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New bank equity capital rules in the European Union: A critical evaluation

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Political contributions from the Cologne Institute for Economic Research

New Bank Equity Capital Rules in the European Union

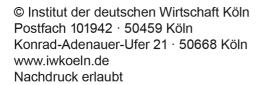
A Critical Evaluation

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Abstract

This paper presents and critically evaluates the bank capital requirement rules proposed by the European Union – the capital requirements directive CRD IV and the capital requirements regulation CRR. First, the rules of the Basel III accord about equity capital standards of banks are briefly described. Second, the EU proposal based on Basel III is presented. The article differentiates between rules fully in line with Basel III, modified rules, and new rules not covered by Basel III. Third, the EU proposals are critically evaluated. The paper concludes that the proposals lead in the right direction, but there is still much room for improvement. In fact, some of the planned rules should be urgently revised. Above all, risk weights for member state government bonds must be introduced, liquidity requirements should not overly favour government bonds, and member states should be able to set capital requirements which are greater than 18% of risk-weighted assets.

JEL classification:

G21: Banks, depository institutions

G18: Government policy and regulation G32: Capital and ownership structure



Table of Contents

Abstract	2
Table of Contents	3
1. Features of Basel III	1
1.1 Overview	1
1.2 Capital requirements	1
1.3 Capital buffers	5
1.4 Leverage ratio	5
1.5 Liquidity requirements	3
2. The EU proposal on capital requirements	3
2.1 Legal framework	3
2.2 EU proposals in line with Basel III rules	7
2.3 EU proposals which deviate from Basel III rules	7
2.4 New EU proposals compared to Basel III	3
3. Evaluation of the suggested measures	9
References	3
Appendix15	5



1. Features of Basel III

1.1 Overview

The main focus of the November 2008 G20 summit in Washington, D.C., was on the global economic and financial crisis 2007/2008. The leaders of the G20 agreed on key regulatory objectives to strengthen the global financial system and to make the banking sector more resilient to shocks (Deutsche Bundesbank, 2011, 5). Based on this agreement, the Basel Committee on Banking Supervision (BCBS) developed a reform package (BCBS 2011a and 2010), briefly called Basel III, which addresses major problems of the global financial crisis. These reforms are designed to strengthen the bank-level (microprudential) regulation as well as to address a macroprudential focus, i.e. system-wide risks and their procyclical amplification over time (BCBS, 2011a, 1-2).

Specifically, Basel III introduces higher minimum bank capital requirements and new elements such as a mandatory capital conservation buffer, a countercyclical buffer and additional capital buffers for global systemically important financial institutions (G-SIFIs) (BCBS 2011a, BCBS 2011b). Moreover, it sets new standards with regard to banks' leverage ratios and liquidity requirements. According to the BCBS, the regulatory reforms should be fully implemented at the beginning of 2019 (BCBS 2011a, 69). The transitional arrangements are necessary to give banks time to build up capital and to keep the impacts on the global economy sufficiently small.

1.2 Capital requirements

Following Basel III and assuming full implementation in 2019,¹ the total capital requirement will be permanently 8.0% of risk-weighted assets (RWA), consisting of 4.5% common equity tier 1 (CET 1) capital (as defined by a set of criteria from the BCBS; BCBS, 2011a, 13), 1.5% additional tier 1 capital, and 2.0% tier 2 capital² (BCBS, 2011a, 12). Common shares and retained earnings are examples for CET 1 capital.³ Under the former rules of Basel II, the total capital requirement was also 8.0% of RWA, but consisted of only 2.0% CET 1, 2.0% additional tier 1 capital, and 4.0% tier 2 capital. Thus, the requirement for CET 1 capital under Basel III is more than doubled.

¹ See BCBS (2011a, 27-28) for details on the transitional arrangements for capital requirements.

² E.g. long-term subordinated loans.

³ See BCBS, 2011a, 13 for a detailed list.



1.3 Capital buffers

In addition, a mandatory capital conservation buffer of 2.5% of RWA will be phased in as of January 2016 starting with 0.625% and will rise every year by 0.625% until 2019, when the maximum amount of 2.5% will be reached (BCBS, 2011a, 55-57) (see diagram 1 for details). This buffer must consist of CET 1 capital and is designed to promote the conservation of capital in the banking sector (BCBS, 2011a, 6). Outside periods of stress, banks should build up the buffer. If a bank's buffer falls below 2.5%, capital distribution constraints will be imposed on this bank. Restrictions can be imposed on the amount of dividends paid out or on the value of shares bought back (BCBS, 2011a, 55-56).

The responsible national authority of each member state of the Basel Committee will be able to introduce a countercyclical buffer of up to 2.5% of RWA, consisting of CET 1 capital to prevent excessive credit growth. If applied, this buffer will be phased in starting with 0.625% in January 2016 and will rise each year by 0.625%. The maximum of 2.5% is again reached in 2019.

Another element in the Basel III framework is a capital buffer of between 1.0 to 3.5% for global systemically important financial institutions (G-SIFIs), also consisting of CET 1 capital. The G-SIFIs are divided into four different categories (so-called buckets) depending on a score. The score of each bank is determined by its cross-jurisdictional activity, its size, its degree of market participation, and the number of jurisdictions where the bank maintains its subsidiaries. The bucket determines the required minimum additional loss absorbency, measured as CET 1 capital as a percentage of RWA (BCBS, 2011b, 12-15). The Financial Stability Board (FSB) published a list of 28 G-SIFIs in November 2012 (FSB, 2012). On the top in category five there is an initially empty bucket of an additional capital buffer of 3.5%. Up to now, Deutsche Bank is the only German bank on the list. It is classified in category four with an additional buffer requirement of 2.5% (FSB, 2012, 3).

1.4 Leverage ratio

In order to limit banks' level of debt, Basel III requires a non-risk based leverage ratio which is defined as the ratio of tier 1 capital to the sum of non-risk weighted assets and off-balance sheet exposures. The leverage ratio must be at least 3%. Since the beginning of the transition period in 2011, the BCBS collects banks' leverage data to assess whether the 3% minimum requirement is appropriate over a full credit cycle and for different types of business models. From 2015 onwards, banks will be required to disclose their leverage ratios. Changes in the definition and calibration of the leverage ratio will be made in the first half of 2017. As of 2018, the leverage ratio will become a binding element (BCBS, 2011a, 61-63).



1.5 Liquidity requirements

In addition to the new leverage restriction, banks will have to satisfy requirements to ensure an appropriate level of liquidity. The liquidity coverage ratio (LCR) shall guarantee banks' short-term solvency and make sure that a bank can meet its liquidity needs for a potential 30 day stress scenario (BCBS, 2013, 1). It requires banks to hold sufficient high-quality liquid assets (HQLA) – e.g. cash or assets easily and immediately convertible into cash – to make banks' liquidity risk profile more resilient. According to the LCR definition of the BCBS, the stock of HQLA must be at least as large as the total net cash outflow over the next 30 calendar days under a stress scenario (BCBS, 2013, 6-7). The minimum requirement of the LCR is equal to 60% of HQLA at the beginning of 2015. It will be raised by 10 percentage points each year to fulfill the 100% level at the beginning of 2019 (BCBS, 2013, 2).

Additionally, the BCBS establishes a net stable funding ratio (NSFR) to improve medium and long-term funding of financial institutions. The NSFR is the ratio of the available amount of stable funding to the required amount of stable funding, which has to be greater than 100%. It indicates whether long-term assets are funded with at least a minimum amount of stable liabilities in relation to their liquidity risk. The time horizon of the ratio is one year. The available funding is categorized with respect to stability and the required amount of stable fundings is also classified. Required stable funding (RSF) factors are assigned to the different classes. Cash for example shows a RSF factor of 0%. The NSFR will become binding as of 2018 (BCBS, 2010, 25-30).

2. The EU proposal on capital requirements

2.1 Legal framework

The European Union generally intends to adopt the Basel III accord. For that reason the European Commission drafted a capital requirements directive CRD IV (European Commission 2011a) and a capital requirements regulation CRR (European Commission 2011b) in 2011. The Basel rules are split between the directive and the regulation as shown in table 1.

Both the directive and the regulation were negotiated under the co-decision rule. Parliament and Council negotiated the two bills in the trilogue framework, i.e. representatives of the Parliament, the Council and the Commission discussed the bills and finally agreed on a compromise in March 2013 (Council of the European Union 2013a and 2013b). The trilogue framework provides that both the European Parliament and the European Council have to formally accept the final compromise. This has not formally happened yet.



Table 1: Distribution of topics between CRD IV and CRR

Directive	Regulation
(Strong links with national law, less	(Detailed and highly prescriptive
prescriptive)	provisions establishing a single rule
	book)
Access to taking up/pursuit of business	Capital
Exercise of freedom of establishment and	Liquidity
free movement of services	
Prudential supervision	Leverage
Capital buffers	Counterparty credit risk
Corporate governance	
Sanctions	

Source: European Council, 2013, 6

2.2 EU proposals in line with Basel III rules

The compromise fully adopts the *new capital requirements*: CET 1 capital must be 4.5% of RWA, additional tier 1 capital amounts to 1.5% of RWA, and tier 2 capital shall be equal to 2%.

The three capital buffers are also adopted: The capital conservation buffer consists of 2.5% of CET 1 capital with respect to RWA. The responsible financial authorities of the member states can establish a countercyclical buffer ranging between 0 and 2.5% of RWA, and the capital buffer of between 1.0 to 3.5% for global systemically important financial institutions is also implemented into EU law.

2.3 EU proposals which deviate from Basel III rules

Basel III defines the *leverage ratio* as tier 1 capital divided by total exposure (without risk weighting). This includes total assets plus off-balance sheet items (Basel III, paragraphs 153-164⁴). The CRR defines the leverage ratio in the same way but states no quantitative minimum level which must be met (CRR Art. 416⁵). It is planned that the European Commission shall – if appropriate – submit a legislative proposal to make a minimum leverage ratio of 3% a binding element as of 2018. Moreover, the European Commission considers setting up several different levels of leverage ratios based on the business model, risk profile, and size of the banks (European Commission, 2013, 22).

⁵ CRR articles can be found in Council of the European Union (2013b).

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⁴ Basel III paragraphs refer to BCBS, 2011a.



The EU defines the *liquidity coverage ratio* (LCR) in the same way as the Basel Committee: The stock of high-quality liquid assets must be at least as large as the total net cash outflow over the next 30 calendar days under a significantly severe stress scenario (BCBS, 2010, para. 15, CRR Art. 401). However, the list of assets that are considered as high-quality liquid assets is far more restricted than the list of the Basel rules. Thus, government bonds of the member states play a relatively more prominent role. In contrast, assets from investment firms or insurance undertakings are banned (CRR Art. 404, Points 1 and 2). Moreover, the new EU regulations do not set a limit for the exposure of banks to single debtors, if the debtor is a sovereign. For other debtors a large exposure limit of 25% applies.

The CRR only loosely defines the *net stable funding ratio*. The clear definition of the Basel III accord is not adopted. It is only stated that the "institutions shall ensure that long term obligations are adequately met with a diversity of stable funding instruments under both normal and stressed conditions" (CRR Art. 401 a). It is planned that the European Commission shall – if appropriate – submit a legislative proposal to set up details of the net stable funding ratio by 31 December 2016 (CRR Art. 481 a).

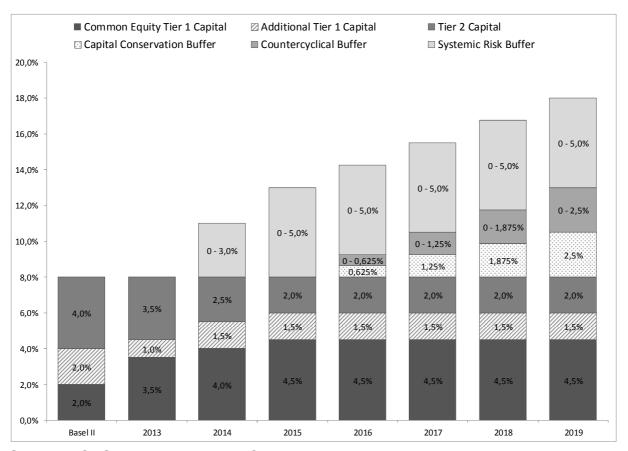
2.4 New EU proposals compared to Basel III

The European Union also plans to establish two new measures not mentioned by Basel III. First, an overall *macroprudential systemic risk buffer* shall be introduced. It is defined as CET 1 capital in relation to RWA. It can be binding for the whole financial sector or for one or more subsets of the sector. It shall be established to prevent systemic or macroprudential risks in a specific member state. The systemic risk buffer for G-Sifis will be a subset of this overall systemic risk buffer. The national financial authority can set up the overall macroprudential systemic risk buffer in the range between 0 and 3% until the end of 2014. Afterwards, the systemic risk buffer can range between 0 and 5% (CRD Art. 124 d).

Ratios of the macroprudential risk buffer greater than 5% need the authorization of the EU Commission. Moreover, the national financial authority has to inform the Commission, the European Banking Authority (EBA), and the European Systemic Risk Board (ESRB) about the measure and give detailed reasons why it wants to set a buffer rate above 5% (CRD Art. 124 d, Points 9 and 10) (see diagram 1 for details).



Diagram 1: Equity Capital Requirements of Basel II and Implementation of Basel III into EU law 2013-2019



Source: BCBS, 2011a, European Commission, 2013, own calculations

Second, a risk buffer for other (than globally) systemically important institutions (O-SII) is planned. It consists of CET 1 capital, can vary between 0 and 2% and will also be a subset of the overall macroprudential systemic risk buffer. National financial authorities can determine systemically important banks within their jurisdiction and can impose this additional buffer if they consider it necessary. The buffer will be introduced from January 2016 onwards (CRD Art. 124).⁶

3. Evaluation of the suggested measures

The proposals of the European Union to implement the Basel III accord into European law lead in the right direction. This relates to the reform items where the EU follows the Basel III rules and particularly to the optional capital requirements

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⁶ CRD articles are laid down in Council of the European Union (2013a).



going beyond the international. However, there is still much room for improvement. In fact, some of the planned rules should be urgently revised.

- 1. The risk weight of EU member states' government bonds denominated in the domestic currency is 0%, independent of their rating (CRR Art. 109 Point 4). In contrast, already the Basel II rules (which remain unaltered by Basel III) postulate risk weights of up to 150%. To deviate from this prescription is clearly not acceptable. As the current sovereign debt crisis has shown, also government bonds bear the risk of default. Moreover, banks and their national sovereigns are connected in a potentially vicious circle where bank crises can lead to sovereign debt crises and vice versa. Thus, there should be no discrimination between government bonds (risk weight of 0%) and bonds issued by financial institutions (risk weights ranging from 20 to 150% (CRD Art. 115)). Hence, risk weights based on their rating should be introduced on government bonds as prescribed in Basel III. The phasing in until 2019 can ensure that the current euro debt crisis will not be aggravated by the new rules.
- 2. The liquidity coverage ratio also prefers government debt compared to the Basel rules. Basel III sets up a list of high-quality liquid assets containing government bonds, corporate bonds, common shares, and residential mortgage backed securities (BCBS, 2013, 12-16). The EU list mainly contains government bonds. Under certain restrictions, assets from financial institutions also count as liquid assets. Assets from investment firms, insurance undertakings and financial holding companies are, however, excluded (CRR, Art. 404). There is no point in being that restrictive and in mainly concentrating on government securities. Hence, the list on what counts as high-quality liquid assets should be more in line with the list set up in the Basel III accord. However, only assets of very high quality should be eligible.
- 3. Moreover, also concerning the new liquidity provisions, there should be a large exposure limit also to government bonds of individual countries, if these bonds serve as liquid assets.
- 4. The EU should also principally introduce a minimum leverage ratio of 3%, as put forward by the Basel Committee. The big advantage of this leverage ratio is that it can be computed easily since the assets are not risk-weighted and can hence be compared easily to detect banks with excessive leverages. The plans of the European Commission to set different minimum leverage ratios for different business models and risk profiles should make sure that the leverage ratio deviates from 3% only in exceptional circumstances.



- 5. The EU proposal's definition on what counts as CET 1 capital is wider than the Basel definition. Consequently, the BCBS judged that the EU definition of capital is materially non-compliant with the Basel III accord (BCBS, 2012, 12). For two reasons the definition of capital should be in line with Basel III. First, financial institutions should only use equity capital which can really buffer losses. So the definition of capital should be very restrictive to meet this criterion. Second, the fact that the capital of European banks does not meet the Basel III criteria sends out a problematic signal to the worldwide financial community: European banks tend to bear a higher risk of bankruptcy than their counterparts in the other G20 countries. Consequently, the financial markets could charge a higher risk premium to European banks, which would increase their capital costs and weaken their ability to compete internationally. Thus, market pressure might eventually enforce a stricter definition of CET 1 capital.
- 6. In the same document as mentioned in the previous paragraph, the Basel Committee criticizes the EU's internal ratings-based (IRB) approach to measure credit risk as materially non-compliant with Basel III (BCBS, 2012, 12). For example, the BCBS criticizes that the EU allows a bank using the IRB approach to permanently apply the standardized approach even if the use of the standardized approach leads to lower risk weights. Under Basel III this is not possible. The standardized approach can particularly lead to lower risk weights, if applied to exposures of central governments, regional governments, and local authorities. As a consequence, the amount of risk-weighted assets can be smaller, so that the banks would have to hold less capital to meet the minimum capital requirements. Again, this non-compliance sends out the signal that European banks are more exposed to financial distress and consequently the capital costs are higher. Taking into account these arguments the EU rules concerning the IRB approach should meet the blueprint of Basel III.
- 7. If all capital requirements and the various capital buffers are added, the maximum amount of equity capital is 18% (see diagram 1). The European legislator wants the member states not to go further (BCBS, 2013, 11). So if member states want to exceed this threshold (e.g. setting up a systemic risk buffer of more than 5%), they need the authorization of the European Commission. Furthermore, they have to provide detailed reasons why their banks need more capital. Some member states e.g. Spain and Great Britain already announced to set up stricter capital requirements for their banks (European Commission, 2013, 11). It is not sensible to restrict them. If a banking sector of a member state is far more risky and volatile, a national



authority should be able to easily increase the capital requirements of domestic banks. Consequently, the rules of exceeding the systemic risk buffer beyond 5% should be modified. It should be sufficient to inform the European Commission about this step and to provide reasons.

- 8. The net stable funding ratio is not clearly defined in the EU proposal. The regulation should come up with a clear definition, as given in the Basel III framework. Moreover, so far the rules about stable funding are only provisional. The EU should make a clear commitment to introduce the net stable funding ratio in line with Basel III and implement it in the revised regulation.
- 9. Basel III applies the capital conservation buffer to all financial institutions, irrespective of their size. The EU directive plans that member states may exempt small and medium-sized investment firms to maintain the capital conservation buffer (CRD Art. 123 Point 1a). There is no reason to make an exception concerning smaller firms. Therefore, the EU should stick to the same rule and impose the capital conservation buffer to all financial institutions.
- 10. Finally, it is stated that gender balance in management boards of banks and investment companies (board of directors and supervisory boards) is important. The directive calls for a threshold for the representation of the underrepresented gender (CRD Recital 45a). However, a specific threshold is not specified. The demand for this threshold should be dropped. The management board members of financial institutions should be chosen only based on their knowledge and competence, irrespective of any age, gender, cultural, geographic, educational, and professional background.



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Appendix

Synthesis table about the Basel III and EU rules about equity capital regulations

Basel III Framework	Proposals of the Capital Requirements Directive CRD IV and the Capital Requirements Regulation CRR (As of 21/03/2013) Minimum requirement for	Assessment Ratio for CET 1 will be
Minimum requirement for common equity tier 1 (CET 1) capital: 4.5% of risk-weighted assets	common equity tier 1: 4.5% of RWA (previously 2.5%) (Regulated in CRR	exactly adopted.
(RWA). Common shares are the most important component of CET 1. There are 14 criteria for classification as common shares (BCBS, 2011, paragraph 53).	Art. 24). The term common share is not mentioned, the regulation only counts 13 criteria to meet (CRR Art. 26).	Broader definition of CET 1. According to the BCBS, this definition is "materially non-compliant" with Basel III (BCBS, 2012, 12).
The Basel II rules (which remain unaltered by Basel III) postulate risk weights of EU member states' government bonds of up to 150%.	The risk weight of EU member states' government bonds denominated in the domestic currency is 0%, independent of their rating (CRR Art. 109 Point 4).	To deviate from this prescription is clearly not acceptable. As the current sovereign debt crisis has shown, also government bonds bear the risk of default.
Additional tier 1: 1.5% of RWA. Minimum requirement for tier 1 capital: 6.0% of RWA.	Additional tier 1: 1.5% of RWA (CRR Art. 48).	Exactly adopted. Exactly adopted.
Capital conservation buffer: 2.5% of RWA. Capital conservation buffer consists of CET 1.	Capital conservation buffer: 2.5% of RWA for all banks in the EU (CRD Art. 123). Capital conservation buffer consists of CET 1 (CRD	Capital conservation buffer and time schedule of implementation exactly adopted.



	Art. 123).	
Minimum requirement for common equity tier 1 plus capital conservation buffer: 7.0% of RWA.		Exactly adopted.
Tier 2 capital: 2.0% of RWA.	Tier 2 capital: 2.0% of RWA (CRR Art. 59).	Exactly adopted.
Minimum requirement for total capital (plus capital conservation buffer): 8.0% (10.5%) of RWA.	Minimum requirement for total equity capital, i.e. tier 1 and 2, (plus capital conservation buffer): 8.0% (10.5%) of RWA (CRR for tier 1 and 2 capital and CRD for capital conservation buffer).	
Countercyclical buffer: up to 2.5% of RWA. This buffer consists of CET 1. Determined by national financial authority.	Countercyclical buffer: up to 2.5% of RWA. This buffer consists of CET 1 (CRD Art. 123). Determined by national financial authority. This authority is in turn determined by the member state.	Capital conservation buffer and time schedule of implementation exactly adopted.
Capital buffer for global systemically important banks (G-SIFIs): Additional loss absorbency requirements of between 1.0 to 3.5% of RWA (BCBS, 2011, 15). Buffer consists of CET 1. FSB decides in accordance with national authorities on the list of global systemically important banks (BCBS, 2011, 65). Currently, there are 28 G-SIFIs.	Capital buffer for global systemically important banks (CRD Art. 124a): Additional loss absorbency requirements of between 1.0 to 3.5% of RWA according to the list of the FSB. Introduction as of 1 January 2016.	Exactly adopted.



Deutsche Bank is the only German bank with an additional buffer requirement of 2.5%. Phased in as of 1 January 2016, becoming fully effective on 1 January 2019 (BCBS, 2011, 15).		
No equivalent Basel III rule.	Capital buffer for other systemically important banks (O-SII) (CRD Art. 124 a): Additional loss absorbency requirements of up to 2% of RWA. Capital buffer consists of CET 1. Other systemically important banks may be important for the EU or for their respective member state. Determined by national authority. Introduction as of 1 January 2016.	EU-Regulation is new.
No equivalent Basel III rule.	Systemic risk Buffer of CET 1 for the financial sector or one or more subsets of the sector in the member state (CRD Art. 124 d). Determined by national authority. Until 2015: up to 3% of RWA; As of 1 January 2015: up to 5% of RWA; For a rate above 5%, member states have to	EU-Regulation is new.



state detailed reasons why to implement it and need the authorization of the EU Commission (CRD Art. 124 d paragraph 9-10). Capital buffer consists of CET 1. **Leverage Ratio** = Tier 1 **Leverage Ratio** = Tier 1 **EU-Regulation weaker** than Basel III. capital / non-RWA and offcapital / non-RWA and offbalance sheet exposures ≥ balance sheet exposures 3% (BCBS, 2011, Definition of Leverage Ratio adopted. paragraph 153). Quantification (3%) is Data gathering as of 1 dropped (CRR Art. January 2014; 416). Public disclosure as of 2015: Time schedule for Report by 2016 for review implementation is adopted. of the ratio; Review in 2016 whether Mandatory introduction as Leverage Ratio is of 2018 (BCBS, 2011, determined according to the bank's business model paragraphs 165-167). and risk profile. **Liquidity Coverage Ratio Liquidity Coverage Ratio** Basel III adopted with (LCR): It requires banks to (LCR) adopted (CRR Art. adjustments. hold sufficient high-quality 401). liquid assets (cash and Introduction is faster: 60% Faster phase-in of EUespecially domestic in 2015, 70% in 2016, 80% Regulation than under in 2017 and 100% in 2018 government bonds), so Basel III; 100% will be (CRR Art. 444). that a bank can meet its reached already in 2018. liquidity needs for a 30 day Bonds of member states stress scenario; mandatory are preferred (CRR Art. Tighter definition of highas of the beginning of 404). quality liquid assets. 2015. Stronger focus on Stock of high-quality liquid government bonds of assets ≥ Total net cash member states. outflows over the next 30 calendar days (BCBS, 2010, 3).



Banks have to report the ratio as of 1 January 2012. Review of the ratio in the middle of 2013 (BCBS, 2010, 41). Stepwise introduction (BCBS, 2013, 2):

2015: 60%,2016:

70%,2017: 80%,2018: 90%,2019: 100%.

Net Stable Funding Ratio (NSFR) has been developed to provide a sustainable maturity structure of assets and liabilities (mandatory as of 1 January 2018).

Available amount of stable funding ≥ Required amount of stable funding. Equity capital and liabilities (= available amount) are weighted with Available Stable Funding (ASF) Factors between 0 and 100 % according to their long-term availability. Assets are weighted with Required Stable Funding (RSF) Factors also between 0 and 100 % according to their maturity (BCBS, 2010). Report as of 1 January 2012. Review of the ratio in the middle of 2016. Mandatory introduction as of 2018 (BCBS, 2010, 41).

Net Stable Funding Ratio (NSFR) is not adopted.

It is only required that banks' assets are covered by an appropriate ratio of equity capital and liabilities. A ratio is not specified.

The rule is only provisional, starting on 1 January 2016: Institutions shall ensure that long term obligations are adequately met with a diversity of stable funding instruments (CRR Art. 401 a). By 31 December 2016, the Commission shall submit a legislative proposal to the European Parliament and the Council (CRR Art. 481 a).

EU-Regulation weaker than Basel III.

However, the EU regulation would be effective earlier if it were decided to introduce the NSFR mandatorily.