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US Basel III Final Rule on banks' capital requirements: a *different*-size-fits-all approach

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1. Introduction

The first Basel Capital Accord ("Basel I") was published in July 1988, on the basis of the work of the Basel Committee on Banking Supervision (BCBS). It was enacted in the USA by the end of 1992. The second Accord ("Basel II") was finalised by the Basel Committee on Banking Supervision (BCBS) in June 2004 to overcome major shortcomings of the previous standard, notably with reference to the risk-weighting system. In the USA, a strong critical debate emerged, based on two main alleged drawbacks: the excessive complexity and the compliance costs for small banks (community banks), under the principle of "one-size-fits-all". Largely as a result of this debate, the Basel II Accord was applied in the USA only in 2006, but exclusively to the 19 largest banks.

At the end of 2007, the US federal banking agencies (Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency) published the Final Rule to implement Basel II, to become effective on April 2008. As a consequence of the financial crisis that had erupted, the compliance date was delayed or waived. In response to the global crisis, in 2009 the BCBS issued a revised version of Basel II, referred to as Basel 2.5, mainly designed to cope with credit risk in banks' trading books. US banking agencies issued proposed rules to adopt Basel 2.5 in the USA in January 2011. The Final Rule (the so-called Market Capital Risk Rule)

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was however issued only in June 2012, together with a proposed rule to implement the new "Basel III" international framework, which had been produced by the BCBS in 2010 to become effective on January 1, 2013. The enactment date was however delayed by one year. The Basel III framework is broader in scope, with respect to the first two accords: it encompasses capital, liquidity and governance standards.[1] In this note, reference will be made to capital requirements: (i) which have been strengthened in terms of both quality and quantity to improve the resilience of banks while placing additional private capital at stake in case of stress, and (ii) whose procyclicality has been reduced.

2. The US Basel III Final Rule (July 2013)

The US Basel III Final Rule on capital standards adapts the international Basel III framework to the requirements contained in the US Dodd-Frank Act (2010),[2] and notably to Section 171, commonly referred to as the Collins Amendment, which: (i) provides for the development of capital requirements for all insured institutions and systemically important non-bank financial companies (small banks with less than $500 million in assets are exempt from the amendment), and (ii) stipulates that capital requirements applicable to depository institutions that are not advanced-approaches banks act as a floor for the requirements applicable to bank holding companies and all advanced-approaches banking organisations.

Also as a result of a newly rekindled debate, in 2012-2013, on the need to avoid excessive complexity for banks of modest size, the US implementation of Basel III sees the emergence of a regulatory system which is de facto effectively modulated according to bank size. *All* banks

[1] An illuminating analysis of the Basel regulatory process is offered by Goodhart (2011).
[2] The Rule also implements the capital-related Dodd-Frank requirement (Section 939A) that references to external credit ratings be removed from the US banking agencies' rules and replaced with alternative standards of credit worthiness. For a critical discussion of credit rating agencies and their regulation, see Presti (2012).

must respect the new basic minimum capital rules, but *additional requirements* are imposed on banking organisations on the basis of size and complexity.

From a legal point of view, the minimum requirements imposed by Section 171(b) of the Collins Amendment to all insured depository institutions cannot be quantitatively lower than the capital requirements that were in effect when Dodd-Frank was enacted in July 2010. But, as indicated, at that time only the features of Basel I and, very partially, Basel II had been implemented in the USA. Capital ratio requirements in place in July 2010 represent, therefore, a *floor* for regulatory ratios. Regulatory agents may set higher, but not lower requirements (Getter, 2012). This provided significant leeway and scope for a modular regulatory standard for the nation's 7019 banks and savings associations, as is indicated below in tables 1, 2 and 3.

Table 1 – *US Basel III Final Rule: asset size and complexity relevant for capital requirements*

	Size class	**Total assets (*A*), $ billion**
1.	Small banks	$A < 0.5$
2.	Community banks	$0.5 \leq A < 15$
3.	Medium banks *(standard and foundation-approaches)*	$15 \leq A < 250$
4.	Large banks *(advanced-approaches)*	$250 \leq A < 700$
5.	G-SIBs *(globally systemically important)*	$A \geq 700$ (or assets under custody > 7,000)

US Basel III does *not* apply to small banks with total consolidated assets smaller than $500 million, to non-covered savings and loan holding companies and to holding companies of industrial loan companies (unless systemically important). These organisations must respect a Basel I-type regulatory approach.

US Basel III applies to community banks (US banking organisations with total consolidated assets < $15 billion as of year-end 2009), as well as to large banks (tables 2 and 3).

However, a less stringent regulatory framework is adopted for community banks, also with a view to avoiding excessive complexity.[3] In particular: AOCI (accumulated other comprehensive income) treatment under existing capital rules can be retained; permanent grandfathering of certain non-qualifying capital instruments is permitted (in particular, Trust Preferred Securities or TruPS, continue to count as Tier 1 capital); more favourable risk weights on given assets (weights for residential mortgages continue to be applicable as in the Basel I regime) are introduced; no-Pillar 3 disclosure obligations are foreseen.

US Basel III introduces a graduated regulatory system for medium and large banks; a distinction is made between non-advanced approaches ($15 billion ≤ total assets < $250 billion) and advanced-approaches banks (total assets ≥ $250 billion). Collins Amendment capital floors are introduced for advanced-approaches banks: they must calculate RW (risk-weighted) capital ratios both under the advanced and the standardised approaches, but they must use the *lower* of each capital ratio for compliance purposes; advanced-approaches banks are subject to multiple capital ratio calculations also in respect of leverage ratios. The RW countercyclical capital buffer, if enacted, would apply *only* to advanced-approaches organisations (table 2).

[3] Federal Deposit Insurance Corportation (FDIC) Chairman Martin J. Gruenberg (2013) specifically indicated in a press release concerning the Basel III Final Rule that changes to the rule had been made because of community bank objections and suggestions: he publicly endorsed the widely held view that applying the highly complex, overly complicated and very costly Basel III capital requirements to all banks, following a one-size-fits-all approach, would have created significant distortions against the community banking model. See also Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation and Office of the Comptroller of the Currency (2013). It appears that also liquidity and governance standards will be modulated according to banks' size and complexity. See Tarullo (2013a; 2013b).

Table 2 – *US Basel III Final Rule: RW capital requirements (not applicable to small banks)**

Basic requirements			**Additional requirements**		
Common Equity Tier 1 (CET 1)	Additional T1	T2	Counter-cyclical capital buffer[a]	Capital conservation buffer	Global systemic important banks (G-SIB's) surcharge[b]
4.5	1.5	2	0-2.5	>2.5	1-2.5
4.5	6	8	10.5	13	15.5

***** The figures in rows 1 and 2 are in percentages. The figures in row 2 represent the hypothetical maximum cumulative percentage.
[a] This buffer, if deployed, would apply only to advanced-approaches banking organisations.
[b] This surcharge is not part of US Basel III Final Rule. It will be addressed in a separate proposal.

With reference to non-risk-weighted requirements, the US banking agencies underlined the need for a complementary relationship between RW and leverage capital requirements (i.e. of 'economic' and 'accounting' leverage). In their view, the international Basel III framework tightens considerably more risk-based requirements than traditional leverage ratios, tilting the necessary balance between the two.[4] With a view to ensuring the appropriate calibration (the non-bindingness of risk-based ratios, as shown in figure 1 below), the US banking agencies decided to strengthen the leverage ratios for large banks, as detailed in table 3.

[4] It is beyond the scope of this paper to attempt an assessment of the pros and cons of leverage vs. risk-weighted capital regulation frameworks. Even without accepting the critical analyses of the RWA approach offered for instance by Haldane and Madouros (2012) and by Hoenig (2012), the need to balance risk sensitivity and complex, costly, arcane methodologies with simplicity, comparability and transparency is now increasingly recognised even within central banks. The existence and relevance of the trade-off have been explored by the BCBS itself (2013b).

Table 3 – *US Basel III Final Rule: non-risk-based capital requirements*

1. US leverage ratio (LR) *(applies to all banks)*	LR = Tier 1 capital / Total assets ≥ 4% [a]
2. Basel III supplementary leverage ratio (SLR) *(applies only to advanced-approaches banks)*	SLR = Tier 1 capital / Total leverage exposure ≥ 3% [b]
3. (Proposed) American add-on *(applies only to US G-SIBs[c] and their insured depositary institution (IDI) subsidiaries)*	G-SIB → 3% + >2% buffer ↓ IDI subsidiaries → 3% + 3% add-on

[a] The denominator of the US leverage ratio does not take into account off-balance sheet exposures.
[b] On and off-balance sheet exposures. Total leverage exposure equals the sum of the following exposures:
- Balance sheet carrying value of all of the banking organization's on-balance sheet assets minus amounts deducted from Tier 1 capital;
- Potential future credit exposure (PFE) amount for each derivative contract to which the banking organization is a counterparty (or each single-product netting set for such transactions) determined in accordance with the US Basel III standardized approach (i.e. the current exposure method), but without regard to the credit risk mitigation benefits of collateral;
- 10% of the notional amount of unconditionally cancellable commitments made by the banking organization; and
- Notional amount of all other off-balance sheet exposures of the banking organization excluding securities lending, securities borrowing, reverse repurchase transactions, derivatives and unconditionally cancellable commitments.

[c] Currently: Bank of America, Bank of New York, Citigroup, Goldman Sachs, JPMorgan Chase, Morgan Stanley, State Street and Wells Fargo.

Beyond the traditional ratio of 4%, defined as Tier 1 capital divided by total (on-balance) assets, a supplementary leverage ratio (SLR) was introduced for advanced-approaches banks, defined as Tier 1 capital divided by total leverage exposure (on and off-balance sheet exposures). The SLR must stand above 3% (to be implemented in 2018). In spite of the redefinition of the denominator, a leverage backstop of 3% appears "outrageously low" (Admati and Hellwig, 2013). A level twice as high had been advocated in Masera (2012).

It is therefore appropriate that the US banking agencies have proposed significantly higher leverage ratios for the largest systemically

important banks (G-SIB's). On 9 July 2013, beyond the approbation of US Basel III Final Rule, a joint inter-agency notice of proposed rulemaking (NPR) was also approved, to strengthen the supplementary leverage requirements for the largest most systemically important banking organisations. The higher requirements may also be motivated by the relatively lenient US Generally Accepted Accounting Principles (GAAP) accounting rules for derivatives in the calculation of the leverage ratio. The ratio is strongly affected by the method of accounting for derivatives in the denominator. US and EU standards are quite different. US GAAP allows the fair value of derivatives contracts to be recorded on a net basis if a master netting agreement gives the right to net settlement. IFRS allows the positions to be netted out if and only if there is an unconditional right to set-off and the clear intent to settle on a net basis. The international Basel Accords lean towards the US principles, but are currently under revision (BCBS, 2013a).

Pending a possible re-examination of US accounting rules too, the US banking agencies, upon enactment of the US Basel III Final Rule, proposed a leverage add-on, which would currently apply to eight banking groups.[5] At holding level, and on a consolidated basis, they must maintain a SLR>5%; each IDI subsidiary must maintain a 6% ratio to be considered well-capitalised under the PCA (Prompt Corrective Action) framework. This US add-on factor performs a role similar to the capital conservation buffer. Covered bank holding companies failing to maintain a leverage buffer > 2% (on top of the minimum SRL of 3%) would be subject to increasingly stringent restrictions on their ability to make

[5] See FDIC (2013). A key official view in favour of more rigorous leverage requirements for derivatives was expressed by the Vice Chairman of the FDIC Thomas Hoenig (2013) in a paper where he offered interesting estimates of the leverage ratios of systemically important US banking organisations by using both US GAAP and International Financial Reporting Standards (IFRS). The reduction in leverage capital with US GAAP was summarised as follows, "At the end of the first quarter of 2013, the U.S. banking organizations with the five largest derivative portfolios held about $283 trillion in notional value of derivatives. The absolute gross fair value of these instruments is $10.6 trillion. However, for purposes of calculating the existing leverage ratio, capital is held against only approximately $282 billion of this amount because of U.S. GAAP netting rules."

capital distributions and to pay dividends or discretionary bonus payments.

3. A comparison with the EU transposition of Basel III

A comparison with EU capital requirements (Capital Requirements Regulation, CRR, and Capital Requirements Directive, CRD IV, July 2013), summarised in table 4, shows that the risk-based Basel III Final Rule shares the same basic requirements, but is: (i) considerably simpler and less onerous in terms of RW requirements, (ii) more demanding with respect to non-risk weighted ratios, and (iii) modulated according to bank size. In particular, important Pillar 2 features are not foreseen. In addition, the countercyclical buffer, if deployed, would apply only to advanced-approaches banks. No parallel exists to the systemic risk buffer[6] and the EU "flexibility package" (the so-called EU specificity). It is also noteworthy that CRR/CRD IV do not include any provision requiring advanced-approaches banking institutions to calculate capital buffers using the *higher* of risk-weighted assets calculated under the advanced approaches and the standardised approach, as in the USA.[7]

The EU philosophy sets primary emphasis on risk-weighted requirements. Leverage plays a backstop, ancillary function: "the leverage ratio will be an additional checking tool for supervisors" (European Commission, 2013a). In line with this approach, the initial implementation of the leverage ratio is left to national supervisory

[6] Also from this perspective, the US standard does not rely on a simplistic 'more RWA capital' approach. The issue of complex interactions between commercial and investment banking activities is dealt with in terms of the Volcker Rule. The detailed rules issued in December 2013 by US agencies (Federal Reserve, 2013) bar banks from speculating with own funds (prop trading). With the Volcker Rule, the Dodd-Frank regulatory overhaul is largely complete.

[7] Other important differences between US and EU implementations of the Basel III international framework not explored in this note are: references to external ratings and sovereign risk, large exposures, adjustments for derivative counterparty risk (credit valuation adjustment, CVA).

Table 4 – *EU CRR/CRD IV capital requirements* *

Basic requirements			**Pillar 1 flexible requirements**[a]				**Pillar 2 flexibility**		**EU flexibility package (CRR)**[e]		
									Member states[d]	EU Commission	
CET 1	Additional T1	T2	Counter-cyclical capital buffer	Capital conservation buffer	Systemic risk buffer[b,e]	Global systemic important institutions buffer[c] (G-SII)	Supervisory possibility of adding extra capital	Banks' own capital buffer	National macro-flexibility	Real estate and LTV criteria	Temporary (1 year) stricter requirements
4.5	1.5	2	0-2.5	2.5	3-5	1-3.5	0-2	1-2	Quantitative surcharges are not defined ex ante		
4.5	6	8	10.5	13	18	21.5	23.5	25.5			

* The figures in rows 1 and 2 are in percentages. The figures in row 2 represent the hypothetical maximum cumulative percentage.
[a] Member states retain flexibility with regard to capital requirements only.
[b] This buffer is optional, to cover structural or systemic risk (buffer rate 0-3% in 2014, 3-5% from 2015 onwards). Member states or the designated authority can set the rate subject to notification to the European Commission, the European Banking Authority (EBA) and the European Systemic Risk Board (ESRB). The buffer is intended to cope with ring-fencing of commercial banking activities (Vickers' UK model). A member state can set the rate above 5%, but only by authorisation of the Commission.
[c] This surcharge (applicable from 2016) is set to cope with the degree of 'G-SII-ness'. For (non-global) EU SIIs, the surcharge is 0-2.5%.
[d] Member states retain flexibility with regard to increasing requirements on capital, risk weights, large exposures and liquidity.
[e] The systemic risk buffer and the EU flexibility package are not present in the international Basel III and in US Basel III (they are an EU specificity).

(European Commission, 2013a). In line with this approach, the initial implementation of the leverage ratio is left to national supervisory authorities as a Pillar 2 measure, taking as a point of reference the 3% level suggested by international Basel III. As data and evidence are gathered, a report will be prepared, including the proposal to make leverage a binding measure as of 2018.

Specific attention is drawn here to the one-size-fits-all issue. In view of the (i) much higher relevance in Europe of banking finance, compared to markets, and (ii) the very high relevance of small and medium enterprises (SMEs) and of small banks credit flows to this vital sector of the EU economy,[8] it might have been expected that banks of modest size should have been given preferential treatment in Europe.[9] Somewhat paradoxically, this is not the case.[10]

The rationale for this approach, which was consistently adopted in the transposition of Basel I, II and 2.5 respectively into the Council Directives 89/299/EEC and 89/647/EEC, Capital Requirements

[8] Loans to private non-financial agents intermediated by banks are 38% of total credit flows to this sector in the USA, compared to 80% in Europe (Choulet, 2013). Small and Medium Enterprises (SMEs) account for 67% of total employment in the non-financial business sector in the EU, as against 47% in the US (figures refer to 2012). Today, 85% of net new jobs in the EU private sector are created by SMEs; nine out of ten SMEs are micro-enterprises. The greater influence of SMEs in the EU compared to the US is well documented in EC/Ecorys (2012). See also European Commission (2013b).

[9] In the EU, the approach adopted consisted mainly of introducing a weight discount factor to SME lending, applicable to all banks in their operations with these counterparties. A balancing factor was introduced in respect of risk exposures for SME loans in the retail portfolio. Art. 476a stipulates that the capital requirements for credit risk on exposures to SME enterprises (defined in accordance with the Recommendation 2003/361/EC) shall be reduced from 75 to 57% (discount factor equal to 0.7619).

[10] There is ample evidence that, in general, banks can represent a rational solution to the joint problems of moral hazard and strategic default, because of their efficient role as borrower monitors. Banks pool and screen loan contracts thereby reducing costs and efforts of direct investors. In particular, well-run small local banks have a comparative advantage over large and complex financial groups in information gathering and delegated monitoring with respect to SMEs. A significant link exists between the size of banking firms and their supply of credit to households and SMEs, also as a result of easier access to 'soft' information. For a survey of the vast literature and interesting models that develop the original Diamond (1984) approach, see Lin and Sun (2011).

Directives I and II, and Capital Requirements Directive III, has been very clearly stated by the European Commission (2013a), as follows:

> "[…] while the Basel capital adequacy agreements apply to 'internationally active banks', in the EU it has always applied to all banks (more than 8,300) as well as investment firms. This wide scope is necessary in the EU where banks authorised in one Member State can provide their services across the EU's single market and as such are more than likely to engage in cross-border business. Also, applying the internationally agreed rules only to a subset of European banks would create competitive distortions and potential for regulatory arbitrage."

The European Commission's arguments in favour of what amounts to a one-size-fits-all regulatory approach carry weight, and have not been fundamentally challenged in the past 25 years.[11] Attention however may be drawn to possible flaws and drawbacks.

Even if we accept that large systemically relevant, highly diversified, banks may require a complicated system of regulation,[12] it does not follow that application of the highly complex Basel III framework to all EU banks minimises competitive distortions and regulatory gaming. Until a properly functioning, credible early recovery and resolution scheme for banks is in place,[13] it can be argued that competitive distortions are primarily related (i) to the operation of public guarantees in favour of very large banks, too-important-to-fail, with no taxpayer-cost principle (social losses and private gains), and (ii) to systemically important banks' proactive use of sophisticated derivative structure to arbitrage capital rules.[14] There is a fundamental disconnect between on the one hand,

[11] A reason for this is related to the fact that in Europe even smaller banks can operate cross-border since the European Union is not a federal nation.

[12] This need not be taken for granted (see, for instance, Haldane and Madouros, 2012). More generally, the theory of complex systems does not lead to the conclusion that the best control mechanism should be a complex one.

[13] In the USA, this issue was regulated in the Dodd-Frank Act (2010). In Europe, see Draft Directive (11148/1/13 REV 1) and Council of European Union 11228/13, 27 June 2013. See also Tonveronachi (2013) and Montanaro (2013).

[14] Compared to small banks, very large, internationally active banks have a built-in advantage in gaming capital requirements through complex CDS-based derivative structures. On these points, see for instance Masera and Mazzoni (2011; 2013), Blundell-Wignall and Atkinson (2011), and Shich and Lindh (2012).

wholesale, investment and corporate banking activities undertaken by very large financial groups on a global scale and based on originate to distribute (OtD) models; and, on the other hand, community banking with households and SMEs on a local basis.[15]

In any event, small and local banks can hardly represent a challenge to level competition to finance SMEs in the EU single market. Evidence on this is offered precisely by the US experience with community banks: consensus developed in favour of the counter argument, according to which total costs of compliance with a highly complex system of capital rules, as a percentage of total revenues, create competitive distortions against small banks.[16]

4. Leverage vs. RW capital rules on the two sides of the Atlantic: who rules the roost?

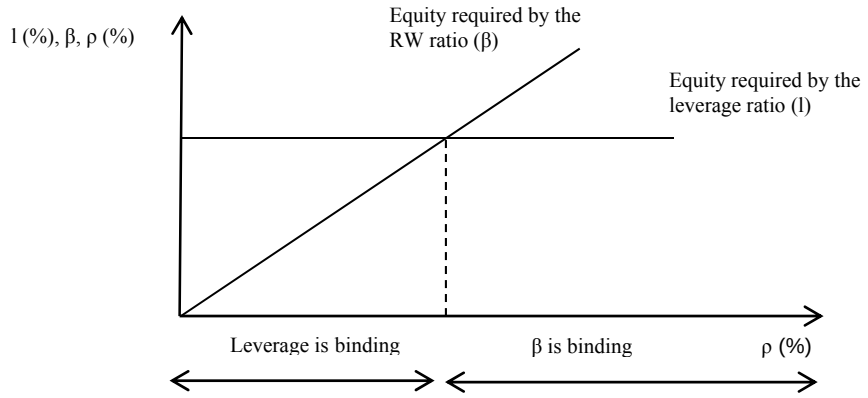
A second important facet of the comparative analysis of the US Final Rule from the perspective of the EU transposition of Basel III refers to the question of the relative pre-eminence of non-risk-adjusted versus risk-weighted capital requirements. The issue was examined in detail in Masera and Mazzoni (2011); a highly simplified graphical approach is adopted in figure 1, to highlight the problem of bindingness. In the figure, $E_l = l \cdot A$ is the equity required according to the leverage ratio (l); $E_b = \beta \cdot RWA = \beta \cdot \rho \cdot A$ is the equity required by the Basel risk-

[15] It should be underlined that these arguments are, instead, fully accepted at EU level with reference to the conduct of microsurveillance by the ECB (Single Supervisory Mechanism, SSM). It is clearly indicated in the EU Council Regulation n. 1024/2013 that, within the framework of an effective well-functioning single internal market for financial services, "(17) When carrying out the tasks conferred on it, and without prejudice to the objective to ensure the safety and soundness of credit institutions, the ECB should have full regard to the diversity of credit institutions and their size and business models, as well as the systemic benefits of diversity in the banking industry of the Union. (18) The exercise of the ECB's tasks should contribute in particular to ensure that credit institutions fully internalise all costs caused by their activities so as to avoid moral hazard and the excessive risk taking arising from it". On these points see Lamandini (2013).

[16] For a key official view on these points, see Hoenig (2012).

weighted standard (β), taking into account ρ, that is the ratio between RWA and total assets (A).

Figure 1 – *The coexistence of leverage and RWA capital requirements*



As shown, the leverage ratio is binding when $E_l > E_b$, i.e. when $l > \beta\rho$. The bindingness of l or β depends on the respective levels of the two regulatory ratios and on the ratio of RWA/A (ρ), which is partly endogenous (bank gaming). The three ratios should, in fact, be simultaneously taken into account to assess the degree of stringency of capital requirements, given the initial values of the parameters.

The figure summarises the bindingness conditions of l (leverage ratio) and β (risk-weighted Basel ratio), taking account of ρ (ratio of RWAs to total assets). For simplicity's sake, the issue of on and off-balance sheet exposures is disregarded. With hypothetical examples of *maximum* β and l in the EU and in the USA, obtained from tables 2, 3 and 4, and taking into account the average ρ, it appears that in Europe the leverage ratio would never be binding, contrary to the USA, where the opposite could apply to very large banks.

5. Conclusion

The US Basel III Final Rule transposed into US legislation the new international capital framework by the BCBS. A parallel legislative process has taken place in the EU through CRR/CRD IV. The key features and requirements of the BCBS standard are respected on both sides of the Atlantic. However, important differences also emerge.

De facto, in the US the capital regulatory system has been adapted to bank size, with specific attention to community banks. In Europe, instead, the one-size-fits-all principle has been reiterated, as had been the case with Council Directives 89/299/EEC and 89/647/EEC and with CRD I, II and III, allegedly to ensure fair competition for all banks in the single market. This different approach appears counterintuitive and can be challenged.

A second relevant difference lies in the approach to risk-weighted and non-weighted capital requirements. To start with, the EU risk-weighted scheme is much more complex and potentially onerous than the US system; additionally, the RW requirements appear dominant with respect to leverage. In the USA, a more balanced approach is adopted and, under certain plausible quantitative assumptions, leverage might even become binding for some very large banks, as a result of the American add-on. Finally, with specific regard to leverage, it would be highly desirable that an appropriate *common* method of accounting for derivatives be adopted in the USA, the EU and the BIS international Basel III standards for banking organisations.

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