | 0.4 | 1.0 | 1.3 |
| Hungary | 0.4 | 2.4 | **2.2** | -1.7 | -2.0 | -2.4 | 76.0 | 73.6 | **73.3** | 3.1 | 3.0 | 2.7 |
| Poland | -0.2 | 1.6 | 1.4 | -2.3 | -1.7 | -1.4 | 54.2 | 50.6 | 49.6 | 3.0 | 3.4 | **3.3** |
| Sweden | 1.1 | 1.9 | 1.9 | 1.2 | 1.3 | 0.8 | 42.1 | 40.6 | 38.0 | 0.5 | 0.7 | 0.7 |
| Bulgaria | -1.3 | 1.2 | 1.4 | 0.2 | 0.9 | 0.6 | 29.0 | 25.4 | 23.3 | 2.3 | 1.6 | 1.4 |
| Romania | -1.1 | 1.1 | 1.9 | -3.0 | -2.9 | **-3.4** | 37.4 | 35.0 | 35.3 | 3.3 | 4.0 | **4.1** |
| Reference value*** | 1.9 | | | -3.0 | | | 60.0 | | | 3.2 | | |

*HICP Inflation is average annual percentage change. Data for 2018 refer to the period from April 2017 to March 2018.
** Average annual interest rate. Data for 2018 refer to the period from April 2017 to March 2018.
***Reference values for HICP Inflation and Long-term interest refer to the period from April 2017 to March 2018.
Note) Indicators which exceed the Reference value are marked in bold. Besides these nominal convergence criteria, countries are also monitored in terms of their exchange rate developments and whether their national legislation fulfills required criteria (e.g. laws guaranteeing central bank's independence). Their currencies must participate in the Exchange Rate Mechanism II (ERM II) for at least 2 years. Currently, none of these countries participates in the ERM II. As for the Exchange rate regimes, Bulgaria operates a currency board, while Croatia and Romania have flexible exchange rate regime (managed floating). Remaining four countries have flexible exchange rate regimes.
Source) ECB, *Convergence Report*, May 2018, p.42.

**Figure 15) Support for the EU in the six Non-Eurozone CEE States**




Note 1) Percentage for 2010 shows the percentage of respondents in the given country whose reply to the question "Do you tend to trust the EU?" was Yes. Percentage for 2015 shows percentage of respondents in the given country who said that the EU for them conjured a total positive image. (The exact question asked in 2015 was "Does the EU conjure for you a very positive/fairly positive image?").
Note 2) Bulgaria and Romania joined the EU in 2007 and Croatia in 2013.
Source) Eurobarometer 74 (Public opinion on the EU), Autumn 2010; Eurobarometer 83, Spring 2015.

Table 12) Baltic subsidiaries and the SSM supervision

| Banks | SI / Less SI* | ECB Direct Supervision/ National supervision | Vulnerabilities |
|---|---|---|---|
| SEB LT | SI | ECB direct supervision, JST for all these subsidiaries | The ECB direct supervision can be less effective due to the following reasons:<br>• Parent banks are outside the SSM; absent of deep understanding of the whole cross-border bank group business model, strategy, etc.;<br>• Supervision only of separate group entities does not fully comply with the main idea of the ECB direct supervision;<br>• These subsidiaries are too small for the ECB direct supervision: not enough attention and insufficient resources can be allocated, "one-size-fits-all" approach increases the reporting burden for subsidiaries.<br><br>The ECB direct supervision can accelerate parent banks for the branching process. |
| SEB LV | SI | | |
| SEB EE | SI | | |
| SW LT | SI | ECB direct supervision, JST for all these subsidiaries | |
| SW LV | SI | | |
| SW EE | SI | | |
| DNB LT | SI | ECB direct supervision, JST only for this subsidiary | |
| DNB LV | Less SI | National supervision (Latvia) | |
| DNB EE | Less SI | National supervision (Estonia) | |

Source) Jocicne, A. (2015), Annex 12, p. 80.

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