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# **Leverage ratios and Basel III: proposed Basel III leverage and supplementary leverage ratios**

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## **Leverage Ratios and Basel III: Proposed Basel III Leverage and Supplementary Leverage Ratios**

### **ABSTRACT**

The Basel III Leverage Ratio, as originally agreed upon in December 2010, has recently undergone revisions and updates – both in relation to those proposed by the Basel Committee on Banking Supervision – as well as proposals introduced in the United States. Whilst recent proposals have been introduced by the Basel Committee to improve, particularly, the denominator component of the Leverage Ratio, new requirements have been introduced in the U.S to upgrade and increase these ratios, and it is those updates which relate to the Basel III Supplementary Leverage Ratio that have primarily generated a lot of interests. This is attributed not only to concerns that many subsidiaries of US Bank Holding Companies (BHCs) will find it cumbersome to meet such requirements, but also to potential or possible increases in regulatory capital arbitrage: a phenomenon which plagued the era of the original 1988 Basel Capital Accord and which also partially provided impetus for the introduction of Basel II.

This paper is aimed at providing an analysis of the recent updates which have taken place in respect of the Basel III Leverage Ratio and the Basel III Supplementary Leverage Ratio – both in respect of recent amendments introduced by the Basel Committee and proposals introduced in the United States. It will also consider the consequences – as well as the impact - which the U.S Leverage ratios could have on Basel III. There are ongoing debates in relation to revision by the Basel Committee, as well as the most recent U.S proposals to update Basel III Leverage ratios and whilst these revisions have been welcomed to a large extent, in view of the need to address Tier One capital requirements and exposure criteria, there is every likelihood, indication, as well as tendency that many global systemically important banks (GSIBs), and particularly their subsidiaries, will resort to capital arbitrage. What is likely to be the impact of the recent proposals in the U.S.?

The recent U.S proposals are certainly very encouraging and should also serve as impetus for other jurisdictions to adopt a pro-active approach – particularly where existing ratios or standards appear to be inadequate. This paper also adopts the approach of evaluating the causes and consequences of the most recent updates by the Basel Committee, as well as those revisions which have taken place in the U.S, by attempting to balance the merits of the respective legislative updates and proposals. The value of adopting leverage ratios as a supplementary regulatory tool will also be illustrated by way of reference to the impact of the recent legislative changes on risk taking activities, as well as the need to also supplement capital adequacy requirements with the Basel Leverage ratios and the Basel liquidity standards.

**Key Words:** global systemically important banks (G-SIBs), risk weighted assets, leverage ratios, harmonisation, accounting rules, capital arbitrage, disclosure, stress testing techniques, U.S Basel III Final Rule

## **Leverage Ratios and Basel III: Proposed Basel III Leverage and Supplementary Leverage Ratios**

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### **A. Introduction**

The first consultative paper on a new capital adequacy framework, which was issued by the Basel Committee on Banking Supervision, introduced the „three pillar“ model which encompasses the minimum capital requirements, supervisory review and market discipline - „as a lever to strengthen disclosure and encourage safe and sound banking practices.“<sup>2</sup> As well as the criticism related to the fact that it rewarded risk lending, the fact that „capital requirements were just reasonably related to bank's risk taking and that the credit exposure requirement was the same regardless of the credit rating of the borrower,“<sup>3</sup> a general criticism of Basel I relates to the fact that it promoted capital arbitrage. Such capital arbitrage being attributed to its wide risk categories which provided banks with the liberty to „arbitrage between their economic assessment of risk and the regulatory capital requirements.“<sup>4</sup>

„Regulatory capital arbitrage“, a practice which involves banks „using securitisation to alter the profile of their book“ usually produces the effect of making bank's capital ratios appear inflated.<sup>5</sup> Four identified types of capital arbitrage are:<sup>6</sup> cherry picking, securitisation with partial recourse, remote origination and indirect credit.

The Second Consultative Paper, issued by the Basel Committee in January 2001, introduced the two Internal Ratings Based (IRB) methodologies – the Foundational IRB and the Advanced IRB methodologies. The Internal Ratings Based approach to capital requirements for credit risk, not only relies significantly on the internal assessment carried out by a bank, in relation to counterparties and exposures, but is also geared towards the achievement of two primary goals, namely:<sup>7</sup> „additional risk sensitivity“ and „incentive compatibility“.

Basel 2 is premised on a three level approach which permits banks to select from three models, namely: the basic standardized model, the IRB foundation approach and the advanced ratings approach. According to the Consultative Document on Standard Approach to Credit Risk,<sup>8</sup> capital

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1 Email: marianneajo@hotmail.com

2 Basel Committee on Banking Supervision, 'Consultative Paper on a New Capital Adequacy Framework' 3rd June 1999 <<http://www.bis.org/press/p990603.htm>>

3 See M Saidenberg and T Schuermann, 'The New Basel Capital Accord and Questions for Research' (2003) Wharton Financial Institutions Center Working Paper 2003 at page 4

4 Basel Committee on Banking Supervision, 'Capital Requirements and Bank Behaviour: The Impact of the Basel Accord' Basel Committee on Banking Supervision Working Papers April 1999 at page 21

5 See *ibid*; Bank's capital ratio may appear inflated „relative to the riskiness of the remaining exposure“ see *ibid*

6 *Ibid* at pages 22-24

7 In establishing an Internal Ratings Based approach, the Committee's intention was directed at „fine tuning capital requirements with a greater degree of accuracy to the level of a bank's exposure to credit risks.“ Basel Committee on Banking Supervision, 'The Internal Ratings Based Approach' Supporting Document to the New Basel Capital Accord 2001 at pages 1 and 3 <http://www.bis.org/publ/bcbcsca05.pdf>

8 Basel Committee on Banking Supervision, Consultative Document, Standard Approach to Credit Risk, Supporting Document to the New Basel Accord January 2001 at page 1 <http://www.bis.org/publ/bcbcsca04.pdf>

requirements under the standardized approach are considered to be more synchronised and in harmony with the principal elements of banking risk – owing to the introduction of more differentiated risk weights and a broader recognition of techniques which are applied in mitigating risk whilst such techniques attempt to avoid undue complexity. As a result, capital ratios generated through the standardized approach, should adapt more to present and actual risks encountered by banks, than was the case previously.

Under Pillar One minimum capital requirements, operational risk is to be corroborated by capital. Measurement approaches for operational risk can be found in the Capital Requirements Directive (CRD) and there are three broad approaches to the capital assessment of operational risk which are as follows:

- Basic Indicator Approaches
- Standardized Approaches
- Internal Measurement Approach

The developments and evolution across the Basel Capital Accords have illustrated their focus to address prevailing financial risks at the time, their focus on the regulation of complex financial instruments such as hedge funds, the pro cyclical nature of risks and the need to mitigate occurrences related to regulatory capital arbitrage. The era of Basel III has also witnessed the introduction of liquidity standards – these being the first of their kind, However the need to address off balance sheet instruments, complex derivative products, exposures of various kinds - and particularly those exposures relating to derivatives, off balance sheet and leverage, as well as those risks attributed to non bank institutions, continually constitute a vital focal point.

This paper is structured as follows: The next section then considers the reasons attributable to the introduction of Basel III Leverage and Basel III Supplementary Leverage Ratios as well as its vital role as a supplementary measure to the risk based capital adequacy framework. Whilst highlighting the merits and advantages of the Basel Leverage Ratio, subsection BII also illustrates why revisions and updates to the Basel Leverage Ratio were deemed necessary if the Basel Committee's broad goals and objectives of fostering financial stability are to be achieved. In this respect it also incorporates the background and factors which have provided the impetus for the recent proposals in the U.S – as well as those proposals and guidelines initiated by the Basel Committee on Banking Supervision in June 2013. From the perspective of the proposals undertaken in the U.S, factors such as the „Too Big To Fail Effect“ are considered. Further, whilst the recent proposals in the U.S are to an extent, targeted at increasing the leverage ratios, those revisions currently being undertaken by the Basel Committee – as stated in the June 2013 guidelines, are, to an extent, targeted at revising the components of the Basel Leverage Ratios.

Section C then considers the Basel Leverage Ratio's role as a supplementary measure to the risk based capital adequacy framework, as well as the impact of the recent legislative proposals and changes on risk taking activities. Components of the Basel III Level Ratio and recent proposals aimed at updating such components are considered – with the aim of highlighting the importance of such updates in the minimisation of regulatory capital arbitrage activities. Section D then considers not only the events leading up to (as well as culminating) in the 2013 Rule and the Final Rule, but also arguments put forward to bolster U.S proposals to update the Basel Leverage Ratio.

In concluding the paper, reference is made to the all important need to achieve a balance between the need for consistency, comparability and improved harmonisation whilst ensuring that simplicity and a „one size fits all“ approach does not promote a situation whereby credible and accurate

results are neglected at the expense of achieving a standardized approach. This is partly illustrated by way of reference to bank stress testing techniques.

## **B Basel III Leverage and Basel III Supplementary Leverage Ratios**

The Basel III Leverage Ratio was established by the Basel Committee as a non risk based measure which is intended to serve as a supplement to the Basel risk based capital framework. The merits of the Leverage Ratio as a supplement to the risk based capital adequacy framework include:<sup>9</sup> i) Its constrain of the build up of leverage in the banking sector – which the risk based regime is not equipped to address; ii) Through a non-risk based „back stop“ which ultimately serves to protect against model risk, and the reduction of capital requirements, its re enforcement of risk based requirements; iii) Its role as a standardized measure that investors and counterparties can use in making comparisons between banks over a period of time; iv) The establishment by certain academics that the leverage ratio is a „statistically significant“ predictor of potential bank failures.

Hence it can be illustrated that the Basel III Leverage ratio not only serves as a supplementary measure to the risk based capital adequacy framework, but also a means whereby the facilitation of greater comparability between banks can be achieved (since standardization promotes consistency, enhanced transparency and disclosure). Its vital role as a supplementary tool to the risk based capital adequacy framework in countering risk taking incentives will later be highlighted under section B II – which immediately follows this section.

- *An underlying feature of the financial crisis was the build-up of excessive on- and off-balance sheet leverage in the banking system. In many cases, banks built up excessive leverage while maintaining strong risk-based capital ratios. At the height of the crisis, the market forced the banking sector to reduce its leverage in a manner that amplified downward pressure on asset prices. This deleveraging process exacerbated the feedback loop between losses, falling bank capital, and shrinking credit availability.<sup>10</sup>*

The Basel III reforms introduced a „simple, transparent, non-risk based leverage ratio which is intended to serve – not only as a „credible supplementary measure to the risk-based capital requirements“ but also:<sup>11</sup>

- restrict the build-up of leverage in the banking sector to avoid destabilising deleveraging processes that can damage the broader financial system and the economy; and
- reinforce the risk-based requirements with a simple, non-risk-based “backstop” measure.

Furthermore, the Basel Committee is of the view that:<sup>12</sup>

- a simple leverage ratio framework is critical and complementary to the risk-based capital framework; and
- a credible leverage ratio is one that ensures broad and adequate capture of both the on- and off-balance sheet leverage of banks.

Even though this subsection is exclusively dedicated to highlighting the benefits of the Basel Leverage Ratio, reasons for recent proposals aimed at updating the originally introduced Basel

<sup>9</sup> Basel Committee on Banking Supervision, Discussion Paper "The Regulatory Framework: Balancing Risk Sensitivity, Simplicity and Comparability" July 2013 Bank for International Settlements Publications at page 16

<sup>10</sup> Basel Committee on Banking Supervision, Consultative Document Revised Basel III Leverage Ratio Framework and Disclosure Requirements June 2013 at page 4 of 22 <http://www.bis.org/publ/bcbs251.pdf>

<sup>11</sup> ibid

<sup>12</sup> ibid

Leverage Ratio will be considered in the ensuing section.

## **B.II Basel Committee's Efforts to Update Original 2010 Basel III Leverage Ratios and U.S Proposals to Increase Basel Leverage Ratios**

In November 2011, the Basel Committee on Banking Supervision (BCBS) issued a document<sup>13</sup>, „Global Systemically Important Banks: Assessment Methodology and the Additional Loss Absorbency Requirement, which „sets out a framework for a new capital surcharge for global systemically important banks ( the BCBS framework)“.

The BCBS framework:

- Is intended to strengthen the capital position of the global systemically important banking organizations (G-SIBs) beyond the requirements of other banking organizations by expanding the capital conservation buffer for these organizations.
- Incorporates five broad characteristics of a banking organization that the agencies consider to be good proxies for, and correlated with, systemic importance – size, complexity, interconnectedness, lack of substitutes, and cross-border activity.

The document „Global Systemically Important Banks: Updated Assessment Methodology and the Higher Loss Absorbency Requirement“ updates and replaces the November 2011 publication Global Systemically Important Banks: Assessment Methodology and the Additional Loss Absorbency Requirement. According to the Committee, changes in relation to the updated publication reflect the lessons learnt from applying the assessment methodology using data submitted by banks in respect of their positions as at the financial year-ends 2009 to 2011. Further, it is highlighted that the changes also include the addition of the disclosures that banks are required to make to ensure that the assessment methodology operates on the basis of publicly available information. Further changes related to the publication are as follows:

- Methodology for determining the sample of banks.
- Indicator definitions.
- The Wholesale Funding Ratio, which was one of the three indicators in the interconnectedness category in the November 2011 publication and which has been replaced with a Securities Outstanding indicator.

Several revisions, particularly relating to the denominator component of the Basel III Leverage Ratio, have recently been undertaken by the Basel Committee, as illustrated in its June 2013 guidelines. From this viewpoint, measures aimed at minimising regulatory capital arbitrage become all the more evident since banks are able to manipulate their way into increasing the leverage ratio by getting many assets allowed in the numerator and as little in the denominator: „cherry picking“ arbitrage having constituted a problem since the original Basel Capital Accord. Hence it could be argued that it is not the mere increase of leverage ratios that truly matters (even though this is also important), but measures aimed at ensuring that permissible contents/instruments are incorporated into the numerators and denominators of such leverage ratios.

<sup>13</sup> Basel Committee for Banking Supervision, 'Global Systemically Important Banks: Assessment Methodology and the Additional Loss Absorbency Requirement' July 2013 <http://www.bis.org/publ/bcbs207.pdf>

Certain factors influential in the recent proposals and efforts aimed at achieving higher leverage capital requirements, according to U.S federal agencies,<sup>14</sup> include the belief that higher standards for the supplementary leverage ratio would reduce the likelihood of resolutions, and would allow regulators more time to tailor resolution efforts in the event those are needed. In their opinion, by further constraining their use of leverage, higher leverage standards could offset possible funding cost advantages that these institutions may enjoy as a result of the “too-big-to-fail” problem, which will be considered in the following section.

### The Too Big to Fail Problem and Its Impact on Recent Legislative Proposals

According to a notice jointly issued by the Office of the Comptroller of the Currency, Treasury; the Board of Governors of the Federal Reserve System, and the Federal Deposit Insurance, „the perception continues to persist in the markets that some companies remain “too big to fail,” - posing, in their view, an ongoing threat to the financial system.<sup>15</sup> It is also added that:<sup>16</sup>

- First, the existence of the “too-big-to-fail” problem reduces the incentives of shareholders, creditors and counterparties of these companies to discipline excessive risk-taking by the companies.
- Second, it produces competitive distortions because companies perceived as “too big to fail” can often fund themselves at a lower cost than other companies. This distortion being regarded as unfair to smaller companies, damaging to fair competition, and such distortion tends to artificially encourage further consolidation and concentration in the financial system.

As well as the important objective of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) aimed at „mitigating the threat to financial stability posed by systemically-important financial companies“,<sup>17</sup> another vital and important means of fostering financial stability in averting another Financial Crisis, safeguarding and assisting financial institutions to navigate periods of financial or economic stress, in the agencies’ experience, is strong capital. In their opinion, the „maintenance of a strong base of capital at the largest, systemically important institutions is particularly important because capital shortfalls at these institutions can contribute to systemic distress and can have material adverse economic effects. Further, they contend that higher capital standards for such institutions would place additional private capital at risk before the Federal deposit insurance fund and the Federal government’s resolution mechanisms would be called upon, and reduce the likelihood of economic disruptions caused by problems at these institutions.<sup>18</sup>

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14 See Federal Reserve, 'Regulatory Capital Rules: Regulatory Capital, Enhanced Supplementary Leverage Ratio Standards for Certain Bank Holding Companies and their Subsidiary Insured Depository Institutions' at page 11 <http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20130709a1.pdf>.

15 See Federal Reserve, 'Regulatory Capital Rules: Regulatory Capital, Enhanced Supplementary Leverage Ratio Standards for Certain Bank Holding Companies and their Subsidiary Insured Depository Institutions' at page 7 <http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20130709a1.pdf>.

16 *ibid*

17 Federal Reserve, 'Regulatory Capital Rules: Regulatory Capital, Enhanced Supplementary Leverage Ratio Standards for Certain Bank Holding Companies and their Subsidiary Insured Depository Institutions' page 8

18 *Ibid* at page 11

### C. The Basel Leverage Ratio's Role as a Supplementary Measure to The Risk Based Capital Adequacy Framework

According to Valladares, the June 2013 proposed leverage ratios by the Basel Committee, is a necessary supplement to the current risk-weighted asset credit risk measurement and is crucial to making banks better capitalized to sustain unexpected losses.<sup>19</sup> Even though many criticisms have arisen in relation to the risk taking incentives that could be induced by such recent Basel leverage proposals, the following observations highlight the importance of incorporating and supplementing risk based capital ratios, leverage ratios and the liquidity requirements with themselves since the implementation of one ratio in isolation, as will be highlighted, is likely to facilitate the tendencies for riskier ventures:

Valladares raises the point that even though critics of the proposed Basel guidelines argue that the leverage ratio would encourage banks to transact riskier on- or off-balance sheet instruments, that:

- if banks were to do so, such added riskiness would, however, raise banks' RWAs and force them to increase their capital. This action would also impact their liquidity coverage ratio by making the banks less liquid since most risky assets do not count for the LCR - which is another reason why the leverage ratio is an important complement to the RWA and liquidity buffers.<sup>20</sup>

In bolstering this viewpoint, Bundesbank Vice President Sabine Lautenschlaeger has reiterated that „the leverage ratio shouldn't be the main gauge because it doesn't demand more capital to back the more loss-prone investments, and thus can give bankers “unhealthy incentives” to take on more risk.“

#### C.II Components of the Basel III Leverage Ratio and Recent Updates to the Components

The Basel III Leverage Ratio is defined as the Capital Measure (the numerator) divided by the Exposure Measure (the denominator), with this ratio expressed as a percentage and with the basis of calculation being the average of the three month-end leverage ratios over a quarter.<sup>21</sup> As reported by DB Research, the Basel Committee's issuance of its consultation paper on common definitions for the non-binding leverage ratio enshrined in Basel III, is not only considered to be an indication of a clear preference to move to a binding leverage ratio, the new Basel definition, it is further contended, would „disallow much of the derivatives netting which had seen US banks post substantially stronger leverage ratios than most European institutions.“<sup>22</sup>

Even though the numerator component is also important, the importance of focussing on the denominator component (which comprises of the exposure measure) of the Basel III Leverage Ratio is also illustrated thus:

19 M Rodriguez Valladares, 'Why Basel' Latest Leverage Ratio is Better' <http://www.americanbanker.com/bankthink/why-basels-latest-leverage-ratio-is-better-1060635-1.html>

20 ibid

21 Basel Committee on Banking Supervision, Consultative Document Revised Basel III Leverage Ratio Framework and Disclosure Requirements at page 5 of 22 <http://www.bis.org/publ/bcbs251.pdf>

22 DB Research, 'Leverage ratio: Pressure on Europe is rising' [http://www.dbresearch.de/servlet/reweb2.ReWEB?addmenu=false&document=PROD000000000317297&rdShowArchivedDocus=true&rwnode=DBR\\_INTERNET\\_DE-PROD\\$NAVIGATION&rwobj=ReDisplay.Start.class&rwsite=DBR\\_INTERNET\\_DE-PROD](http://www.dbresearch.de/servlet/reweb2.ReWEB?addmenu=false&document=PROD000000000317297&rdShowArchivedDocus=true&rwnode=DBR_INTERNET_DE-PROD$NAVIGATION&rwobj=ReDisplay.Start.class&rwsite=DBR_INTERNET_DE-PROD)



Source:<sup>23</sup>

### Visual Overview of the Revised Basel III Leverage Ratio

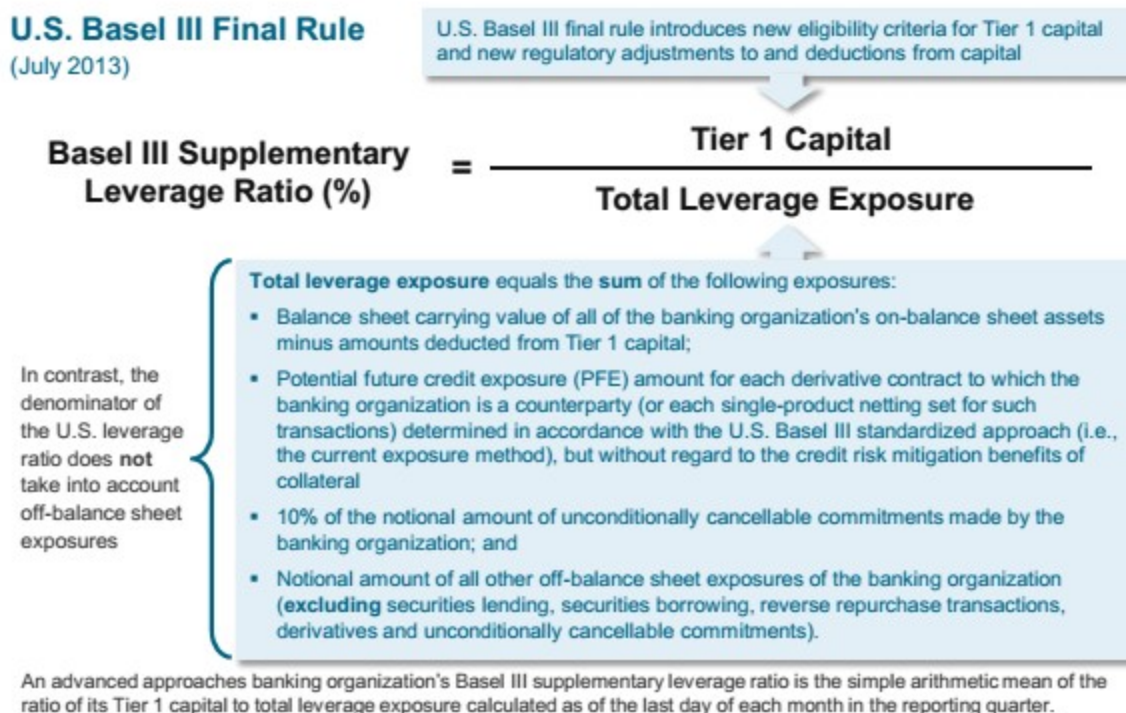


Recent proposals aimed at enhancing the Basel III leverage ratios in the U.S would result in increase to 5 percent of assets for parent companies and 6 percent for their banking subsidiaries under a proposal which will affect the eight globally systemically important banks in the U.S. In November 2012, the FSB and BCBS published a list of banks that meet the Basel Committee for Banking Supervision definition of a G-SIB based on year-end 2011 data. The eight globally systemically important banks in the U.S, identified as G-SIBs by the Financial Stability Board, are Bank of America Corporation, The Bank of New York Mellon Corporation, Citigroup Inc., Goldman Sachs Group, Inc., JP Morgan Chase & Co., Morgan Stanley, State Street Corporation and Wells Fargo & Company.<sup>24</sup>

<sup>23</sup> Davis Polk, 'Basel III Leverage Ratio: US Proposes American Add-On, Basel Committee Proposes Important Denominator Changes' July 19 2013 at page 7

<sup>24</sup> See Financial Stability Board, Update of Group of Global Systemically Important Banks (G-SIBs) (Nov. 1, 2012) [http://www.financialstabilityboard.org/publications/r\\_121031ac.pdf](http://www.financialstabilityboard.org/publications/r_121031ac.pdf)

Source:<sup>25</sup>



#### D. The 2013 Rule and the Final Rule

The 2013 Rule „revised and replaced the agencies’ risk-based and leverage capital standards and established a 3 percent minimum supplementary leverage ratio for banking organizations subject to the agencies’ advanced approaches risk-based capital rules.“<sup>26</sup> The 2013 rule was adopted as a final rule on July 2, 2013.

Moreover, this final rule:

- Implements a revised definition of regulatory capital;
- A new common equity tier 1 minimum capital requirement;
- A higher minimum tier 1 capital requirement; and

For banking organizations subject to the advanced approaches risk-based capital rules, a supplementary leverage ratio that incorporates a broader set of exposures in the denominator.<sup>27</sup>

<sup>25</sup> Davis Polk, 'Basel III Leverage Ratio: US Proposes American Add-On, Basel Committee Proposes Important Denominator Changes' July 19 2013 at page 4

<sup>26</sup> See Federal Reserve, 'Regulatory Capital Rules: Regulatory Capital, Enhanced Supplementary Leverage Ratio Standards for Certain Bank Holding Companies and their Subsidiary Insured Depository Institutions' at page 12 <http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20130709a1.pdf>. and also Federal Reserve, 'Federal Reserve Approves Final Rule...' „ The final rule minimizes burden on smaller, less complex financial institutions. It establishes an integrated regulatory capital framework that addresses shortcomings in capital requirements, particularly for larger, internationally active banking organizations, that became apparent during the recent financial crisis. The rule will implement in the United States the Basel III regulatory capital reforms from the Basel Committee on Banking Supervision and certain changes required by the Dodd-Frank Wall Street Reform and Consumer Protection Act.“ See <<http://www.federalreserve.gov/newsevents/press/bcreg/20130702a.htm>>

<sup>27</sup> See Federal Reserve, Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Capital Adequacy, Transition Provisions, Prompt Corrective Action, Standardized Approach for Risk-weighted Assets, Market Discipline and Disclosure Requirements, Advanced Approaches Risk-Based Capital Rule, and Market Risk Capital Rule <http://www.federalreserve.gov/bcreg/20130702a.pdf>

Following the publication of the U.S. Basel III Final Rule, many U.S. banking agencies proposed higher leverage capital requirements for the eight U.S. bank holding companies (BHCs) which have been identified by the Financial Stability Board, as global systemically important banks („referred to as „covered BHCs“) and their insured depository institution (IDI) subsidiaries: namely, Bank of America Corporation, The Bank of New York Mellon Corporation, Citigroup Inc., Goldman Sachs Group, Inc., JP Morgan Chase & Co., Morgan Stanley, State Street Corporation and Wells Fargo & Company.

## **DII. Arguments put forward by US Federal Agencies in Support of Recent Proposals**

According to a report by the Federal Reserve, the following arguments were provided in support of the need for revisions to the Basel Leverage Ratios:<sup>28</sup>

- BCBS’s approach for determining the minimum level of the Basel III leverage ratio was different than the calibration approach described above for the risk-based capital ratios.
- The BCBS used the most loss-absorbing measure of capital, common equity tier 1 capital, as the basis for calibration for the risk-based capital ratios, but not for the Basel III leverage ratio. In addition, the BCBS did not calibrate the minimum Basel III leverage ratio to meet explicit loss absorption and market confidence objectives as it did in calibrating the minimum risk-based capital requirements and did not implement a capital conservation buffer level above the minimum leverage ratio. Rather, the BCBS focused on calibrating the Basel III leverage ratio to be a backstop to the risk-based capital ratios and an overall constraint on leverage.
- The agencies believe that while the establishment of the Basel III leverage ratio internationally is an important achievement, further steps could be taken to ensure that the risk-based and leverage capital requirements effectively work together to enhance the safety and soundness of the largest, most systemically important banking organizations.

Furthermore, the agencies are of the opinion that the proposed rule would permit covered BHCs and their IDI subsidiaries to fund themselves more than 90 percent with debt while still satisfying the proposed leverage thresholds.<sup>29</sup>

Having highlighted the above, general consensus appears to favour proposals relating to the increase of Basel Leverage ratios in the U.S – with many commentators having considered the previous ratios to be inadequate.

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<sup>28</sup> Federal Reserve, 'Regulatory Capital Rules: Regulatory Capital, Enhanced Supplementary Leverage Ratio Standards for Certain Bank Holding Companies and their Subsidiary Insured Depository Institutions' pages 16 and 17

<sup>29</sup> Ibid at page 24

## **Arguments Favouring Recent Basel Committee Revisions over those Updates Made to Basel Leverage Ratios in the U.S**

In commencing this section, it needs to be highlighted that the recent moves and proposals in the U.S, in relation to the Basel Leverage Ratio, are very much welcomed and quite encouraging given the prior concerns that the implementation of Basel rules, regulations and initiatives appeared to be implemented at a slow pace in the U.S. The recent proposals in the U.S serve as indication, not only of the willingness to adopt Basel rules, but also reveal the extra steps being taken to ensure that financial stability is fostered and more rigid and stringent measures to avert another global scale crisis.

Arguments favouring recent Basel Committee updates over those proposals recently introduced in the US, are partly based on the following:

- 1) The fact that revisions and proposals undertaken in the U.S are premised on Tier 1 capital, instead of higher-quality Core Tier 1.
- 2) Recent Basel Guidelines (June 2013) are more extensive in scope as opposed to the denominator of the U.S. leverage ratios which are based on original 2010 Basel Leverage ratios.
- 3) The cumbersome nature of the supplementary leverage ratio – which in the opinion of many commentators, will be more burdensome for subsidiaries of BHCs to comply with than the generally applicable leverage ratio for U.S. banks. It is calculated using a „tighter definition of Tier 1 capital in the numerator and the denominator includes off-balance sheet exposures such as the grossing-up of derivatives to include collateral and cash.“ (which is why many banks are likely to want to evade as much inclusion of such derivatives in the denominator – given the value/magnitude of derivatives). The 6% standard is considered by many to be onerous for bank subsidiaries covered by the proposal and may encourage banking groups to conduct certain activities, such as derivatives based activities, away from their subsidiaries. Furthermore, an introduction of the supplementary leverage ratio, it is most likely envisaged, will result in lower dividends being distributed by the BHCs.
- 4) The focus accorded to disclosures of the numerator and denominator components of the Basel Leverage Ratios in the Basel June 2013 Guidelines.

According to paragraph 43 of the Consultative Document on the Revised Basel III Leverage Ratio framework and Disclosure Requirements:<sup>30</sup>

- Public disclosure by banks of their Basel III leverage ratios commences on 1<sup>st</sup> January 2015
- To enable market participants reconcile leverage ratio disclosures with banks' published financial statements from period to period, and to compare the capital adequacy of banks across jurisdictions with varying accounting frameworks, it is important that banks adopt a consistent and common disclosure of the main components of the leverage ratios while reconciling to their published financial statements.

Paragraphs 44 as well as 45<sup>31</sup> underline the Committee's commitments to, as well as its realisation

<sup>30</sup> June 2013, Bank for International Settlements Publications, page 11

<sup>31</sup> Which states that „to facilitate consistency and ease of use of disclosures relating to the composition of the leverage

of the need for focus on measures and initiatives aimed at facilitating the harmonisation and consistency of disclosure requirements across various jurisdictional frameworks which would also result in the facilitation of the realisation of the Basel Committee's objectives and aims.

The need for consistency in the implementation of Basel requirements and regulations is all the more vital and necessary if practices relating to regulatory capital arbitrage are to be minimised and controlled. Differences in the implementation of Basel requirements and rules across various jurisdictions are evident from the very stringent application of rules in certain jurisdictions – as is recently evidenced by the U.S initiatives aimed at increasing Basel III Leverage ratios (above global standards) to those jurisdictions where more lax approaches have been adopted.

Evidence which highlights the fact that different countries could be inconsistently implementing parts of the Basel rules and regulations – either by consolidating or weakening the original requirements, is illustrated through the following:<sup>32</sup>

- In the EU, in relation to the Capital Requirements Directive/Regulation IV (CRD/RIV) - where based on evidence from latest proposals and negotiations, EU member states will assume greater independence in their ability to increase capital requirements.
- In China, where the implementation framework for Basel III is considered to be more stringent than the international standard (with a requirement of a higher core tier 1 capital adequacy ratio – 5% as opposed to 4.5%, as well as a higher leverage ratio requirement of 4% as opposed to 3%).
- In the U.S, as discussed through this paper, through recent proposals relating to standard and supplementary leverage ratios.

Having highlighted the above, it is also worth mentioning that over compliance with rules (and particularly where it appears that such rules or ratios appear to be insufficient) – as indicated by the increased ratios in the U.S, is certainly much better than under compliance.

## **E. Sound Bank Stress Testing Techniques As Complementary Measures**

Sound stress testing practices, as identified by the Basel Committee, should embrace the provision of forward-looking assessments of risk, complement information from models and historical data, - as well as constitute an integral part of capital and liquidity planning. Even though the Basel capital accords have evolved, recurring lessons related to failures of mechanical approaches such as those of bank stress testing techniques, provide reflections of the fact that internal ratings based models should not always be expected to provide credible results where standardization, particularly, is unduly resorted to.

Standardization is certainly required for the basis of comparability – however, a healthy balance needs to be struck between the extent of standardization and the need to obtain credible, reliable and accurate results.

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ratio, and to mitigate the risk of inconsistent formats undermining the objective of enhanced disclosure, the Basel Committee has agreed that internationally active banks across Basel member jurisdictions, will be required to publish their leverage ratio according to a common template.“

32 See JP Morgan, 'Basel III Implementation: Is the Industry Running Out of Time?'

[http://www.jpmorgan.com/tss/General/Basel\\_III\\_implementation\\_Is\\_the\\_industry\\_running\\_out\\_of\\_time\\_/1320504512062](http://www.jpmorgan.com/tss/General/Basel_III_implementation_Is_the_industry_running_out_of_time_/1320504512062)

As is the case with the Basel Leverage Ratio, bank stress techniques should not be used in isolation. In effectively performing their roles as monitoring, predatory devices and risk management tools, they will greatly assist Basel Leverage ratios, as well as the risk based capital adequacy framework, in achieving their intended aims and objectives. According to the Basel Committee,<sup>33</sup> the financial crisis not only revealed weaknesses in organisational aspects of stress testing programmes in the sense that prior to the crisis, stress testing at some banks was carried out on an isolated basis ( by the risk function with little interaction with business areas), but also the fact that test analyses were not credible. Furthermore, the mechanical approaches adopted by certain organisations resulted in inaccurate and unreliable results being generated. As rightly observed, by the Committee, „mechanical approaches can neither fully take account of changing business conditions nor incorporate qualitative judgments from across the different areas of a bank.“

Further identified weaknesses of stress testing programmes, as identified by the Committee include:<sup>34</sup>

- Stress testing frameworks were usually not flexible enough to respond quickly as the crisis evolved (eg inability to aggregate exposures quickly, apply new scenarios or modify models).
- Weaknesses in infrastructure limited the ability of banks to identify and aggregate exposures across the bank. This weakness limits the effectiveness of risk management tools – including stress testing.
- An appropriately conducted firm-wide stress test would have beneficially drawn together experts from across the organisation. For example, the expertise of retail lenders, who in some cases were reducing exposure to US subprime mortgages, should have counteracted the overly optimistic outlook of traders in securities backed by the same subprime loans.
- That particular risks that were not covered in sufficient detail in most stress tests include: the behaviour of complex structured products under stressed liquidity conditions; basis risk in relation to hedging strategies; pipeline or securitisation risk; contingent risks; and funding liquidity risk.
- That, had stress tests adequately captured contractual and reputational risk associated with off-balance sheet exposures, concentrations in such exposures may have been avoided.

It was also identified by the Committee that most risk management models, including stress tests, use historical statistical relationships to assess risk – under the assumption that risk is driven by a known and constant statistical process, that historical relationships constitute a good basis for forecasting the development of future risks. The Financial Crisis, according to them, has revealed serious flaws with relying solely on such an approach.

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33 See Basel Committee on Banking Supervision, Principles for Sound Stress Testing Practices and Supervision May 2009 at pages 8-12 <http://www.bis.org/publ/bcbs155.htm>

34 See *ibid*

## F. Conclusion

The effects and consequences of the cumbersome nature of the supplementary leverage ratio, it is envisaged, will induce some banking groups to conduct certain activities, such as derivatives based ventures, away from their subsidiaries. Other consequences of recently introduced proposals in the U.S (on Basel III), include a reference by Myles to a separate Federal Reserve proposal – which from December 2012, „requires certain foreign banks to establish a U.S intermediate holding company to house their operations.“ In Myles opinion, if these holding companies' asset value is significantly high, they would have to comply with the higher leverage ratios.<sup>35</sup>

Despite the merits of improved consistency and harmonisation in the implementation of Basel rules and regulations – such merits including enhanced facilitation of disclosure and transparency, a balance also needs to be struck between the need to avoid a „one size fits all“ situation whereby the needs of respective jurisdictions are not met.

The need to achieve more relevant and accurate results is evidenced by the evolution of the Basel capital accords from the rather „crude“ original 1988 Capital Accord (which even though risk based, focussed exclusively on credit risk and did not apply risk weights in a specific and tailor made manner to asset classes) to the adoption of more tailor made and specific internal ratings models.

Whilst comparability and consistency, which is sometimes attributed to simpler and cruder models, may be desired, it is also vital that results derived from such models reflect the reality and accuracy of prevailing conditions – hence the need to provide for models which provide and generate credible results.

As identified by the Basel Committee on Banking Supervision in its discussion paper „The Regulatory Framework: Balancing Risk Sensitivity, Simplicity and Comparability,“<sup>36</sup> the disadvantages attributed to undue complexity and reduced comparability in the capital framework, „potentially“ include:

- Increased difficulties for bank management in understanding the regulatory regime;
- The challenges arising in capital planning;
- Less accurate risk assessments;
- The creation of regulatory gaps and opportunities for arbitrage;
- An undermining of the ability of supervisors to effectively assess the capital adequacy of banks
- Impediments presented to the effective review of the capital management process by supervisors.

Achieving an appropriate balance between consistency, comparability, standardization and the need

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<sup>35</sup> Myles also adds that this is exacerbated by the fact that foreign banks are the biggest dealers in US treasuries – „which are penalised by un-weighted measures such as leverage ratios“ and that further, it is also possible that branches might have to comply with U.S leverage ratios – based on how the Fed Reserve construed its comparability test.“ See D Myles, 'How U.S 5% Leverage Ratio Could Catch Foreign Banks' <<http://www.iflr.com/Article/3234308/Banking/How-US-5-leverage-ratio-could-catch-foreign-banks.html>

<sup>36</sup> July 2013, Bank for International Settlements Publications at page 12

for accurate results is demonstrated by the Federal Reserve's flexible approach in applying bank stress testing techniques. As reported,<sup>37</sup> through the provision of a common set of scenarios to all firms, the results of company-run and supervisory stress tests for bank holding companies are intended to be based on comparable underlying assumptions. To further enhance comparability, the supervisory stress tests and company-run stress tests conducted under the Dodd Frank stress test rules use the same set of capital action assumptions.<sup>38</sup> Despite the progress made by both the Basel Committee on Banking Supervision and the Federal Reserve (which is to be commended) in many areas, and particularly stress testing techniques, more focus should also be accorded to medium sized firms.

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37 See Dodd-Frank Act Stress Test 2013: Supervisory Stress Test Methodology and Results March 2013 at pages 5 and 6 BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM  
[http://www.federalreserve.gov/newsevents/press/bcreg/dfast\\_2013\\_results\\_20130314.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/dfast_2013_results_20130314.pdf)

38 *ibid*



## G. References

- Basel Committee on Banking Supervision, 'Capital Requirements and Bank Behaviour: The Impact of the Basel Accord' Basel Committee on Banking Supervision Working Papers April 1999
- Basel Committee on Banking Supervision, 'Consultative Paper on a New Capital Adequacy Framework' 3rd June 1999 <<http://www.bis.org/press/p990603.htm>>
- Basel Committee on Banking Supervision, 'The Internal Ratings Based Approach' Supporting Document to the New Basel Capital Accord 2001 <http://www.bis.org/publ/bcbsca05.pdf>
- Basel Committee on Banking Supervision, Consultative Document, Standard Approach to Credit Risk, Supporting Document to the New Basel Accord January 2001 <http://www.bis.org/publ/bcbsca04.pdf>
- Basel Committee on Banking Supervision, Principles for Sound Stress Testing Practices and Supervision May 2009 at pages 8-12 <http://www.bis.org/publ/bcbs155.htm>
- Basel Committee on Banking Supervision, Consultative Document Revised Basel III Leverage Ratio Framework and Disclosure Requirements June 2013 <http://www.bis.org/publ/bcbs251.pdf>
- Basel Committee on Banking Supervision, Discussion Paper 'The Regulatory Framework: Balancing Risk Sensitivity, Simplicity and Comparability' July 2013 Bank for International Settlements Publications
- Basel Committee for Banking Supervision, 'Global Systemically Important Banks: Assessment Methodology and the Additional Loss Absorbency Requirement' July 2013 <http://www.bis.org/publ/bcbs207.pdf>
- DB Research, 'Leverage Ratio: Pressure on Europe is Rising' [http://www.dbresearch.de/servlet/reweb2.ReWEB?addmenu=false&document=PROD0000000000317297&rdShowArchivedDocus=true&rwnode=DBR\\_INTERNET\\_DE-PROD\\$NAVIGATION&rwobj=ReDisplay.Start.class&rwsite=DBR\\_INTERNET\\_DE-PROD](http://www.dbresearch.de/servlet/reweb2.ReWEB?addmenu=false&document=PROD0000000000317297&rdShowArchivedDocus=true&rwnode=DBR_INTERNET_DE-PROD$NAVIGATION&rwobj=ReDisplay.Start.class&rwsite=DBR_INTERNET_DE-PROD)
- Federal Reserve, 'Regulatory Capital Rules: Regulatory Capital, Enhanced Supplementary Leverage Ratio Standards for Certain Bank Holding Companies and their Subsidiary Insured Depository Institutions' <http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20130709a1.pdf>.
- Federal Reserve, Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Capital Adequacy, Transition Provisions, Prompt Corrective Action, Standardized Approach for Risk-weighted Assets, Market Discipline and Disclosure Requirements, Advanced Approaches Risk-Based Capital Rule, and Market Risk Capital Rule <http://www.federalreserve.gov/bcreg20130702a.pdf>

Federal Reserve, 'Dodd-Frank Act Stress Test 2013: Supervisory Stress Test Methodology and Results' March 2013

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

[http://www.federalreserve.gov/newsevents/press/bcreg/dfast\\_2013\\_results\\_20130314.pdf](http://www.federalreserve.gov/newsevents/press/bcreg/dfast_2013_results_20130314.pdf)

Financial Stability Board, Update of Group of Global Systemically Important Banks (G-SIBs) (Nov. 1, 2012)

[http://www.financialstabilityboard.org/publications/r\\_121031ac.pdf](http://www.financialstabilityboard.org/publications/r_121031ac.pdf)

Morgan JP, 'Basel III Implementation: Is the Industry Running Out of Time?'

[http://www.jpmorgan.com/tss/General/Basel\\_III\\_implementation\\_Is\\_the\\_industry\\_running\\_out\\_of\\_time\\_/1320504512062](http://www.jpmorgan.com/tss/General/Basel_III_implementation_Is_the_industry_running_out_of_time_/1320504512062)

Myles D, 'How U.S. 5% Leverage Ratio Could Catch Foreign Banks'  
<<http://www.iflr.com/Article/3234308/Banking/How-US-5-leverage-ratio-could-catch-foreign-banks.html>

Polk D, 'Basel III Leverage Ratio: US Proposes American Add-On, Basel Committee Proposes Important Denominator Changes' July 19 2013

Rodriguez Valladares M, 'Why Basel' Latest Leverage Ratio is Better'

<http://www.americanbanker.com/bankthink/why-basels-latest-leverage-ratio-is-better-1060635-1.html>

Saidenberg M and Schuermann T, 'The New Basel Capital Accord and Questions for Research' (2003) Wharton Financial Institutions Center Working Paper 2003