Comment on the Basel Committee on Banking Supervision’s Consultative Document entitled Strengthening the Resilience of the Banking Sector

Presented by:
RiskMetrics Group - Risk Management
1 Commodity Quay
East Smithfield
London, E1W 1AZ

16 April 2010
April 16, 2010

Basel Committee on Banking Supervision
Bank for International Settlements
Centralbahnplatz 2
CH-4002 Basel
Switzerland
e-mail to baselcommittee@bis.org

Re: Comment on the Basel Committee on Banking Supervision’s Consultative Document entitled Strengthening the Resilience of the Banking Sector

RiskMetrics Group is delighted to have the opportunity to comment on the Basel Committee on Banking Supervision’s Consultative Document entitled Strengthening the resilience of the banking sector, published in December 2009.

We applaud the Committee for reinforcing the concept that financial institutions posing higher risks to the system must hold more capital. Most importantly, during this challenging economic environment, addressing the issue of the quality and quantity of capital is crucial in mitigating risk and complexity in the banking system. We also welcome the Committee’s efforts to look at financial institutions on a common basis to guarantee a level playing field in the banking industry.

However, the introduction of this new comprehensive set of rules should be well balanced in order to avoid thwarting financial innovation, which we believe serves an important role in economic development and the ability for financial systems to efficiently manage risk.

In the next pages we will provide some general and specific remarks to the document at issue.
Table of Contents

1. General Comment........................................................................................................3
2. Specific Comments......................................................................................................3
   (i) On the Quality of Capital and Leverage Ratio.......................................................3
   (ii) On Counterparty Risk proposals........................................................................4
   (iii) On Procyclicality................................................................................................4
   (iv) On Changes to PD calculation............................................................................4
   (v) On measures for systemically relevant institutions.............................................5
   (vi) On Impact assessment and calibration...............................................................5
   European and US Banks”.........................................................................................6
1. General Comment

We are supportive of this new regulatory framework that strengthens the framework of financial institutions and, at the same time, extends the scope to more adequately capture new risk exposures of Banks generated by financial innovation seen in recent years.

Moreover, we welcome the Committee’s effort to pursue the goal of leveling the playing field -- especially through the introduction of provisions on the quality of capital which was one of the main goals of the original version of the Basel Accord.

However, we are concerned about the excessive application of stress-based risk metrics that undermine another main goal of the Accord; that is, the risk sensitivity of capital requirements. The reliance on stress-based metrics, which are rather pervasive in this latest consultative proposal, may not only render the new capital requirements “risk-insensitive”, but may also increase the divergence between Regulatory and Economic Capital, with profound implications in terms of Banks’ capital allocations and business models. Therefore, we advocate that the use of stress-based risk measures should be limited in the Pillar 1 context and treated comprehensively under the Pillar 2 framework, where the resilience of banks’ financial conditions would be tested under adverse economic conditions.

2. Specific Comments

(i) On the Quality of Capital and Leverage Ratio

We are supportive of the proposals that the predominant form of Tier 1 capital should consist of common equity and retained earnings, with hybrid capital receiving a far less prominent role as a core buffer. We are also supportive of the introduction of a Leverage Ratio. However, we believe there are material challenges to developing a strict Leverage Ratio that can be applied uniformly on a global basis. First, differences in local GAAP, particularly with regards to the treatment of derivatives, can create extreme divergences in reported leverage among global financial institutions. Even after adjusting for differences in GAAP, global financial institutions can exhibit stark differences in leverage. This leads to a second key point -- structural differences between regional banking systems, as well as operational differences within the tiers of a single banking system, can be significant. Take, for example, the structural and operational differences between US, European, and Asian banking systems and the institutions that operate within each system. As such, we believe the primary challenge will be to craft a specific standard that creates a level playing field and limits the incentive for regulatory arbitrage.

(ii) On Counterparty Risk proposals

On page 34 of the consultative document, the Committee discusses contingent CDS (CCDS). The Committee states that banks may use CCDS as offsets, but for capital purposes must treat the notional as fixed and equal to its current value. We are concerned that this introduces an inconsistency for hedged positions. If a CCDS is purchased as a hedge for a derivative position, and its contingent exposure is tied to that of the derivative, then there should be minimal capital required, limited only to the counterparty concerns of the CCDS itself. But, if the derivative is assessed capital according to a potential future exposure, while the CCDS is treated at its current notional, the hedge will be understated, and excessive capital required.

(iii) On Procyclicality

We are in agreement with the Committee’s goal to reduce procyclicality in order to avoid the amplification of financial shocks from the banking system to the real economy. The focus on specific and generic provisions, through the proposals for the expected loss approach (compared to the incurred loss approach) and the additional capital buffer against excess credit growth, are very welcome. In fact, the dangers of the incurred loss approach were quite evident during the recent financial crises, resulting in the exacerbation of the shock transmission from the banking system. Moreover, the low level of generic provisions at major banks during the period of strong asset growth preceding the recent financial crisis did not lead to appropriate capital buffers for adverse economic cycles. We also believe these measures will develop more risk awareness at the top management levels, with a stronger emphasis placed on evaluating the implication of the internal rating assessment process of borrowers.

(iv) On Changes to PD calculation

As to this specific procyclicality issue, we propose to follow a “Through-The-Cycle” (TTC) philosophy to calibrate the Probabilities of Default (PDs) of an internal rating system, through the adoption of the average historic PDs. According to our experience, the “Through-the-Cycle” philosophy is already adopted by most banks around the world, independently of size and regional factors. On the contrary, resorting to a downturn PD approach (using the highest average PD estimate) could result in double counting of credit risk if applied in conjunction with the other capital buffers related to capital conservation and “excessive” growth. If a downturn PD is implemented, regulatory and economic capital could significantly diverge, thus reducing the risk sensitivity of the proposed measure. However, we are in favour of using the downturn measure as a calibration parameter in case forecasts of the economic cycle should turn negative (at the discretion of National Regulators).

Finally, the use of a “Through-The-Cycle” PD would be in line with the other Internal Ratings-Based (IRB) parameters, all TTC, therefore, leaving the application of the downturn parameters to the Stress Testing implementation under Pillar 2.
(v) On measures for systemically relevant institutions

We are comfortable with the provision of a higher asset correlation for financials, since this recognizes the importance of the Industry Type -- at least for the financials specifically -- in the correlation framework (in addition to PD levels and Size). Moreover, according to our estimates, the multiple of 1.25 seems to be appropriate to take into account the average difference between Financial and Non-Financial companies in terms of asset correlation.

(vi) On Impact assessment and Calibration

To gauge how the trading book can impact capital, we point to the BIS quantitative impact study of the trading book. According to that evidence, the incremental risk charge, stressed VaR, charges on securitization exposures in the trading book have a significant impact on capital. However, not included in this impact study is the capital impact of resecuritisations, off-balance sheet conduits, correlation trading products, and counterparty risk requirements, all of which are included in the reform package.

As such, we believe the capital impacts from the new trading book assessments will exceed those estimates from the 2009 quantitative impact study. These capital effects will likely create an incentive for banks to adjust their trading book exposures in favour of those securities which have a lower capital impact, exit certain lines of business, question the diversification benefits of many exposures, and focus on liquid positions as determined by risk models. This could ultimately lead to reduce transparency in the market with the transfer of higher capital impact exposures to non-regulated entities.

We provide along with this letter a more detailed discussion of the motivation behind our comments on the Leverage Ratio. We thank the Committee for its openness to industry feedback, and remain available for further discussion, should that be desired. The authors of this consultation response can be contacted at cristiano.zazzara@riskmetrics.com or via phone on +44 (0)20.7063.5822.

---

3 See Annex.
Sincerely,

Christopher Finger, Ph.D., Global Head of Research

Cristiano Zazzara, Ph.D., Global Head of Banking Business

Nathan Powell, FRM, Global Head of Financial Sector Analysis

Capital Implications of BIS Proposals at European and U.S. Banks

KEY TAKEAWAYS

The BIS proposed leverage ratio is expected to have a larger impact on European banks relative to US banks based on our analysis. The differences in US and European leverage are attributable primarily to the treatment of derivatives under US GAAP and IFRS, as well as structural differences in regional banks. Our results suggest that the implementation of a uniform leverage ratio will be challenging given these structural and accounting differences.

SUMMARY

Our calculations indicate that European banks, on average, are running a much higher degree of balance sheet leverage relative to US banks. We adjusted European bank assets by netting the derivatives of our IFRS sample, as is required under US GAAP. As an example, Deutsche Bank calculates a leverage ratio of 25x (A/E) as of 3Q09. To put this in perspective, MS, GS, and C had A/E ratios ranging between 13x and 15x. Next, we adjusted balance sheets for off-balance sheet items which the BIS intends to include in its leverage ratio calculation. While we found the level of off-balance sheet assets to be similar, it appears the impact of an end to off-balance treatment for some assets will be greater in Europe.

We also analyzed the capital mix of our survey group. This suggests that European banks have a greater reliance on non-core and Tier 2 capital which receives less importance in the BIS proposals.

We believe that the BIS leverage ratio, as proposed, has the potential to have a greater affect on European banks. While the BIS can develop a ratio that makes appropriate adjustments for local accounting treatments of items such as derivatives, the BIS will be challenged to develop a ratio that can be applied across banks with different business structures.

Chart 1: Adjusted Leverage Ratios at US and European Banks

<table>
<thead>
<tr>
<th>Company</th>
<th>Adjusted Leverage Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of America Corporation</td>
<td>25x</td>
</tr>
<tr>
<td>Barclays Plc</td>
<td>13x-15x</td>
</tr>
<tr>
<td>Banco Bilbao Vizcaya Argentaria</td>
<td>25x</td>
</tr>
<tr>
<td>BNP Paribas</td>
<td>13x-15x</td>
</tr>
</tbody>
</table>

Related Reports

- Asset Quality and Capital Adequacy at US Subsidiaries of Foreign Banks
  - Oct 2009
- Survey of Asset Quality and Reserving at Major Spanish Banks
  - Sep 2009

Related Research Notes

- Barclays plc
  - Dec 2009
- Banco Santander SA
  - Nov 2009
- Banco Bilbao Vizcaya Argentaria
  - Nov 2009
- HSBC Holdings plc
  - Nov 2009
- Deutsche Bank AG
  - Sep 2009

Contacts

Michelle Flaherty
Phone: +44 (0) 207.063.5881
michelle.flaherty@riskmetrics.com
BIS Consultative Document

The BIS, or Bank of International Settlements, is an international organization which enhances cooperation amongst the world’s central banks and other agencies. In December 2009, the BIS published its consultative document describing its proposals for a set of global standards ensuring banks hold sufficient high-quality capital and liquid assets to survive future market crises. The body will spend 2010 evaluating the impact of these proposals before issuing another document at the end of this year. It is presently envisioned that the proposals will be implemented at the end of 2012. Given this extended timescale it is difficult to estimate the ultimate shape of the proposal, but we have made our best estimates using the current information available.

The document outlined five key elements for financial sector reform:

1. Quality, consistency and transparency of the capital base
2. Strengthening of risk coverage of capital base
3. Leverage ratio
4. Counter-cyclical capital buffers
5. Minimum liquidity standard

Our analysis will center on the leverage ratio, which is interrelated with the four other elements, but has garnered the most amount of discussion within the financial community. The BIS intends the leverage ratio to provide a safeguard that will involve fewer calculations, and be more transparent and comparable across institutions. The stated objectives of implementing the leverage ratio are as follows:

- Constrain the build-up of leverage in the banking sector, helping avoid destabilizing deleveraging processes which can damage the broader financial system and the economy; and
- Reinforce the risk-based requirements with a simple, non risk-based “backstop” measure based on gross exposure.

The capital measure is intended to be applicable internationally, across various accounting regimes, therefore necessitating strict definitions of both capital and total exposure. The proposal calls for capital measurement to rely heavily upon Tier 1 capital, comprised largely of common equity. The document also calls for limitations on the number of tiers and sub-tiers allowed in capital computation, likely eliminating Tier 3 entirely and some sub-tiers of Tier 2, placing some banks’ tier 2 capital components at risk of elimination from the calculation.

Gross exposure, as opposed to capital, is likely to be more affected by structural and accounting differences, especially the differences between IFRS and GAAP relating to the netting of derivatives and repos. Currently, financial institutions under IFRS reported derivative assets and liabilities separately, while GAAP institutions make adjustments for netting. In our analysis below, we convert banks reporting under IFRS to GAAP by netting their derivatives, however the BIS proposal suggests that gross reporting of derivatives would be favored. The rationale for gross reporting stems from concern that netted exposure may obscure some counterparty or operational risks more evident.
in gross exposure. The consultative document indicates that netting will not be allowed with respect to repos. However, derivatives exposure may use either the sum of on-balance sheet positive fair values or potential exposure.

Another key element of exposure calculation is the inclusion of all off-balance sheet exposures. From the consultative document:

“OBS items are a source of potentially significant leverage. The failure to include OBS items in the measure of exposure creates an incentive to shift items off the balance sheet to avoid the leverage ratio constraint. The Committee therefore proposes to include the above OBS items using a 100% credit conversion factor. This approach is simple and consistent with the view that OBS items are a significant source of leverage.”
Comparison of Leverage at US and European Banks

Leverage ratios have been implemented in some countries. The US imposed the Tier 1 leverage ratio in 1991 which limits Tier 1 equity to a minimum of 4% of total assets. Switzerland adopted a leverage ratio of 4% as well, but only in 2008, and the regulation allows banks to exclude domestic lending. Canada uses a leverage ratio of 20x (ratio of assets to capital) which also includes some off-balance sheet items. However, it also allows Tier 2 capital to be included in the equity component which differs from the US and Swiss regulations.

In its quarterly reports, Deutsche Bank makes adjustments to its equity and assets to bring them in-line with US GAAP. The difference in both leverage ratios is quite large: 40x under IFRS versus 23x under US GAAP as of 4Q09. Again, the primary impact to the calculation is the impact of netting rules on derivatives. For instance, if we excluded all other adjustments and only made an adjustment for derivatives, leverage would be 25x as of 4Q09.

We use the Deutsche Bank adjustments as a proxy to apply to other European banks. Our intention is to compare the impact of leverage in Europe against that in the US, and we focus on adjusting for derivatives and repos. We acknowledge that this is not an exact science, but rather an exercise to show the impact of derivatives on leverage. As an example, our adjustments to derivatives at Deutsche Bank put their leverage at 29x, compared to 25x using the company's adjustments.

In Tables 1 and 2 on the following page, we provide leverage ratios for a selection of US and European banks: (1) assets / equity, and (2) adjusted assets / equity. Our US sample group includes seven of the largest US commercial banks. We acknowledge that it is difficult to find a perfect US bank to compare against top European banks given the differences in business models. We included GS and MS given that their business models include businesses seen at the largest European banks. BAC, WFC, and USB have the lowest leverage due to their focus on retail banking. JPM and C are predictably in the middle of the range given their business strategies blend both traditional banking and investment banking activities. Finally, GS and MS have the highest leverage which reflects the higher risk appetite of investment banks vis-à-vis retail-focused banks. The average risk-weighted assets / assets ratio was 63%, and ranged from 39% to 88%. There is a clear inverse relationship between leverage and the ratio of RWA / assets.
### Table 1: US Sample Group Leverage as of September 30, 2009

<table>
<thead>
<tr>
<th>Bank</th>
<th>A/E</th>
<th>RWA/A</th>
<th>Market Cap ($bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morgan Stanley</td>
<td>14.7</td>
<td>38.9%</td>
<td>41.0</td>
</tr>
<tr>
<td>Goldman Sachs Group, Inc.</td>
<td>13.4</td>
<td>46.4%</td>
<td>85.2</td>
</tr>
<tr>
<td>Citigroup Inc.</td>
<td>13.2</td>
<td>52.4%</td>
<td>78.2</td>
</tr>
<tr>
<td>JPMorgan Chase &amp; Co.</td>
<td>12.6</td>
<td>60.6%</td>
<td>173.3</td>
</tr>
<tr>
<td>U.S. Bancorp</td>
<td>10.2</td>
<td>87.5%</td>
<td>46.9</td>
</tr>
<tr>
<td>Wells Fargo &amp; Company</td>
<td>9.5</td>
<td>83.3%</td>
<td>132.2</td>
</tr>
<tr>
<td>Bank of America Corporation</td>
<td>8.7</td>
<td>68.8%</td>
<td>141.6</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>11.8</strong></td>
<td><strong>62.6%</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Table 2: European Banks Leverage Ratio (Reported and US GAAP-adjusted) and RWA/A

<table>
<thead>
<tr>
<th>Bank</th>
<th>A/E</th>
<th>Adj. A/E</th>
<th>RWA/A</th>
<th>Reporting Date</th>
<th>Market Cap ($bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deutsche Bank</td>
<td>46.5</td>
<td>29.2</td>
<td>17.3%</td>
<td>Q309</td>
<td>43.3</td>
</tr>
<tr>
<td>Deutsche Postbank</td>
<td>43.3</td>
<td>43.2</td>
<td>31.5%</td>
<td>Q309</td>
<td>4.9</td>
</tr>
<tr>
<td>BNP Paribas</td>
<td>35.2</td>
<td>26.0</td>
<td>25.8%</td>
<td>Q408</td>
<td>96.4</td>
</tr>
<tr>
<td>Credit Agricole</td>
<td>32.4</td>
<td>26.5</td>
<td>20.0%</td>
<td>Q209</td>
<td>42.5</td>
</tr>
<tr>
<td>Barclays</td>
<td>31.7</td>
<td>20.8</td>
<td>26.3%</td>
<td>Q209</td>
<td>57.9</td>
</tr>
<tr>
<td>Commerzbank</td>
<td>31.3</td>
<td>23.7</td>
<td>32.8%</td>
<td>Q309</td>
<td>11.2</td>
</tr>
<tr>
<td>UBS</td>
<td>31.2</td>
<td>20.9</td>
<td>14.3%</td>
<td>Q309</td>
<td>49.8</td>
</tr>
<tr>
<td>Societe Generale</td>
<td>27.6</td>
<td>20.2</td>
<td>30.6%</td>
<td>Q408</td>
<td>40.3</td>
</tr>
<tr>
<td>Credit Suisse*</td>
<td>20.1</td>
<td>20.1</td>
<td>20.9%</td>
<td>Q309</td>
<td>59.4</td>
</tr>
<tr>
<td>HSBC</td>
<td>19.3</td>
<td>16.9</td>
<td>47.9%</td>
<td>Q209</td>
<td>199.0</td>
</tr>
<tr>
<td>BBVA</td>
<td>17.5</td>
<td>17.5</td>
<td>54.1%</td>
<td>Q309</td>
<td>69.8</td>
</tr>
<tr>
<td>Unicredito</td>
<td>16.2</td>
<td>15.9</td>
<td>48.0%</td>
<td>Q309</td>
<td>43.3</td>
</tr>
<tr>
<td>Santander</td>
<td>15.6</td>
<td>14.6</td>
<td>50.8%</td>
<td>Q309</td>
<td>135.2</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>28.3</strong></td>
<td><strong>22.7</strong></td>
<td><strong>32.3%</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Credit Suisse reports on a US GAAP basis. No adjustment was required.

**Note:** The US data is as of 3Q09, while the European data is as of the bank’s last reporting date in which derivative assets and liabilities were reported. Please note dates vary as some sample banks do not report derivatives in every period.
Our European sample banks yielded higher leverage and lower RWA/A ratios than their US counterparts. However, similar to the US group, those banks with large retail businesses showed a lower degree of leverage both on a reported and adjusted basis. The Spanish banks, Santander and BBVA, with relatively small investment portfolios were among the lowest levered institutions alongside Unicredito. At the far end of the spectrum was Deutsche Bank with its reported leverage ratio of 46.5x ranking highest in the sample, followed by Deutsche Postbank at 43.3x. When adjusted for derivatives, Deutsche Bank’s A/E falls 16 points, but remains above the group average. Commerzbank also has a high A/E ratio of 23.7x following the adjustment of derivatives. The French banks BNP, SocGen and Credit Agricole, were at or above the sample average. These three banks are active in retail and commercial lending, as well as trading operations. When adjusted for derivatives, the French banks fell 7 to 10 points, but still remained at or above the adjusted average. Swiss banks UBS and Credit Suisse were similar to the French banks in balance sheet composition, but adjusted leverage was at or slightly lower than the average.

European banks averaged a RWA/A ratio of 32.3%, approximately one-half of the level at US banks. Similar to the US, retail-oriented banks had a higher percentage of risk-weighted assets. However, the highest value of 54% reported by BBVA is significantly lower than that of similarly structured banks in the US, which reported RWA/A in the range of 80%. On the low side of the scale, UBS and Deutsche Bank were outliers at 14% and 17%, respectively.

Conclusions

Our calculations indicate that European banks, on average, are running a higher degree of balance sheet leverage relative to US banks, even after adjusting for major accounting differences. Therefore, we believe that the BIS leverage ratio has the potential to have a greater affect on European banks. We acknowledge the limitations of our calculations for bringing banks under US GAAP. However, we would note that Deutsche Bank’s own calculations show it has a leverage ratio of 23x under US GAAP, still well above that of US banks. Credit Suisse, which reports under US GAAP, has leverage of 20x.

While any leverage ratio will be adjusted for local GAAP, inherent differences in the structure of regional banks add an additional layer of complexity to using a standardized measure. The differences between the US banks and European banks are attributable primarily to the differences in the way these banks are structured. We believe this creates a challenge for using a standardized leverage ratio that can be applied on a global scale.
Leverage Adjusted for Off-Balance Sheet Exposure

To evaluate the effects of potential regulation requiring banks to include off-balance sheet exposures in the leverage ratio, we have added these amounts to the total assets of our sample institutions. Average ratios of off-balance sheet assets to on-balance sheet assets were similar between the two groups, at around 18.5%. However, the average adjusted A/E ratio increased significantly more for European banks (24.5%), than for US banks (17.0%) when the off-balance sheet items are included. This implies that European banks will likely be more affected by any new regulation prohibiting the securitization of certain assets. The adjusted ratios further widen the gap between our two sample groups, with the adjusted European A/E ratio reaching 35.7x, over 2.5x larger than the US average of 13.8x. One noteworthy adjustment made to US banks that was not made to our European sample was the removal of 1-4 family securitizations from off-balance sheet assets since SFAS 166/167 may allow for government guaranteed mortgages to avoid re-consolidation. Unfortunately, adequate disclosure of similar holdings by our European banks were not available, however we do not believe the adjustment would be as significant as for the US sample.

Within the US sample, BAC, C and WFC had the highest amount of off-balance sheet exposures with each holding an amount equal or greater than 30% of current total assets. This is in large part due to their large securitization activities, especially credit cards. BAC, which started with the lowest leverage ratio of the group, saw its A/E rise to 11.3x, but remained under the sample average. WFC and C, showed the largest increases in their ratios but both remained comfortably below 20x. The two investment banks, GS and MS, although starting from the highest A/E base, showed little movement in the adjusted figure given their low off-balance sheet assets.

Table 3: US Banks Leverage Ratio adjusted for Off-Balance Sheet Exposure as of September 30, 2009

<table>
<thead>
<tr>
<th>A/E</th>
<th>Adj. A/E</th>
<th>Off-Balance Sheet Exposure ($m)</th>
<th>Off-BS/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total Assets</td>
<td>1-4 Family Assets</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>14.7</td>
<td>15.8</td>
<td>65,993.0</td>
</tr>
<tr>
<td>Goldman Sachs Group, Inc.</td>
<td>13.4</td>
<td>13.8</td>
<td>25,511.0</td>
</tr>
<tr>
<td>Citigroup Inc.</td>
<td>13.2</td>
<td>17.5</td>
<td>637,696.0</td>
</tr>
<tr>
<td>JPMorgan Chase &amp; Co.</td>
<td>12.6</td>
<td>14.9</td>
<td>371,678.0</td>
</tr>
<tr>
<td>U.S. Bancorp</td>
<td>10.2</td>
<td>10.3</td>
<td>676.0</td>
</tr>
<tr>
<td>Wells Fargo &amp; Company</td>
<td>9.5</td>
<td>12.9</td>
<td>438,402.0</td>
</tr>
<tr>
<td>Bank of America Corporation</td>
<td>8.7</td>
<td>11.3</td>
<td>669,094.0</td>
</tr>
<tr>
<td>Average</td>
<td>11.8</td>
<td>13.8</td>
<td></td>
</tr>
</tbody>
</table>
Our European sample displayed a similar level of exposure, but the addition of these assets in the A/E calculation resulted in a more significant impact given the higher existing levels of leverage. Trends, however, were similar as the retail focused banks displayed the highest off-balance sheet/assets ratios. Unicredito, BBVA, HSBC, and Credit Suisse led the group, followed closely by Santander. The institutions with more significant investment banking operations held relatively lower off-balance sheet assets, as UBS and Deutsche Bank were among the lowest in the sample. As a result, the leverage ratios of the retail banks were more seriously affected by the inclusion of off-balance sheet assets, while the investment banks experienced only small increases to their already high leverage ratios.

Table 4: European Banks Leverage Ratio adjusted for Off-Balance Sheet Exposure

<table>
<thead>
<tr>
<th>Bank</th>
<th>A/E</th>
<th>Adj. A/E</th>
<th>Off-BS/A</th>
<th>Reporting Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSBC</td>
<td>19.3</td>
<td>23.9</td>
<td>23.5%</td>
<td>Q209</td>
</tr>
<tr>
<td>Santander</td>
<td>17.2</td>
<td>20.5</td>
<td>19.3%</td>
<td>Q209</td>
</tr>
<tr>
<td>BNP Paribas</td>
<td>35.2</td>
<td>40.4</td>
<td>14.8%</td>
<td>Q408</td>
</tr>
<tr>
<td>BBVA</td>
<td>20.3</td>
<td>25.4</td>
<td>24.8%</td>
<td>Q408</td>
</tr>
<tr>
<td>Credit Suisse</td>
<td>20.1</td>
<td>24.7</td>
<td>22.9%</td>
<td>Q309</td>
</tr>
<tr>
<td>Barclays</td>
<td>31.7</td>
<td>36.0</td>
<td>13.3%</td>
<td>Q209</td>
</tr>
<tr>
<td>UBS</td>
<td>31.2</td>
<td>32.8</td>
<td>5.0%</td>
<td>Q309</td>
</tr>
<tr>
<td>Unicredito</td>
<td>16.2</td>
<td>22.8</td>
<td>41.1%</td>
<td>Q309</td>
</tr>
<tr>
<td>Deutsche Bank</td>
<td>46.5</td>
<td>50.8</td>
<td>9.2%</td>
<td>Q309</td>
</tr>
<tr>
<td>Credit Agricole</td>
<td>32.4</td>
<td>36.1</td>
<td>11.6%</td>
<td>Q209</td>
</tr>
<tr>
<td>Societe Generale</td>
<td>27.6</td>
<td>31.9</td>
<td>15.6%</td>
<td>Q408</td>
</tr>
<tr>
<td>Commerzbank</td>
<td>31.3</td>
<td>35.2</td>
<td>12.6%</td>
<td>Q309</td>
</tr>
<tr>
<td>Deutsche Postbank</td>
<td>43.3</td>
<td>47.5</td>
<td>9.8%</td>
<td>Q309</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>28.6</strong></td>
<td><strong>35.7</strong></td>
<td><strong>18.6%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: The US data is as of 3Q09, while the European data is as of the bank’s last reporting date in which off-balance sheet data was reported. Please note dates vary as some sample banks do not report off-balance sheet items in every period.
Capital Mix of US and European Banks

Returning to the BIS proposals, it appears that the body intends to improve the quality of the capital base used in the calculation of capital and leverage ratios. From the document: “In particular, it is strengthening that component of the Tier 1 capital base which is fully available to absorb losses on a going concern basis, thus contributing to a reduction of systemic risk emanating from the banking sector.” With reference to Tier 1, the intention is to bring this figure closer to local accounting definitions of equity. This may result in non-core Tier 1 securities, such as hybrid securities, receiving less consideration as a form of Tier 1 capital.

Table 5: Capital Mix of Sample Banks

<table>
<thead>
<tr>
<th>Bank</th>
<th>Core Tier 1</th>
<th>Non-core Tier 1</th>
<th>Total Tier 1</th>
<th>Tier 2/Tier 3</th>
<th>Total RBC</th>
<th>Tier 2&amp;3/ Total RBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goldman Sachs Group, Inc.</td>
<td>11.60%</td>
<td>2.90%</td>
<td>14.50%</td>
<td>3.40%</td>
<td>17.90%</td>
<td>18.99%</td>
</tr>
<tr>
<td>UBS</td>
<td>11.49%</td>
<td>3.51%</td>
<td>15.00%</td>
<td>4.40%</td>
<td>19.40%</td>
<td>22.68%</td>
</tr>
<tr>
<td>Credit Suisse</td>
<td>10.90%</td>
<td>5.50%</td>
<td>16.40%</td>
<td>4.50%</td>
<td>20.90%</td>
<td>21.53%</td>
</tr>
<tr>
<td>Commerzbank</td>
<td>10.90%</td>
<td>1.42%</td>
<td>12.32%</td>
<td>2.78%</td>
<td>15.10%</td>
<td>18.43%</td>
</tr>
<tr>
<td>Citigroup Inc.</td>
<td>9.12%</td>
<td>3.64%</td>
<td>12.76%</td>
<td>3.82%</td>
<td>16.58%</td>
<td>23.04%</td>
</tr>
<tr>
<td>Credit Agricole</td>
<td>9.10%</td>
<td>0.60%</td>
<td>9.70%</td>
<td>0.30%</td>
<td>10.00%</td>
<td>3.00%</td>
</tr>
<tr>
<td>HSBC*</td>
<td>8.80%</td>
<td>1.30%</td>
<td>10.10%</td>
<td>3.30%</td>
<td>13.40%</td>
<td>24.63%</td>
</tr>
<tr>
<td>JPMorgan Chase &amp; Co.</td>
<td>8.20%</td>
<td>2.00%</td>
<td>10.20%</td>
<td>3.70%</td>
<td>13.90%</td>
<td>26.62%</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>8.20%</td>
<td>7.20%</td>
<td>15.40%</td>
<td>1.10%</td>
<td>16.50%</td>
<td>6.67%</td>
</tr>
<tr>
<td>Deutsche Bank</td>
<td>8.10%</td>
<td>3.60%</td>
<td>11.70%</td>
<td>1.40%</td>
<td>13.10%</td>
<td>10.69%</td>
</tr>
<tr>
<td>BBVA</td>
<td>8.00%</td>
<td>1.40%</td>
<td>9.40%</td>
<td>4.00%</td>
<td>13.40%</td>
<td>29.85%</td>
</tr>
<tr>
<td>BNP Paribas</td>
<td>7.80%</td>
<td>2.20%</td>
<td>10.00%</td>
<td>4.30%</td>
<td>14.30%</td>
<td>30.07%</td>
</tr>
<tr>
<td>Santander</td>
<td>7.70%</td>
<td>1.50%</td>
<td>9.20%</td>
<td>4.40%</td>
<td>13.60%</td>
<td>32.35%</td>
</tr>
<tr>
<td>Unicreditto</td>
<td>7.55%</td>
<td>0.84%</td>
<td>8.39%</td>
<td>3.69%</td>
<td>12.08%</td>
<td>30.55%</td>
</tr>
<tr>
<td>Societe Generale*</td>
<td>7.30%</td>
<td>2.20%</td>
<td>9.50%</td>
<td>2.80%</td>
<td>12.30%</td>
<td>22.76%</td>
</tr>
<tr>
<td>Bank of America Corp.</td>
<td>7.18%</td>
<td>5.15%</td>
<td>12.33%</td>
<td>4.20%</td>
<td>16.53%</td>
<td>25.41%</td>
</tr>
<tr>
<td>Barclays*</td>
<td>7.10%</td>
<td>3.40%</td>
<td>10.50%</td>
<td>4.00%</td>
<td>14.50%</td>
<td>27.59%</td>
</tr>
<tr>
<td>U.S. Bancorp</td>
<td>6.80%</td>
<td>2.70%</td>
<td>9.50%</td>
<td>3.50%</td>
<td>13.00%</td>
<td>26.92%</td>
</tr>
<tr>
<td>Deutsche Postbank</td>
<td>5.39%</td>
<td>2.61%</td>
<td>8.00%</td>
<td>2.50%</td>
<td>10.50%</td>
<td>23.81%</td>
</tr>
<tr>
<td>Wells Fargo &amp; Company</td>
<td>5.18%</td>
<td>5.45%</td>
<td>10.63%</td>
<td>4.03%</td>
<td>14.66%</td>
<td>27.49%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>8.32%</strong></td>
<td><strong>2.96%</strong></td>
<td><strong>11.28%</strong></td>
<td><strong>3.31%</strong></td>
<td><strong>14.58%</strong></td>
<td><strong>22.65%</strong></td>
</tr>
</tbody>
</table>

*Figures are as reported at June 30, 2009 as no data was available for September 30, 2009.
Across our sample banks we see non-core Tier 1 accounting for a wide range of total Tier 1, from 0.6% up to 7.2%. US banks account for 5 of the 10 highest non-core Tier 1 ratios. Of these banks, we point to those where the core Tier 1 ratio is below the “well-capitalized” minimum of 8%, as is the case for WFC, BAC and USB. The US investment banks, GS and MS, reported higher core Tier 1 ratios of 11.6% and 8.2%, respectively. In Europe, while the amount of non-core Tier 1 was lower on average than in the US, banks in this sample group generally run lower total Tier 1 ratios. Deutsche Postbank is the starkest example with a core Tier 1 ratio of 5.4%. Several other European banks such as Barclays, BNP, Santander, Socìete Generale and Unicredito would see core Tier 1 ratios fall below 8% without the inclusion of these securities. In an expectation of reforms to this layer of capital, many banks purchased their own non-core Tier 1 securities during 2009 resulting in non-cash gains to income due to expansion of credit spreads. While this strategy is perfectly reasonable, firms with low core Tier 1 cannot buy back these entirely without issuing additional core Tier 1 in replacement.

Tier 2 and Tier 3 securities’ placement within the capital base are also likely to be affected by BIS reform. From the document: “Tier 2 will be simplified. There will be one set of entry criteria, removing subcategories of Tier 2. Tier 3 will be abolished to ensure that market risks are met with the same quality of capital as credit and operational risks.” Within our sample group, Tier 2 and Tier 3 holdings ranged from 0.3% of risk-weighted assets to 4.5%. We raise concern not around all banks with high Tier 2 and 3 holdings, but with those for whom these securities comprise the largest percentage of risk-weighted assets. While Credit Suisse and UBS showed large amounts of Tier 2 and 3, their high Tier 1 ratios resulted in a lower impact of these amounts on the total RBC ratio. However, other European banks, namely BNP, Santander and Unicredito, hold Tier 2 and 3 securities amounting to over 30% of the total capital ratio. US banks, with the exception of MS (1.1%), hold between 3.4% and 4.2% of capital in these securities, but higher Tier 1 ratios result in lower concern for these institutions.

Our conclusions from the BIS proposal center on the considerable demands for bank capital stemming from BIS reform. Both US and European banks will be pressured to replace non-core Tier 1 to maintain adequate Tier 1 capital levels. European banks may be disproportionately affected by restrictions and abolishment of Tier 2 and Tier 3 securities, compared to US banks. This is due primarily to higher Tier 1 ratios in those US banks holding large amounts of Tier 2 and Tier 3 capital. While the capital markets environment has improved in 2009 and seen several successful capital raisings by banks on both sides of the Atlantic, we believe that cost of future capital may be a justifiable concern given the number of banks likely to issue in 2010 and 2011. The regulatory and political climate facing financial institutions is likely to result in ROEs running below their historical average, and we expect investors will demand correspondingly higher premiums on capital.
CFRA INDUSTRY REPORT:
EUROPEAN BANKS

Financial Research and Analysis ("FR&A") is a business group of Institutional Shareholders Inc. ("ISS"), a wholly-owned subsidiary of RiskMetrics Group, Inc. (RMG). Other wholly-owned subsidiaries of RMG are: RiskMetrics Solutions, Inc. ("RMI"); Research Recommendations and Electronic Voting Ltd. ("RREV"); and ISS Corporate Services, Inc. ("ICS"). While these subsidiaries are separate legal entities, the products and services provided by these companies are all branded as part of the RiskMetrics Group family.

This issuer that is the subject of this analysis may be a client of ISS, ICS, RMI or another RMG subsidiary, or the parent of, or affiliated with, a client of ISS, ICS, RMI or another RMG subsidiary.

This issuer may have purchased self-assessment tools and publications from ICS, or ICS may have provided advisory or analytical services to the issuer in connection with the proxies described in this report. No employee of ICS played a role in the preparation of this report. If you are an ISS institutional client, you may inquire about any issuer's use of products and services from ICS by emailing disclosure@riskmetrics.com.

This research report has not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. While ISS exercised due care in compiling this analysis, it makes no warranty, express or implied, regarding the accuracy, completeness or usefulness of this information and assumes no liability with respect to the consequences of relying on this information for investment or other purposes. In particular, the research and voting recommendations provided are not intended to constitute an offer, solicitation or advice to buy or sell securities.

RMG is a publicly traded company on the NYSE (Ticker: RMG). As such, RMG is not generally aware of whom its stockholders are at any given point in time. RMG is, however, aware that at the moment, three of RMG's largest stockholders are General Atlantic, Spectrum Equity Investors and Technology Crossover Ventures. These stockholders are private equity investors whose business activities include making equity and debt investments in publicly- and privately-held companies. As a result, occasionally one or more of RMG's stockholders or their affiliates (or their representatives who serve on RMG's Board of Directors) may hold securities, serve on the board of directors and/or have the right to nominate representatives to the board of a company which is the subject of one of ISS' proxy analyses. ISS has established policies and procedures to restrict the involvement of any of RMG's non-management stockholders, their affiliates and board members in the content of ISS' analyses and vote recommendations. Neither RMG's non-management stockholders, their affiliates nor RMG's non-management board members are informed of the contents of any of ISS analyses or recommendations prior to their publication or dissemination.

ISS makes its proxy voting policy formation process and summary proxy voting policies readily available to issuers, investors and others on its public website (http://www.riskmetrics.com/issgovernance/policy/index.html).

About RiskMetrics Group

RiskMetrics Group, Inc. ("RMG") is a provider of risk management and corporate governance products and services to financial market participants. By bringing transparency, expertise and access to the financial markets, RMG helps investors better understand and manage the risks inherent in their financial portfolios. RMG is headquartered in New York with 19 global offices.

For more information, please visit: www.riskmetrics.com.

Contact Us:

North America +1-888-484-1001
London +44-020-07290-2777

Email cservices@riskmetrics.com

For more information, please visit: www.riskmetrics.com.