September 20, 2013

Secretariat of the Basel Committee on Banking Supervision
Bank for International Settlements
CH-4002 Basel
Switzerland
baselcommittee@bis.org

Re: Comments in Response to the Consultative Document on the Revised Basel III Leverage Ratio Framework and Disclosure Requirements

Dear Sirs and Madams:


1 The Associations collectively represent financial institutions accounting for a substantial majority of global banking and financial assets. Descriptions of the Associations are provided in Appendix 1 to this letter.
The Associations support the Committee’s efforts to impose a leverage ratio as a supplemental, backstop measure to the risk-based measure. In its current form, however, the Proposed Framework would greatly increase the denominator of the Basel III leverage ratio (“the Exposure Measure”) by adopting measurement methodologies that the Associations believe would significantly overstate actual economic exposure. If adopted in this form, the Exposure Measure is far more likely to result in the leverage ratio, rather than the risk-based capital ratio, becoming the binding capital measure for a substantial number of banks. Moreover, for banks where the leverage ratio does not become the binding ratio immediately, the very real prospect of it becoming binding in the future or after a stress test will cause these institutions to change their behavior as if it were binding. As a result, institutions will reduce their participation in core financial activities and markets that are critical to the smooth functioning of the financial system.

In particular, the prospect of a binding leverage ratio would effectively require much higher capital for banks’ least risky assets, such as cash and certain highly liquid, highly rated government securities. This would create a perverse incentive to reduce such assets and the activities that generate such assets. For example, the demand for high-quality sovereign debt would be reduced, thereby constricting liquidity, increasing volatility in the markets for such debt, and increasing the cost of government borrowing. The Proposed Framework also would reduce the demand for other forms of low-risk debt and reduce the availability of lines of credit, thus constraining the pool of credit available to support economic growth.

Given these and other potentially important consequences of the Proposed Framework, the GFMA and The Clearing House jointly commissioned a study (“the Leverage Ratio Study” or the “Study”) to assess the impact of the proposed leverage ratio on banks and on relevant product markets. The Study analyzed more than 80 percent of banking institution assets in North America, Europe, and Asia, including 18 global systemically important banks (“G-SIBs”). For more than half of the institutions included in the analysis, the Study found that the leverage ratio of the Proposed Framework, rather than the “all in” Basel III risk-based capital requirements that include applicable buffers and surcharges, would become the binding capital ratio. As a result, the prospect of the Proposed Framework having a fundamental impact on banks and markets is immediate and real.

For all these reasons, the Associations respectfully urge the Committee to adopt the recommendations discussed below.²

² We have, to the extent practicable and in the limited time available, consulted our members on their initial views on the Proposed Framework. Given the complexity of the issues we may receive further comments or data that we will subsequently share with you.
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I. Introduction and Overview

The Associations support the Committee’s efforts to impose a leverage ratio as a means to “reinforce the risk-based requirements with a simple, non-risk-based ‘backstop’ measure.” That is, the two measures are intended to complement each other: the risk-based requirements are intended to be the “binding” requirements for most institutions in order to effectively correlate their capital levels with the actual risks they take, while the leverage ratio is intended to be a supplemental or backstop requirement. By correlating capital to risk, the risk-based requirements avoid creating a perverse incentive to prefer more risky assets to less risky ones, or to penalize institutions for holding highly liquid, low-risk assets such as cash or certain highly rated government securities. At the same time, the supplemental leverage ratio ensures that an appropriate minimum level of capital is held at all times as a backstop in the event that the risk-based measure fails to capture certain risks appropriately. Thus, the risk-based capital requirement is intended to be the binding measure for nearly all institutions, whereas the leverage ratio is intended to be the binding measure in only very limited circumstances and for temporary periods. This has long been the approach adopted by national regulators and the Committee. In fact, the Committee first developed the international risk-based capital framework because a risk-based capital ratio is “the preferred method for assessing the capital adequacy of banks,” and other methods of the capital measure “are considered by the Committee to be supplementary to the risk-weight approach.” In particular, the risk-based approach “provides a fairer basis for making international comparisons between banking systems whose structures may differ”; “allows off-balance-sheet exposures to be incorporated more easily into the measure”; and “does not deter banks from holding liquid or other assets which carry low risk.”

Against this backdrop, the Proposed Framework, for the reasons described below, would significantly enlarge the denominator of the ratio by increasing the Exposure Measure significantly beyond actual economic exposures. The Proposed Framework also asks a question about narrowing the numerator of the ratio, and it discusses the possibility of recalibrating the ratio itself at a later time. The Associations’ very strong concern is that these proposed and potential changes—coupled with the fact that banks will hold a buffer above any minimum required leverage ratio to ensure compliance—would reverse the intended and appropriate relationship between the two types of capital requirements for a substantial number of institutions.

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3 Proposed Framework, at ¶ 2.
5 Basel I, at ¶ 28.
6 Proposed Framework, at ¶¶ 9, 66.
institutions, with the leverage ratio becoming the binding requirement and the risk-based requirements becoming the supplemental backstop.\(^7\) Such a reversal would constitute a fundamental sea-change to the longstanding risk-based focus of the international capital regime,\(^8\) creating perverse incentives that would very likely result in damaging consequences.

**First,** a binding leverage ratio—or one that has a very real prospect of becoming binding—would encourage institutions to hold assets that are more, rather than less, risky; with a “one-size-fits-all” requirement, riskier assets will produce a higher relative return on capital than safer assets. This perverse incentive is fundamentally at odds with prudent risk management and safe and sound banking practices. The Associations urge the Committee to carefully consider this perverse incentive, especially in light of the objective that “the capital adequacy framework should . . . take into account the effects of capital requirements on banks’ risk-taking incentives, e.g. when faced with regulatory constraints on their capital (and therefore the size of their balance sheet), to seek higher-risk assets as a means of boosting expected returns; and promote improved risk measurement and management within banks.”\(^9\)

**Second**—and this is a corollary to the first point—a binding leverage ratio (or the real prospect that a leverage ratio could become binding) effectively penalizes firms for holding risk-free or very low risk assets, such as cash, government securities, and certain retail and corporate assets. In particular, banks will have a disincentive to hold more than the absolute minimum amount of required high-quality liquid assets (“HQLA”) under the Liquidity Coverage Ratio (“LCR”).\(^10\) This disincentive is plainly at cross purposes with the critical need for banking organizations to hold adequate levels of safe, highly liquid assets to manage unexpected customer demands and funding shortfalls. This was a crucial lesson of the financial crisis that has appropriately impelled the Committee and national regulators to substantially enhance

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\(^7\) For example, a recent Bloomberg analysis of the US federal banking agencies’ proposed 5 percent supplementary leverage ratio for G-SIBs found that this higher ratio would become the binding requirement for seven of the eight bank holding companies subject to the proposed rule. See Christopher Payne and Robert Litan, *Higher U.S. Bank Leverage Ratios*, Bloomberg Government (30 July 2013). Moreover, the supplementary leverage ratio would be the binding capital requirement over the minimum risk-based capital requirement plus the G-IB surcharge. See id. The Leverage Ratio Study similarly found that, at a proposed 5 percent leverage ratio under the Proposed Framework, over 90 percent of the surveyed institutions would be constrained by the minimum requirement.

\(^8\) See supra note 4 & 5 and accompanying text.


minimum liquidity requirements. A generally binding leverage ratio undercuts this regulatory imperative.

Moreover, the strong disincentive to hold risk-free assets would be especially problematic in times of stress when risk-averse investors typically attempt to flood the banking system with deposits rather than deploy their cash in riskier investments. As a result, banks would have a strong incentive to limit deposit inflows where incoming cash exceeds minimum amounts required by regulation—a result that could be damaging to the banking sector and the overall economy.

Third, the Proposed Framework’s powerful disincentive to hold low risk assets or to engage in activities that generate low-risk assets, such as market making in the sovereign securities markets, is likely to cause very negative consequences in the markets for government debt, the liquidity of which are critically dependent on securities financing transactions (“SFTs”). The prospect of a binding leverage ratio—which would be made more real by the proposed requirement to apply a gross rather than net measure to SFTs—would encourage banks to reduce their participation in SFTs more generally. The simple chart below vividly illustrates the economic pressure created by a 3 percent leverage charge on a simple reverse repurchase agreement (“reverse repo”) where a bank’s loan is 100 percent collateralized by US Treasury securities; the corporate tax rate is 40 percent; and the after-tax cost of capital is 10 percent:

<table>
<thead>
<tr>
<th>Reverse Repo Example under Basel Proposal (3% requirement)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital requirement</td>
</tr>
<tr>
<td>Corporate Tax Rate</td>
</tr>
<tr>
<td>Cost of Capital (After Tax)</td>
</tr>
<tr>
<td>Required spread to achieve cost of capital</td>
</tr>
<tr>
<td>(3% * 10%/1(1-40%))</td>
</tr>
<tr>
<td>Typical Market Spread</td>
</tr>
</tbody>
</table>

As the chart shows, this common scenario, which is based on very reasonable set of assumptions, would require a 50 basis point spread just to equal the cost of capital. Yet the typical market spread for such a reverse repo today is only 5 basis points—producing a shortfall of 45 basis points. Given this very substantial difference between actual market spread and the required spread to achieve the cost of capital, banks would rationally reduce their participation in SFT markets.

In turn, such a strong disincentive to participate in SFT activities or sovereign securities markets is likely to make those markets less liquid and more volatile—which would

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11 See, e.g., Brian Begalle et al., Fed. Reserve Bank of N.Y. Staff Reports, The Risk of Fire Sales in the Tri-Party Repo Market (May 2013) (noting that poor liquidity and credit risk management practices by various tri-party repo market participants was one of three main systemic risk concerns and arguing for liquidity regulation to avoid fire sales of collateral when no other source of liquidity is available).

12 For example, over 80 percent of the European repo market is secured with government debt. See International Capital Markets Association, European Repo Market Survey No. 25 (conducted December 2012, published March 2013).
increase the cost of government debt—and even small increases in the cost of such debt can have very substantial negative consequences for the broader economy. Further, as banks reduce their participation in the SFT market or reduce the number of transactions, and the market becomes more expensive and less liquid, other financial institutions and firms will find it more difficult to manage their cash balances. The overall SFT market also will suffer increased operational risk as the liquidity of the market decreases and the remaining participants become more concentrated.

Banks with binding leverage ratios would have similar disincentives to participate in other low-risk product and business lines with detrimental effects for the broader economy. In particular, banks may reduce their corporate, trade, project, and infrastructure finance activities if such activities are subject to a 100 percent credit conversion factor (“CCF”) in the Exposure Measure. These are low-risk activities with low drawdown rates that provide critical financing support to commercial entities that have a real impact on global trade and regional development. A 100 percent CCF for such activities also would be inconsistent with other regulatory estimates of the on-balance sheet exposure of these assets.

Fourth, the proposed modifications to the leverage ratio would apply measurement methodologies that substantially overstate actual economic exposure. For example, the Proposed Framework would disregard the exposure-reducing effects of cash collateral received in derivatives transactions, even though receipt of such collateral is a recognized “best practice” for reducing counterparty exposure, and even though the Committee itself has acknowledged the exposure reducing effects of collateral by imposing regulatory margin requirements on derivatives counterparties. This proposed treatment would compound the departure from actual economic exposure by double counting the leverage in the transaction. Unlike other types of assets posted as collateral, received cash collateral in a derivatives transaction is included as an asset on the balance sheet of the receiving institution, and this cash would be included in the Exposure Measure of that institution in addition to the full value of the derivatives exposure, without any offset for the cash collateral received. Such double counting for a cash-collateralized derivatives exposure would incentivize banks to prefer non-cash collateral to cash collateral, contrary to sound risk management practices. Moreover, this double counting would cause particularly acute problems in the context of derivative transactions cleared through Central Counterparties (“CCPs”), which are subject to strict initial and variation margin requirements that reduce exposure. Indeed, such high capital costs on margin requirements could make clearing economically non-viable for clearing members and prohibitively expensive for end-users.

Similarly, the leverage ratio would overstate the actual exposure of SFTs by failing to recognize netting under legally enforceable netting agreements—even though such netting is recognized as reducing actual exposure by both international and US accounting regimes. Moreover, the proposed Exposure Measure for SFTs includes an add-on for counterparty credit exposure. As a result, an SFT exposure could in some circumstances be

13 See Basel Committee on Banking Supervision & Board of the International Organization of Securities Commissions, Margin requirements for non-centrally cleared derivatives, 2 (September 2013) [hereinafter “BCBS Margin Requirements Final Document”].
higher under the proposed Exposure Measure than the maximum amount of loss that the exposure could cause the bank. Similarly inflated results could occur with the measurement of exposures for written credit default swaps (“CDS”) and off-balance sheet items subject to the uniform 100 percent CCF. These measurement methodologies should be adjusted so that measured exposures never exceed actual economic exposures. Without such adjustments, inaccurate measures of exposure would plainly complicate regulatory capital and financial standards, contrary to the goals of the Basel Committee’s discussion paper on balancing risk sensitivity, simplicity, and comparability.14

**Fifth,** the perverse incentives to shed low-risk, highly liquid assets, reduce participation in SFT markets for such assets, collateralize transactions with non-cash collateral or no collateral, and inhibit participation in central clearing have serious implications for systemic risk. The Committee and national regulators have recognized that requiring banks to hold an adequate stock of cash and other HQLA reduces systemic risk by increasing the likelihood that a bank will withstand liquidity shocks during times of stress. Well-functioning and liquid securities markets are also critical to reducing systemic risk by facilitating price discovery so that investors may quickly liquidate assets to meet unexpected funding demands or liquidate a counterparty’s collateral in the event of counterparty default. Through central clearing, CCPs further reduce systemic risk by standardizing contract terms, conducting surveillance of clearing member credit, imposing stringent margin requirements, netting contracts on a multilateral basis, and employing a default management system that requires clearing members to contribute to a default fund that disperses the loss from counterparty default.15 The leverage ratio, as proposed, would substantially increase the cost of each of these activities.

**Sixth,** the leverage ratio as proposed could have a negative impact on the effectiveness of monetary policy. As described above, a binding leverage ratio would create economic incentives for banks to substantially reduce their participation in the market for SFTs. Yet governments rely fundamentally on liquid SFT markets to implement monetary policy and manage bank reserves, which requires banks to be the counterparty to such transactions. For example, as recently as August 2013, the US Federal Reserve has been working with market participants “to ensure that [reverse repos with banks] will be ready to support any reserve draining operations that the Federal Open Market Committee might direct.”16 Similarly, the Bank of England implements monetary policy by lending “predominantly” through repos.17 As a result, any substantial reduction in SFT liquidity could become a significant impediment to the execution of monetary policy. Further, the interaction of the leverage ratio, the LCR, the

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14 See BCBS Simplicity Discussion Paper.
haircuts for SFTs, the ban on naked short selling, and in Europe, the Financial Transaction Tax, may severely affect primary and secondary market liquidity, limiting the reach of ordinary central bank actions to facilitate monetary policy. This in turn could force central banks to intervene, possibly in unprecedented ways.\textsuperscript{18} The prospect of such negative effects on monetary policy argues strongly against policy changes that would make the leverage ratio the binding constraint.

\textit{Finally}, the Associations are concerned that aspects of the Proposed Framework are intended to achieve policy goals that would be much better addressed by different regulatory measures targeted expressly to those goals. For example, the Proposed Framework fails to recognize the plainly exposure-reducing effect of collateral in part due to concerns about underlying price risk or market risk as well as the potential for collateral re-use and re-hypothecation. It also appears in some instances to be aimed at reducing systemic risk (without explaining how a particular type of systemic risk would be constrained by leverage capital) even though numerous other regulatory efforts are targeted specifically at particular systemic risks. While such risks can obviously be legitimate concerns, they would be better addressed with more targeted regulatory measures—as has happened with recent rules on margin requirements that restrict a bank’s ability to re-hypothecate collateral received\textsuperscript{19}—instead of the enlargement of a blunt leverage ratio that can cause unrelated adverse consequences.

Accordingly, the Associations strongly believe that changes to the Proposed Framework are required in order to: more appropriately capture the true exposure amounts that a leverage ratio should capture; avoid making the leverage ratio the generally binding capital requirement; avoid creating perverse incentives for firms to take on more risky assets and shed less risky ones; avoid the counterproductive incentive to hold non-cash collateral for derivatives exposures rather than cash collateral under legally enforceable collateral agreements; and avoid unnecessarily negative consequences in the important markets for highly liquid, low-risk assets—especially at a time when regulators are demanding that firms hold much higher levels of such assets.

In particular, with respect to changes to the existing 2010 Basel III leverage ratio that were included in the Proposed Framework, the Associations recommend the following modifications, which are described in more detail in the remaining sections of this comment letter:

- In derivatives transactions, (1) recognize the exposure-reducing effect of cash collateral received where such collateral is subject to legally enforceable collateral agreements, and (2) extend the recognition of legally enforceable netting in the measure of potential future exposure (“PFE”);

\textsuperscript{18} For these same reasons, the Associations urge the Basel Liquidity Working Group assessing the interactions of the Basel III liquidity requirements with central bank policies and instruments to expand this analysis to include the interacting effect of the proposed leverage ratio.

\textsuperscript{19} See BCBS Margin Requirements Final Document.
• Consistent with the first recommended modification, recognize that cash collateral provided to a counterparty in a derivatives transaction reduces the cash assets of the collateral provider for purposes of the leverage ratio calculation—“grossing up” of these assets should not be required;

• For written credit derivatives, (1) recognize a broader range of offsetting hedges in calculating the additional notional amount for written credit derivative exposures, and (2) limit the exposure of a written credit derivative to the maximum loss amount;

• Measure SFTs in a manner that appropriately recognizes legally enforceable rights of setoff by adopting universal and conservative guidelines for netting SFTs with the same counterparty, as described in more detail below, thus providing a consistent measurement methodology regardless of differences in the applicable accounting frameworks; and

• Exclude a derivative trade cleared through a central counterparty (“CCP”) on behalf of a client (“client cleared transaction”), or alternatively, exclude the CCP leg of a client cleared transaction and appropriately recognize collateral and netting for the client leg of a client cleared transaction.

Equally important, the Associations believe the Committee should revisit and revise several aspects of the existing leverage ratio that was finalized in 2010—especially in light of the greatly expanded Exposure Measure now contemplated in the Proposed Framework. In particular, any Final Framework should:

• Exclude from the Exposure Measure cash claims on central banks;\(^\text{20}\)

• Exclude from the Exposure Measure all other very low risk assets qualifying as Level 1 HQLA, as well as SFTs secured by Level 1 HQLA;

• As an alternative to such full exclusions, at the very least apply partial exclusions or discounts to all Level 1 HQLA according to their relative levels of liquidity, similar to the categories of eligible assets under the LCR;

• Recalibrate the 100 percent CCF to recognize likely on-balance sheet conversion rates for different categories of off-balance sheet items based on a conservative assessment of historical experience, or in the alternative, based on the CCF exposure measures used in the Standardized Approach or the drawdown rates used in the LCR; and

• With respect to the proposed reporting of monthly leverage ratio calculations, (1) allow banks to calculate the numerator of the ratio based on quarter-end levels of tier 1 capital (with the denominator continuing to be counted on a monthly

\(^{20}\) “Cash claims on central banks” should include currency issued by central banks that banks hold as well.
basis), and (2) adopt a lengthier phase-in of the monthly denominator calculation for smaller banks and banks in jurisdictions that do not currently require monthly reporting.

The Associations also ask the Committee to clarify that the numerator of the leverage ratio (“the Capital Measure”) and Exposure Measure should be treated consistently for purposes of the leverage ratio, including non-controlling investments in the capital of commercial investees. To ensure consistency, both the numerator and the denominator of the leverage ratio should be calculated using the regulatory scope of accounting.

Apart from its specific proposed changes to the leverage ratio calculation, the Proposed Framework also asks a question about whether the Capital Measure should be changed to common equity tier 1 (“CET1”) capital rather than tier 1 capital. The Associations strongly believe that tier 1 capital, which absorbs unexpected losses on a going concern basis and was substantially strengthened in the changes made by Basel III, is the appropriate Capital Measure. Any final Basel III leverage ratio framework (“Final Framework”) should not deviate from this standard.

The Proposed Framework also raises the possibility of recalibrating the existing leverage ratio level of 3 percent in the first half of 2017. The Associations strongly believe that it would be premature to consider any such recalibration until two conditions are satisfied: (1) the definitions of the numerator and denominator of ratio are finalized; (2) a quantitative impact study (“QIS”) is conducted to assess the effects of those final definitions, including to determine the level at which the finalized leverage ratio, rather than the risk-based requirements, would become the binding capital measure for a material number of covered institutions, and to determine the expected macroeconomic consequences of such a binding leverage ratio in each significant product market in which banks are major participants. This study is particularly important given the high proportion of low-risk, low-return assets that serve the broader economy that could be impacted by the leverage ratio; thus, any final calibration of the leverage ratio should carefully assess any potential unintended consequences to avoid any recessionary impact. Such an assessment should also take full account of pending changes in both international and US accounting standards, which are likely to have a substantial effect on banks’ balance sheets. In addition, the final calibration should be subject to a robust consultation process.

Finally, the Committee should reinforce the longstanding principle that the risk-based requirements should be the binding measure and the leverage ratio the backstop measure for internationally active institutions subject to the Basel standards. In so doing, the Committee also should reaffirm the principle that national authorities should adopt capital standards, including leverage ratios, that are comparable internationally. In particular, national authorities should not unilaterally increase such ratios to such an extent that they become the generally binding capital requirement for a material number of firms, thereby eliminating the fundamental rationale for and benefits of internationally harmonized capital requirements based on risk.

After a brief summary of the Leverage Ratio Study, our more detailed comments on the Proposed Framework are set forth below.
II. The Leverage Ratio Study

After the Committee released the Proposed Framework in June 2013, GFMA and The Clearing House jointly commissioned a leading consulting firm to conduct the Study to assess the impact of the proposed Exposure Measure to the Basel III supplementary leverage ratio on banks and on relevant product markets. The Study analyzed over 80 percent of the banking institution assets in North America, Europe, and Asia, including 18 G-SIBs, which included data provided by member institutions as well as publicly available data.

For more than half of the institutions included in the analysis, the Study found that the supplementary leverage ratio, as modified by the Proposed Framework, would become the binding capital ratio rather than the “all in” Basel III risk-based capital requirements that include applicable buffers and surcharges. Moreover, as the leverage ratio increases from 3 percent to 5 percent, the leverage ratio would become the binding constraint for over 90 percent of the institutions included in the analysis.

The prospect of the Proposed Framework having a fundamental impact on banks’ decisions to engage in certain low-risk, low-return product markets is immediate and real. Indeed, when the leverage ratio is the binding constraint:

- Banks have an incentive to hold higher risk assets on their balance sheet to aid their capturing adequate return on higher levels of required capital;
- Banks are discouraged from maintaining higher levels of low-risk, low-yield liquid assets (above the minimum required amount) because doing so penalizes banks in the form of a higher leverage capital requirement;
- Banks’ higher level of capital will increase the cost of providing risk mitigation services to customers, reducing the ability of smaller regional banks to hedge their interest rate risk, and raising the cost of borrowing for corporate customers by driving up required yields on their debt financings;
- Banks are penalized for aiding central government stimulus programs that cause banks to take more government securities on their balance sheets; and
- Banks will be unable to capture necessary returns on low-return transactions such as repo transactions in government debt, thereby leading to less liquid government debt markets and potentially higher costs for government borrowing.

We have attached the Study as Appendix 4 to this comment letter.

III. Derivative Exposures

For the leverage ratio calculation, the Proposed Framework would measure a derivatives exposure by essentially applying the Current Exposure Method (“CEM”). Under the CEM, a derivative exposure is measured by calculating the replacement cost (“RC”) plus an add-
on for the potential future credit exposure over the remaining life of the contract, the PFE. As regulators and banks have recognized since it was developed in 1988, the CEM is a rudimentary, one-dimensional measurement method that has fundamental weaknesses. In particular, the CEM fails to distinguish between margined and unmargined transactions; only partially recognizes the exposure-reducing effects of offsetting positions, even where the transaction is subject to a legally enforceable netting agreement; and does not sufficiently capture the level of volatility that has been observed over recent stress periods. Further, the CEM fails to recognize other exposure-reducing measures such as collecting daily variation margin, applying haircuts to non-cash collateral, and diversifying the risk of a derivatives portfolio—all of which are well accepted risk management practices for limiting actual derivatives exposure. Appendix 2 to this letter demonstrates the significant, and potentially prohibitive, costs that banks will face if the CEM is used to measure derivatives exposures on a gross basis.

The Proposed Framework would also require banks to gross-up collateral received and provided, contrary to standard accounting norms and prudent risk management practices. Thus, grossing up cash collateral received and provided would be contrary to the Committee’s objective of capturing a simple standard “within the normal accounting or risk management systems of banks.”

Accordingly, the measure of derivatives exposures in the supplementary leverage ratio should at the very least be modified to remedy its most glaring deficiencies: the failure to reduce an exposure by the value of cash collateral, and the failure to fully recognize the offsetting effects of legally enforceable netting agreements in the measure of PFE. These and other deficiencies should be addressed by adopting the following changes:

- Recognize the exposure-reducing effect of cash collateral received in derivatives transactions, and in the PFE, fully recognize netting under legally enforceable netting agreements—either by amending the CEM or by permitting the use of the Non-internal Models Method (“NIMM”)—provided that the final version of NIMM also addresses the other concerns raised by the Associations and their members in their comments on the NIMM proposal;

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22 See Basel Committee on Banking Supervision, Consultative Document: The non-internal model method for capitalising counterparty credit risk exposures ¶ 6 (June 2013, rev. July 2013) [hereinafter the “BCBS NIMM Consultative Document”].


25 While the Associations believe that other types of low-risk collateral also reduce exposure and also should be recognized in the Exposure Measure, we believe that any Final Framework should at the very least recognize cash collateral.

26 The Associations and their member banks are still evaluating the effect of the NIMM. We plan to file letters responding to the specific questions and proposals in the NIMM Consultative Document.
• Consistent with the first recommended modification, where cash collateral provided to a counterparty in a derivatives transaction reduces the cash assets of the collateral provider for purposes of the leverage ratio calculation, “grossing up” of these assets should not be required;

• Recognize a broader range of hedges in the separate notional value calculation that the Proposed Framework applies only to written credit derivatives; and

• Limit the exposure of a written credit derivative to the maximum loss amount.

A. Recognize the Exposure-Reducing Effect of Cash Collateral Received

A derivatives contract generally requires a counterparty that has net derivatives exposure to a bank to post very high quality collateral—typically riskless cash—to reduce that exposure. Because such collateral plainly reduces the bank’s actual exposure to loss under the specific derivative contract giving rise to the exposure, the leverage ratio ought to recognize that reduction, especially where the collateral takes the form of riskless cash and is legally enforceable upon counterparty default. Instead, the approach used in the Proposed Framework is fundamentally inconsistent with this concept of measuring actual exposure (and reductions to such exposure). This inconsistency would produce an enormous asset for leverage ratio purposes for any bank that is substantially and prudently engaged in derivatives activities, thereby substantially and inappropriately inflating its required leverage capital.

Indeed, not only would the Exposure Measure overstate actual exposure by failing to recognize the offsetting cash collateral, but it could effectively double count that inflated exposure by including the value of the cash collateral as well. That is, a bank would be required to count both (1) the full value of its derivative exposure to a counterparty, with no offset for cash collateral received from that counterparty; and (2) the full value of any of that cash collateral received. Such double counting would plainly and inappropriately magnify the Exposure Measure even beyond the increase that would otherwise result from the failure to recognize the exposure-reducing effect of posted cash collateral. And this double counting would also cause a perverse risk-management incentive: banks would be encouraged to prefer the receipt of collateral in the form of securities rather than riskless cash because the value of such securities collateral received, as opposed to cash collateral received, would not be included in the Exposure Measure. While we support the concept of consistent treatment across accounting regimes for leverage ratio purposes, such a result would be contrary to fundamental risk management and safety and soundness principles.

Although the Proposed Framework acknowledges that collateral received reduces counterparty exposure, it cites additional concerns for its proposed non-recognition of derivatives collateral. First, it states that “[c]ollateral received in connection with derivative contracts does not reduce the economic leverage inherent in a bank’s derivatives position. In particular, the exposure arising from the contract underlying is not reduced.” Second, there


28 Id. at ¶ 27 (second emphasis added).
appear to be concerns about re-hypothecation or collateral reuse. Each of these concerns is addressed below.

1. **Reduction of Counterparty Credit Exposure**

Collateral received from counterparties reduces a bank’s counterparty credit exposure on derivatives contracts. In a typical transaction, the bank will receive initial margin at the start of the transaction and then will exchange daily variation margin with its counterparty throughout the trade to reflect market movements in the position. Where the bank is “in the money,” initial and variation margin received from the counterparty directly reduce counterparty credit exposure. If the counterparty defaults and the bank recovers nothing on the contract in a bankruptcy or similar proceeding, the bank will reduce its losses on the trade by applying the initial and variation margin previously collected. Collateral used to offset losses are governed by legally enforceable collateral agreements supported by legal opinions.

More generally, the proposed non-recognition of collateral received in connection with derivatives contracts is flatly inconsistent with the Committee’s stated goal of imposing initial and variation margin requirements on derivatives. The Committee recently recognized the exposure-reducing effects of collateral, explaining that margin requirements “would be expected to reduce contagion and spillover effects by ensuring that collateral is available to offset losses caused by the default of a derivatives counterparty.” Given that margin directly reduces counterparty credit exposure, it would be inconsistent to impose initial and variation margin requirements on derivatives transactions on the theory that collateral reduces exposures in one context, but then disregard such margin collected in the leverage ratio context on the theory that collateral does not reduce exposures.

2. **Addressing Exposure Arising from the Underlying Contract**

The Proposed Framework also reflects concerns that collateral received from counterparties does not reduce the “economic” leverage inherent in derivatives contracts. In this context, the bank may collect initial margin at the outset of the transaction and then exchange variation margin throughout the trade, but, the Proposed Framework suggests, margin collected will not reduce the bank’s exposure if the bank’s position becomes “out of the money” and the bank must later make payments based on market movements of the underlier. By way of illustration, if the bank received €100 of initial margin and €50 of variation margin at one point in the trade, but the market later moved against the bank’s position and the bank then owed €300 to the counterparty, the Proposed Framework assumes that the initial and variation margin collected would not protect the bank from adverse market movements and would not be available to the bank to meet part of the €300 margin amount.

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29 See id. at ¶ 26 (noting that “collateral received in connection with derivative contracts has two countervailing effects on leverage . . . it can also increase the economic resources at the disposal of the bank, as the bank can use the collateral to leverage itself . . .”).

The Associations appreciate the concerns about economic leverage, but we believe that the approach in the Proposed Framework suffers from several conceptual and technical flaws.

First, we understand that the Committee may have concerns with the general concept of recognizing collateral as reducing bank exposure. Although there may be instances where collateral does not fully reduce exposures, the exposure-reducing effects of cash collateral must be considered in light of the distinct characteristics of derivatives. Most fundamentally, a loan has definite exposure value that reduces over time as the bank receives payments of principal and interest from the borrower. A derivative, by contrast, fluctuates in value in response to changes in the value of the underlier and other market conditions.

Additionally, derivative exposures are different from loan exposures because variation margin is a form of pre-settlement payment rather than collateral against future losses. Where derivatives counterparties post daily variation margin to one another, each party will post or receive variation margin in response to market movements on the contract. On any particular day during the life of the contract, the current market value of the trade will be reflected in the variation margin exchanged between the counterparties as of that moment in time; variation margin is a way of making payments on the value of the trade before the final maturity date. By contrast, collateral serves a different role in the loan context as a credit risk mitigant against the borrower’s potential default. Accordingly, the receipt of cash collateral always reduces a bank’s exposure on a derivatives trade, regardless of whether that exposure is due to counterparty credit or movements in the underlier. This is so because cash margin collected increases the pool of resources available to a bank to meet future requirements on the trade, no matter whether those requirements arise from counterparty credit or market exposures. In the example above, if the bank owed €300 in variation margin to its counterparty based on market movements, the bank would return the €50 of previously collected variation margin and pay an additional €250 of variation margin to cover the balance of the market movements. Disregarding the €50 margin, as the Proposed Framework would require, ignores the fundamental principle that a bank may use previously collected variation margin to cover increasing exposures on a trade.

Initial margin for derivatives also serves a distinct economic function from loan collateral. Under the Basel Committee’s final margin rules, covered entities must each post initial margin to one another. But since only one party could ever be in-the-money on the derivatives contract and need to use initial margin to cover the default of its counterparty, where two-way margin is required there will always be a surplus of initial margin relative to default risk. By contrast, in a loan, only the lender collects collateral to protect against the credit risk of the borrower; if the borrower defaults, the entirety of the collateral may be applied against the bank’s loss. While initial margin does protect against credit risk, the leverage framework should recognize that two-way initial margin requirements will necessarily result in a surplus of collateral in the system relative to default risk and potential exposure.

Second, aside from these fundamental features of collateralized derivatives transactions, the Proposed Framework does not account for prudent risk management practices.

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31 We continue to believe that collateral has important exposure-reducing effects in the loan context.
Banks typically hedge exposures on a portfolio basis through collateral and offsetting positions. For instance, a bank may take the short position on an interest rate swap facing one counterparty and take the long position on an identical swap facing a second counterparty. In this example, the bank’s market exposure—what the Committee calls the economic leverage—is perfectly hedged, and the exposure is only counterparty exposure. While the Committee is correct that the collateral received does not, by itself, prevent adverse market movements on either one of the two trades, the bank has protected itself against market movements by taking offsetting positions. In this case, it would be illogical to disregard collateral received on the trade on the theory that the bank has residual economic leverage.

Third, the capital regime does not exist in isolation, and other elements of the regulatory regime address concerns about sharp movements in derivatives underliers. For example, the Market Risk Framework requires significant additional market risk capital requirements to address any build-up of leverage in the trading book. Similarly, other, more tailored regulatory measures decrease the risk that sharp movements in the underlying derivatives contract will cause severe losses. The LCR requires banks to assume variation margin payments under stressed conditions, which ensures that banks have a sufficient stock of HQLA to make future payments on their derivatives positions without compromising their capital bases. Additionally, the Committee’s recent Final Document on margin requirements for uncleared transactions requires the full amount of variation margin to be exchanged on a regular (e.g., daily) basis, which would ensure that any changes in economic exposure are fully covered. Daily payment of variation margin, coupled with LCR standards, would avoid future scenarios in which a major dealer has large uncollateralized, unrealized losses on its derivative positions without a sufficient collateral buffer to cover those losses. The Committee does not need to use the blunt approach of collateral non-recognition in the leverage ratio to solve for a problem that is appropriately addressed through a combination of much more tailored regulatory measures, including risk-based capital standards, the LCR, and daily variation margin requirements.

Fourth, the Committee has long accepted using the RC-plus-PFE approach to measure potential future changes in the market price of derivatives exposures, including in the Proposed Framework. While the Associations agree with the RC-plus-PFE concept generally (for example, in NIMM), we believe that it should be further refined to reflect collateral and netting because both measures increase or reduce a bank’s exposure in ways that are correlated much more directly to actual economic exposure. Neither CEM nor NIMM, for example, is appropriate for capturing market risks.

Fifth, non-recognition of collateral would be inconsistent with the rationale supporting the increased use of CCPs for derivatives, as discussed in section V below. Regulators have encouraged or mandated central clearing for derivatives to ensure consistent risk (and exposure) management across markets, with clearing members posting collateral to, and receiving collateral from, CCPs on their own behalf and on behalf of clients as market positions

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32 See Basel Committee on Banking Supervision, Revisions to the Basel II market risk framework (July 2009).

33 See BCBS Margin Requirements Final Document, at 9 (requirement 2.1).
change. The entire CCP framework is based on the fundamental premise that collateral transfers are the appropriate process for managing cleared derivatives exposures. Non-recognition of collateral in the leverage ratio framework is at odds with, and would frustrate, efforts to migrate derivatives transactions to CCPs.

3. Re-Hypothecation and Collateral Re-Use

The complete lack of recognition for collateral also appears to be driven by concerns arising from the re-use or re-hypothecation of collateral received in a derivatives transaction.34 While such concerns can be valid, the leverage ratio is a blunt, indirect, and inappropriate tool for addressing them, especially in light of the substantial negative consequences it generates. Instead, any such concerns should be addressed directly with much more targeted regulatory measures. Indeed, national and international regulators already have begun efforts to directly address these concerns. For example, the Committee’s Final Document on margin requirements for non-centrally-cleared derivative transactions restricts re-hypothecation or re-use of initial margin.35 The United States has significantly limited re-hypothecation by requiring most swap contracts to be cleared by central counterparties where the transactions are governed by strict collateral requirements, including a requirement that pledged collateral be held in a segregated account without the possibility of re-hypothecation.36

Further, where a bank permissibly re-uses or re-hypothecates collateral to fund the acquisition of assets, it would be required to include those assets in the Exposure Measure. Thus, the bank would be compelled to hold additional capital to account for the enlarged denominator resulting from those assets to meet the leverage ratio requirement. Stringent haircut requirements for non-cash collateral—both as required by the market and by regulatory risk-based capital requirements—also reduce the incentive for banks to re-use or re-hypothecate collateral. That is, a non-cash asset is subject to a haircut, or discount, that reduces its value when it is provided as collateral; that asset is subject to additional haircuts that further reduce its value each time a bank re-uses or re-hypothecates the asset in another transaction.

In short, concerns about collateral re-use and re-hypothecation can and are being addressed by targeted regulatory measures. To the extent concerns remain, additional targeted measures would be appropriate. What is not appropriate or effective for addressing these

concerns is failing to recognize the plainly exposure-reducing effect of cash collateral for leverage ratio purposes.

*          *          *

Accordingly, the Associations request that the Final Framework recognize the exposure-reducing effect of cash collateral. This recommended approach would reflect the actual economic exposure of derivative contracts much better than the approach in the Proposed Framework. It would also provide a powerful and appropriate incentive to collateralize transactions with riskless cash, rather than create an inappropriate incentive to use less cash collateral or riskier forms of collateral.

B. Fully Recognize Netting under the PFE Measure

The PFE measure under the CEM in the Proposed Framework significantly limits the degree to which netting benefits are taken into account in determining exposure—even though an offsetting position under a legally enforceable netting agreement directly reduces exposure to a counterparty. For example, two trades that exactly offset exposures and that are subject to a legally enforceable netting agreement at default clearly should not be deemed to create counterparty credit exposure. Indeed, the use of offsetting positions is a widely accepted “best practice” for prudently reducing or fully offsetting exposure to a derivatives contract. There is no sound reason for only partially recognizing the risk-reducing effect of netted positions for purposes of the PFE calculation in the context of the leverage ratio calculation—full recognition should apply.

C. Do Not Require “Gross-up” of Collateral Provided

The Proposed Framework requires banks to gross-up cash collateral provided or paid to a counterparty to the extent that the provision of such collateral had otherwise caused a reduction in on-balance sheet assets under the bank’s operative accounting framework. In so doing the Committee recognized that such a reduction for collateral paid would otherwise occur under certain accounting rules. The Proposed Framework states that the gross-up “is necessary to ensure a consistent policy treatment for reporting under US GAAP and IFRS.”

The need to ensure an internationally harmonized standard is clearly an important goal. But there is no sound practical or policy reason to adopt the proposed gross-up approach for cash collateral provided as the only way to achieve that goal. Cash collateral paid reduces the economic resources at the disposal of the bank: once paid it cannot be used to further leverage the bank, and it can only be called back if the value of the underlying derivative contract turns in the bank’s favor. Further, requiring banks to gross-up cash collateral paid could effectively triple count the amount of capital required for the same derivatives transaction: first, the Exposure Measure for the collateral provider would include the full value of cash collateral

37 See, e.g., id. at ¶ 28, n. 15.
38 Id.
provided, even though that cash is no longer at the bank’s disposal and would otherwise leave its balance sheet; second, the Exposure Measure for the collateral receiver would include the full value of the derivative exposure that otherwise would be offset by the value of the cash collateral received; and third, the Exposure Measure of the collateral receiver would also include the value of cash collateral received.

In sum, consistent with the previous recommendation that collateral received should be recognized as reducing a bank’s derivatives exposure for purposes of calculating the leverage ratio, any Final Framework should adopt a different internationally harmonized standard that allows collateral paid in a derivatives transaction to reduce the assets of the collateral provider for that same purpose.

D. Approaches for Implementing Recommended Modifications: Amended CEM or Amended NIMM

One approach for implementing the recommendations described above, especially for the treatment of collateral received and netting, would be to make targeted changes to the CEM to achieve those objectives. However, given the many deficiencies of the CEM, the Final Framework could better achieve these objectives by permitting the use of an appropriately crafted NIMM.

To address these and other “known deficiencies” of the CEM, the Committee has proposed NIMM as a new non-internal models method for measuring derivatives exposures. The NIMM is intended to be calibrated to stress periods, recognize the benefit of collateral, better reflect legal netting agreements, and “improve[] significantly the risk sensitivity of the capital framework.” The NIMM also is intended to be suitable for a wide variety of derivatives transactions in order to consistently measure all derivatives.

The Associations support these objectives, although we are currently evaluating the effects of the NIMM as proposed and have significant concerns regarding some of its features. We believe that an appropriately crafted final a version of the NIMM should be used in place of the CEM to measure derivatives exposures in the leverage ratio context—provided that the finalized NIMM would, at the very least, fully recognize the exposure-reducing effects of riskless cash collateral; fully recognize all offsetting exposures under legally enforceable netting agreements; and take into account comments by the Associations and various member banks on the separate NIMM consultative document.

39 BCBS NIMM Consultative Document, at ¶ 12.
40 Id. at ¶¶ 11-12.
41 Id. at ¶ 12.
42 However, we note that neither CEM nor NIMM is an accurate or reliable way to measure derivatives transactions because the PFE does not appropriately capture the off-balance sheet market risk component. Instead, risk weights or models would more appropriately translate this off-balance sheet risk into an on-balance sheet asset.
E. Written Credit Derivative Exposures

The Proposed Framework would treat written credit derivatives differently from other derivatives, even though the underlying exposures and risks are similar. In addition to applying the CEM measurement of exposure, not allowing offsets for collateral received, and grossing up the collateral paid, the Proposed Framework would require banks to add the full effective notional amount referenced by a written credit derivative into the Exposure Measure. Moreover, that effective notional amount could only be reduced by a hedging position in very limited circumstances, that is, where the purchased credit derivative is on the same reference name, has the same level of seniority, and has a remaining maturity that is equal to or greater than the remaining maturity of the written credit derivative. Together, these requirements would result in exposure amounts that are even greater than 100 percent of the notional amount.

The Associations understand that the Proposed Framework’s treatment of written credit derivatives may be based on a belief that such derivatives are equivalent to guarantees in the banking book; under this line of thinking, the equivalent of a 100 percent CCF should apply to the written credit derivatives’ notional values, similar to the treatment of guarantees. Written credit derivatives differ from guarantees, however, in two key respects. First, and most fundamentally, there is a liquid market in credit derivatives that permits a bank to buy and sell new positions in response to market events, which is not the case with guarantees. Second, unlike guarantees, exposures on written credit derivatives can be managed in numerous ways, such as taking a short position on an index or basket of securities or purchasing other assets whose value correlates to the value of the credit derivative underlier. Although not all of these hedges may be recognized as exposure-reducing for purposes of the leverage regime, they permit the bank to manage its exposure dynamically in response to changing market conditions. The same is not true for guarantees, as banks have limited ability to offset guarantee risk.

Indeed, the Committee previously considered and rejected a proposal to treat credit derivatives differently from other derivatives: while the Basel III leverage ratio proposed in 2009 raised the prospect of a notional add-on for written credit derivatives, that part of the proposal was abandoned in the final standard adopted in 2010, with credit derivatives then treated the same as all other types of derivatives. Nevertheless, in the Proposed Framework, the Committee evidently decided to revive the earlier proposal for a notional add-on. While the Associations believe that the Committee correctly decided in 2010 not to require the 100 percent notional add-on, the comments below on the written CDS part of the Proposed Framework focus on two recommendations to adjust the differential treatment now proposed for such derivatives. Specifically, the Associations request that any Final Framework (1) cap the exposure of a written credit derivative at its maximum loss amount, and (2) recognize a broader range of hedges in the notional add-on.

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44 Id.
1.  **Cap the Exposure Amount at the Maximum Loss Amount**

The Associations are also concerned that a written credit derivative will typically be included in the Exposure Measure at more than 100 percent of its notional value due to the combination of the proposal to include 100 percent of the notional value of a written credit derivative with the proposal to gross-up the balance sheet for cash collateral posted. For example, if a written credit derivative has a notional value of $100 and the value of the underlying bond falls to $80, the bank would record a loss of $20 (i.e., reduce capital, the numerator, by $20), and typically the bank would be required to post $20 of cash collateral to the counterparty. The Exposure Measure as proposed would require a total of $120 to be included, comprising the $100 notional plus the $20 of cash collateral posted—$40 more than the maximum remaining loss that the bank could suffer on the trade (since capital could only be diminished by a further $80).

The Committee notes that the purpose of the proposal to require 100 percent of the notional value for written credit derivatives is to treat them “consistently with cash instruments (e.g., loans, bonds) for the purposes of the Exposure Measure” yet in this example, if the bank held the bond directly it would have to include $80 in the Exposure Measure (i.e., the market value of the bond) compared to the $120 on the written credit derivative. There is no reason for this inconsistency because there is no additional leverage in the credit derivative compared to the bond. The further the bond falls in value, the bigger the difference between the exposure amount for the bond versus a written credit derivative referencing that bond. For example, if the value of the bond falls to $30, only $30 would be included in the Exposure Measure; but if the underlying value of a written credit derivative falls to $30, then $170 would be included in the Exposure Measure ($100 notional plus $70 cash collateral posted).

The Associations firmly believe that the measure of written credit derivative exposures should be capped based on the maximum possible loss (effectively the value of the underlying bond).

2.  **Recognize a Broader Range of Hedges**

The Proposed Framework does not reflect the actual economic exposure of written credit derivatives, especially because the recognized hedging activities are defined so narrowly. Credit protection positions are typically hedged with purchased credit protection; thus, failure to recognize appropriate exposure-reducing hedge techniques that are not same name, same seniority, or same or longer maturity would substantially overstate actual exposure.

While the Associations recognize that certain hedges do not provide adequate protection to merit recognition, we also believe there is a prudent middle ground between taking the excessively narrow approach in the Proposed Framework and recognizing all derivatives hedges as exposure-reducing. For example, a purchased contract with a residual maturity of fewer than three months covering a contract to provide credit protection for five years might not

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reduce the exposure of the written credit derivative. By contrast, it does not make sense to include the full notional value of a 5-year contract if the first 4 1/2 years of that contract are fully hedged. Such an approach conflicts with prudent risk management principles and with existing capital treatment for trading book exposures; fails to consider economic delivery of hedged positions; fails to recognize the significant liquidity of many trading book positions; and creates severe practical difficulties for banks attempting to hedge positions.

To recognize these and other sound risk management techniques, any Final Framework should measure at most only the current net notional amount on each reference entity on which the bank has net sold credit protection. Although this approach would overstate actual exposure because it does not take into account other purchased credit protection, it would at least take into account legally and contractually binding netting sets acknowledged and employed by the Committee for purposes of counterparty netting.47 That is, when an underlying entity defaults, all contracts referencing that entity trigger, regardless of tenor, and all settle at the level set in the auction. Therefore, we strongly believe that the Committee should allow for full netting of these exposures consistent with the contractual legal agreements that govern these documents just as it has done with counterparty netting arrangements.

Any Final Framework also should include the following types of hedge positions in addition to same name, same seniority, and same or longer maturity hedges:

- **Maturity:** Consistent with Basel II, a credit derivative purchased protection should be recognized as offsetting a written credit derivative exposure where the credit derivative purchased protection has a shorter maturity than the written credit derivative, but only if the original maturity of the credit derivative purchased protection is at least one year and the residual maturity of the purchased protection is at least three months.48 This approach would conservatively recognize only those hedges that the Committee has already deemed to be of sufficient maturity to effectively hedge derivatives positions in a similar regulatory capital context.49

- **Alternative Proportional Approach:** As an alternative to the Basel II approach, for a single reference entity, the Final Framework should adopt a proportional approach. Under this approach, the bank would first fully net all trades with identical maturities for a reference entity. Then, the bank would take the sum of the maturity-weighted notional at each maturity divided by the sum of the maturity-weighted gross written protection. The resulting ratio would be the proportion of the notional

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47 See, e.g., Basel II, at ¶188.
48 See id. at ¶¶ 143, 204.
49 We note and support the Committee’s efforts in compiling impact data based on this expanded definition of qualifying purchased protection as part of the Basel III monitoring exercise. See Basel Committee on Banking Supervision, Instructions for Basel III Monitoring 38 (August 2013) (method 1).
amount that should be included in the add-on.\textsuperscript{50} Appendix 3 provides an example to illustrate the proportional approach.

- **Subordinate Protection to Hedge Senior Protection**: A credit derivative purchased protection referencing a subordinated position should be recognized as an effective hedge to a written credit derivative referencing a more senior position. By referencing a more junior position, the purchased protection will be triggered at the same time as the sold protection. Further, the purchased protection on a more junior position is expected to have a higher payout than the sold credit protection referencing a senior position because the recovery on the more junior debt will be lower than the recovery on the more senior debt of the underlying name. Thus, if a bank purchases credit protection on a junior position to hedge a written CDS on senior position, the bank has no economic exposure from both a timing and a recovery standpoint. In fact, Basel II recognizes written credit protection exposure offset for purchased credit protection if “the reference obligation ranks pari passu with or is junior to the underlying obligation.”\textsuperscript{51}

- **Subordinated Tranches to Offset Senior Tranches**: Likewise, protection purchased on a subset of a pool should be permitted to hedge more senior protection sold on the same pool on a one-for-one or notional-for-notional basis. For example, protection purchased on a 3-6 tranche should be permitted to hedge protection sold on a 7-11 tranche of the same index, provided that both underlying pools are identical and that the purchased protection is more subordinated (takes losses at the same point or earlier, and is fully wiped out at the same point or earlier than the sold protection tranche). In this case, the subordinated tranche “dominates” the senior tranche for any number of defaults from the underlying pool of reference names; as a result, the bought protection always pays out more than the sold protection loses.

- **Netting Indices**: The underlying constituents of an index should be allowed to offset the effective notional amount of written credit protection on single names. That is, a linear (non-tranched) purchased index can be decomposed into its underlying names and allowed to offset written credit derivatives on those same names, even if only partial. This approach would be consistent with and reflect actual settlement practice under legally binding agreements and actual economic exposure. Where an underlying reference entity defaults, the bank is required to pull the defaulting entity from the index and treat that exposure the same as other credit protection that it has sold or purchased outside the index. This hedge recognition should be explicitly recognized in the Exposure Measure, including both where names within an index hedge written credit protection on single-

\textsuperscript{50} We note the Committee is also gathering data on this alternative approach. Given the underlying premise of the Basel Framework is to ensure capital adequacy over the forthcoming year, we would support Method 1 over Method 2 in the Committee’s Basel III QIS. See id. (method 2).

\textsuperscript{51} See Basel II, at ¶191(g).
Netting Credit Protection versus Cash Exposures: The Exposure Measure should recognize purchased credit protection (CDS and total return swaps “TRS”) as offsetting the notional credit exposure arising from the creditworthiness of the same reference entity as the written credit protection. The Proposed Framework assumes that written credit protection is different from all other derivatives because it creates “a notional credit exposure arising from the creditworthiness of the reference entity.”

Consistent with this interpretation, any Final Framework similarly should recognize that purchased credit protection offsets notional credit exposure on the same reference entity. If the reference entity defaults, bonds and loans issued or guaranteed by the reference entity, and that are not subordinated to the written credit protection, are delivered to the written CDS. These bonds and loans are part of a contractually binding netting agreement; thus, they should be offset by credit protection purchased on the same reference entity as the issuer or guarantor of the bonds at the same or more subordinated position.

For all these reasons, the proposal should be modified to recognize a broader range of hedges to reduce the notional add-on for such derivatives. While the Associations recognize that recognition of these types of hedges may introduce some complexity into the leverage ratio framework, we recognize, as the Committee does, that “some complexity within the regulatory framework is inevitable, as banks’ business models cannot be simplified beyond a certain point.”

IV. Securities Financing Transaction Exposures

For purposes of calculating the denominator of the leverage ratio, the Proposed Framework would apply new and substantially different methodologies to measure SFT exposures. In this context, SFTs include repos, reverse repos, security lending and borrowing, and margin lending transactions, where the value of the transactions depend on market valuations and the transactions are often subject to margin agreements.

The most dramatic change in the Proposed Framework for SFTs is the gross, rather than net by counterparty, measurement of SFT assets—even where the assets are subject to a legally enforceable netting agreement. Although the Associations understand the Committee’s concerns about capturing the gross measure of exposure, we believe that such concerns would be better addressed through financial or industry reporting, not the leverage ratio. More important, although the proposed new treatment would certainly achieve one of the Committee’s stated goals—to adopt a standard for SFTs that would apply uniformly in all

52 Proposed Framework, at ¶ 30.
53 BCBS Simplicity Discussion Paper, at ¶ 32.
54 Proposed Framework, at ¶ 34 n. 19.
jurisdictions—it would do so at the expense of substantially overstating banks’ actual exposure amounts and would provide disincentives for netting. Together with other aspects of a binding or near-binding leverage ratio, the gross SFT measure will potentially cause serious problems in important financial markets for low-risk, low-return assets, such as sovereign debt. A net by counterparty measure would better reflect actual exposure to loss and would be far less likely to cause negative market consequences.

As described below, the Associations strongly support a different uniform measurement standard that appropriately considers a bank’s legally enforceable rights of setoff. In particular, legally enforceable netting arrangements should be respected to ensure a harmonized outcome for all banks and eliminate any uncertainty associated with perceived differences in accounting standards across jurisdictions. This could be accomplished by adopting universal guidelines for netting SFTs with the same counterparty, thus providing a consistent measurement methodology that does not rely on various accounting frameworks. Specifically, SFTs with the same counterparty should be recognized net if the transactions have the same explicit maturity; the right to set off is legally enforceable at a credit event; and the counterparties intend to settle net, settle simultaneously, or are subject to a settlement mechanism that results in the functional equivalent of net settlement. The class of SFTs that meet these conservative, consistent, and uniform netting standards will be limited, for the most part, to repos and reverse repos. The net measure in these cases better reflects actual exposure to loss and would be far less likely to cause severe market consequences.

Retention of the gross measurement standard by the Committee would be a serious error that would impede the achievement of other goals for addressing systemic risks. Further, the Associations strongly believe that such damage would be reduced but not eliminated were the counterparty credit risk add-on removed to avoid an SFT exposure that is greater than the maximum loss a bank could sustain.

A. Gross Measure Substantially Overstates Actual Exposure

Securities financing transactions, such as repos, play an “essential role” in the “functioning and efficiency of the financial system.”\footnote{Id. at ¶ 35 nn. 20 & 21.} Repo markets are “crucial for the trading of fixed-income securities and equities,” “especially important for allowing arbitrage in the Treasury, agency, and agency mortgage-backed securities markets,” and “play key roles in allowing shorting” in fixed-income and equity markets.\footnote{Tobias Adrian et al., Federal Reserve Bank of New York Staff Reports, \textit{ Repo and Securities Lending} 1 (December 2011, rev. February 2013).} Given the importance of SFT markets, the Associations believe it is critical that the Exposure Measure does not overstate actual SFT exposure amounts and provide disincentives to participate in SFT markets.

The gross measure of SFT assets is inappropriate because it fails to recognize the exposure reduction employed in this market when transacting with the same counterparty subject

\footnote{Id. at ¶ 35 nn. 20 & 21.}

\footnote{Tobias Adrian et al., Federal Reserve Bank of New York Staff Reports, \textit{ Repo and Securities Lending} 1 (December 2011, rev. February 2013).}

\footnote{Id.}
to a legally enforceable netting agreement. The Proposed Framework adopts this treatment even though the two major accounting regimes, International Financial Reporting Standards (“IFRS”) and US Generally Accepted Accounting Principles (“GAAP”), both recognize to varying degrees that such netting legitimately reduces actual economic exposure. Indeed, given recent clarifying interpretations under IFRS described below, there are few practical differences between the two accounting regimes’ treatment of netting SFTs; both recognize that netting under legally enforceable netting agreements reduces actual economic exposure when SFTs effectively settle net.

An example illustrates the significant overstatement of a bank’s actual exposure to an SFT transaction under the Proposed Framework. First, in a standard SFT, the lender requires the borrower to over-collateralize the transaction. Thus, assume a bank enters into a reverse repo with a counterparty in which the bank lends $100 in cash and receives $104 in securities. Assume the bank also enters into a repo with the same term and same counterparty in which the bank borrows $50 in cash and provides $52 in securities. Further assume that these transactions are subject to a legally enforceable netting agreement and will settle net or settle through a securities settlement system that results in the functional equivalent of net settlement. Under the Proposed Framework, the bank would be required to include the $100 gross “SFT assets” for the reverse repo and would not receive any exposure-reducing benefit for the partially offsetting repo transaction. In contrast, the bank would only be subject to a $50 net economic exposure due to its set-off rights and settlement mechanism. Thus, the $100 gross exposure amount doubles the actual economic exposure in this example.

A net by counterparty measurement is far more appropriate for measuring actual exposure. Where a firm has offsetting SFTs with the same counterparty and maturity and those transactions are subject to a legally enforceable netting agreement and effectively settle net, there is no exposure because the reciprocal positions “cancel out.” Indeed, netting is allowed under these legal, economic, and accounting principles only where credit risk as well as cash flow risk has been eliminated.

Further, prudent supervision demands that leverage ratio exposure measurements reflect legal and economic realities; an exposure measurement that crudely under- or over-reports exposures is an unreliable approach to setting regulatory capital requirements. As such, the Basel Committee recognizes netting benefits elsewhere in the Proposed Framework, such as for on-balance sheet derivative assets and liabilities. It would be conceptually inconsistent with other principles of exposure measurement in the Proposed Framework—and with the underlying goal of actually identifying an accurate measurement of a firm’s SFT exposures—to disregard netting arrangements that are applied to all internationally active banks.

59 See id.
60 See Antonio Corbi, Netting and Offsetting: Reporting derivatives under U.S. GAAP and under IFRS 10 (ISDA, May 2012).
Recognizing netting under conservative and rigorous netting standards—as detailed in the next section of this letter—would also meet one of the Committee’s objectives for “the capital adequacy framework . . . [to] promote improved risk measurement and management within banks”;\(^6\) it is hard to see how a gross measure would do this. Based on this and consistent with regulatory objectives to encourage such safe business practices, it is appropriate to recognize such netting in the determination of the exposure amount for leverage purposes.

B. Recognize SFT Netting Where Rigorous Regulatory Netting Criteria Are Satisfied

The Proposed Framework measures SFTs on a gross basis, with no recognition of netting, based on the rationale that “this regulatory treatment is prudent and has the additional benefit of avoiding inconsistencies from netting which may arise across different accounting regimes.”\(^6\) We note that the two major accounting regimes, IFRS and US GAAP, do not significantly diverge on the balance sheet presentation of SFTs when considering the International Accounting Standards Board’s amendments to clarify that the use of some securities settlement systems may be considered equivalent to net settlement.\(^6\) We do agree, however, that SFTs should be measured using a conservative and consistent standard across jurisdictions. In this connection, the Associations believe that the two cited reasons for the proposed treatment of SFTs—prudence and consistency—would be better advanced by adopting universal guidelines for netting SFTs with the same counterparty, thus providing a conservative and consistent measurement methodology that does not rely on potentially differing accounting frameworks. This approach would solve the problem of inconsistent outcomes driven by perceived inconsistent accounting frameworks while ensuring that the measurement of SFT exposures appropriately recognizes legally enforceable netting arrangements.

Accordingly, SFTs with the same counterparty should be measured net if all the following criteria are met:

1. Transactions have the same explicit maturity;
2. The right to set off the amount owed to the counterparty with the amount owed by the counterparty is legally enforceable upon a credit event; and
3. The counterparties intend to settle net, settle simultaneously, or the transactions are subject to a settlement mechanism that results in the functional equivalent of net settlement.

Regarding the third criterion, many securities transfer systems are structured so that the record of ownership is transferred and the associated cash payment is made based on the

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\(^6\) BCBS Simplicity Discussion Paper, at ¶ 29.

\(^6\) Proposed Framework, at ¶ 35(i) & n. 20.

gross amount of each transaction on a delivery-versus-payment basis. Currently, most systems are equipped to settle transactions in different securities separately; that is, only on an individual basis at gross amounts. Offsetting securities transactions cannot be settled simultaneously. However, major clearing systems maintain features to mitigate intra-day credit and liquidity risk (e.g., via daylight overdraft credit provided by a clearing bank). Use of these settlement systems is the functional equivalent of simultaneous or net settlement because the constraints of settlement that require a same-day transfer of the gross amounts do not have a gross economic effect on the parties, since only net amounts are required to be available if daylight overdraft or other intraday credit privileges are present.64

The above criteria—common to both major accounting frameworks—provide a common, consistent regulatory standard for ensuring that the measurement of SFT positions appropriately considers a bank’s legally enforceable right to set-off. Thus, the Association’s recommended changes to the Proposed Framework broadly align with IFRS and US GAAP netting guidelines for SFTs.

Finally, development of netting criteria within the Proposed Framework, which considers accounting requirements but does not specifically reference them, has the added benefit of providing a stable basis to move forward without impact from potential amendment to one or both major account frameworks in the future. The netting principles of the Proposed Framework could remain without impact and could therefore ensure consistency of treatment of SFTs for all entities, regardless of future differences in treatment in different accounting frameworks.

Although we strongly support and prefer the adoption of a set of uniform netting standards that are consistent across jurisdictions and accounting standards, should the Committee decide not to adopt the Associations’ proposed criteria for recognizing SFT netting, we believe it should consider retaining the current accounting measure of exposure for SFTs rather than adopting the gross measure of SFTs. While the exact technical standards for SFT netting recognition differ somewhat under US GAAP and IFRS, the substantive standards in each case rely on rigorous and comparable enforceability and operational requirements. Indeed, the accounting rules in this area are some of the most operationally specific rules in the accounting literature, ensuring that effective net settlement is achieved for these transactions on standard settlement platforms with prescribed settlement requirements. Both accounting and regulatory legal due diligence requirements ensure that these arrangements have been analyzed thoroughly for legal enforceability before any netting is allowed. And both regimes provide a much more accurate measure of SFT exposure than an approach that disregards netting outright. Certainly, either a US GAAP or IFRS measure of SFT exposures will be a much more accurate measure of exposure than an approach that disregards netting outright. In addition, we note that US GAAP

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64 Repos and reverse repos are typically executed between two counterparties and settled through a central settlement system (“CSS”). Many widely used CSSs, such as the Fixed Income Clearing Corporation (“FICC”), settle repos and reverse repos with the same maturity date on a delivery versus payment and receive versus payment basis in batches throughout the day due to the significant levels of transactions. The CSS typically calls for only one net payment per day from the clearing member for all settlements occurring on that day, utilizing a daylight overdraft feature or other intraday credit facility to fund the settlements.
and IFRS standards have moved closer to one another in recent years and that, at least in the case of SFT exposure measurements, there is little substantive difference between the two accounting regimes.

C. Remove the Counterparty Credit Risk Add-on

Should the Final Framework continue to require banks to calculate SFT exposures using the gross approach, then the replacement cost add-on should be eliminated. In this connection, the Proposed Framework could result in a greater than 100 percent exposure for an SFT, depending on the circumstances. The example discussed above in section IV.A. can be used to illustrate this point, where (1) a bank enters into a reverse repo with a counterparty in which the bank lends $100 in cash and receives $104 in securities, and (2) the same bank also enters into a repo with the same term and same counterparty in which the bank borrows $50 in cash and provides $52 in securities.

As described above, under the Proposed Framework, the bank’s Exposure Measure would include $100 of the bank’s gross “SFT assets” (the reverse repo exposure) that would not be netted with the $50 repo exposure. In addition, under the calculation formula used in the Proposed Framework to calculate the replacement cost for transactions covered by a master netting agreement (“MNA”), there would be no add-on: the total value of cash and securities lent to the counterparty, $152, less the total value of cash and securities received from that counterparty under the MNA, $154, is less than zero; therefore no add-on applies.

If instead, however, the bank enters into the same reverse repo transaction of lending $100 based and receiving $104 in securities, but in the repo transaction increases the securities collateral it provides to $60 in order to borrow the $50, the result is different: the total value of the cash and securities lent to the counterparty would increase to $160, while the total value of the cash and securities received would remain $154; as a result, the bank would have a $6 add-on ($160 less $154). The Exposure Measure for the bank would thus be increased by $106: $100 for the gross SFT assets due to no recognition of netting, plus $6 for the add-on.

This $106 exposure amount is greater than the maximum loss the bank could suffer ($50 of net economic exposure resulting from $100 reverse repo and $50 repo, which is also mitigated by the net collateral underlying both transactions). Moreover, the bank either (1) carries the $60 securities on its balance sheet, which would have been captured in the Exposure Measure, the incremental $6 (essentially a portion of the $60 already on-balance sheet) would constitute double counting, or (2) borrows the securities through a securities lending or reverse repo transaction in which the gross amount would have been captured and adding the $6 on top of that would again be a double count.

In sum, this overstatement, to the extent it would increase the likelihood of a binding leverage ratio, would provide a very real incentive for banks to reduce their positions in SFT markets. As SFT markets are critical for trading government securities and other fixed-income securities and equities, enhancing price discovery, and improving market liquidity, and banks are currently the major liquidity providers to SFT markets, a reduced willingness of banks to engage in low-risk SFTs would have negative consequences for government and low-risk corporate borrowers and debt holders.
As discussed above, a net by counterparty measurement is far more appropriate than “gross SFT assets.” Should the final framework retain the “gross approach,” however, we believe that the SFT counterparty risk add-on should be eliminated: the net counterparty exposure measures the excess of the bank’s exposure over the bank’s collateral and is intended to capture the risk of the bank losing securities or cash provided to the counterparty.

V. Centrally Cleared Transactions

The Associations strongly support the Committee’s goal to ensure that banks’ exposures to central counterparties are adequately capitalized “while also—in support of the G20 mandate to clear centrally all standardized over the counter derivatives—preserving incentives for central clearing.”\(^{65}\) The Proposed Framework could significantly undercut these goals by imposing higher capital requirements on derivatives cleared on behalf of clients through CCPs than on bilateral, uncleared derivatives. Accordingly, the Proposed Framework should be modified to (1) exclude a derivative trade cleared through a CCP on behalf of a client (a “client cleared transaction”), or (2) alternatively, exclude the CCP leg of a client cleared transaction, and appropriately recognize collateral offsets and netting for the client leg of a client cleared transaction.\(^ {66}\)

A. Client Clearing

The Proposed Framework should not penalize client cleared transactions given the G20 mandate to centrally clear all OTC derivatives, the more general regulatory push toward central clearing, and the safety and soundness benefits of such clearing.\(^ {67}\) As the Committee and national regulators have recognized, CCPs can mitigate systemic risk by, among other things, standardizing the contract terms of derivatives, conducting surveillance of clearing member credit, imposing stringent margin requirements that are based on industry and regulator accepted risk assessment standards, netting contracts on a multilateral basis, and employing a default management system that requires clearing members to contribute to a default fund that distributes and disperses the loss from counterparty default.\(^ {68}\) CCPs and clearing members are also subject to strict regulatory oversight, including restrictions on the use of client collateral, minimum capital requirements for clearing members, and the requirement for a robust risk

\(^{65}\) See Basel Committee on Banking Supervision, Consultative Document: Capital treatment of bank exposures to central counterparties ¶ 3 (June 2013, rev. July 2013) [hereinafter “BCBS Central Counterparties Consultative Document”].

\(^{66}\) To be clear, the Associations recognize that a house trade, where a clearing member bank trades on its own behalf as principal, would be included in the Exposure Measure. Likewise, the CCP leg of a client cleared transaction would be included in the Exposure Measure if the clearing member bank guarantees the performance of the CCP to the client.


management system. In short, clearing derivatives through CCPs have all the collateral and netting benefits discussed above for bilateral trades plus many more benefits that can decrease overall risk in the system.

However, becoming a member of a CCP can be an expensive process; client clearing allows end-users to access CCPs through clearing member banks. As clearing members, banks facilitate central clearing by acting as intermediaries between customers, the end-users, and CCPs. This process promotes liquidity, reduces the costs of central clearing to clients, and reduces the risk to CCPs. To the extent the costs of clearing increase for clearing member banks, such banks would be compelled to pass those costs on to their customers to make client clearing economically viable.

When a clearing member bank accepts a client’s derivative for clearing, it is acting as an intermediary between the client and the CCP. A client cleared transaction essentially has two offsetting legs. The first leg is the “client leg,” where the clearing member bank intermediates a trade on behalf of the client with the CCP. The second leg is the “CCP leg,” where the clearing member bank intermediates the trade between the CCP with the client. These are two, back-to-back, identical trades in the principal model, and one trade in an agency model (between the client and the CCP with the bank acting as agent). In both models, the clearing member bank functions as an intermediary between the client and the CCP.

To mitigate its exposure to the client, a clearing member bank collects initial margin in the form of cash or highly liquid securities and variation margin in the form of cash on at least a daily basis. Upon counterparty default, a clearing member bank may use the initial margin to offset its losses on the transaction. In addition, a clearing member also may use the client’s initial margin to cover any losses that arise from the liquidation of the client’s position. Further, a client’s legal agreement in a CCP-cleared trade generally does not have a grace period, which means that the clearing member can close out or liquidate the client’s position immediately upon default.

B. **Exclude Client Cleared Transactions**

Although the Associations recognize the need to capture banks’ exposures to derivatives transactions, we also believe it is critical that the leverage ratio does not penalize centrally cleared transactions, which would be at cross purposes with the G20 clearing mandate currently in force or being implemented in Basel-member jurisdictions. We thus believe that client cleared transactions, which are critical to the centrally cleared derivatives market, should be excluded from the Exposure Measure.

First, the exposure to the underlying contract—what we understand to be market risk—in a client cleared transaction is the client’s market risk. The clearing member bank acts in an intermediary capacity and is not exposed to such market risk of the client’s derivative position. The client is engaged in a trade with the CCP with the client’s own money, and the client is exposed to the underlying position.

Second, although the clearing member bank is exposed to the client counterparty—what we understand to be counterparty client risk—that exposure is substantially
reduced through initial margin that is collected on each position (that is, from both sides) and variation margin that is marked-to-market on a daily or twice-daily basis. Variation margin moves with the price of the underlier, is paid by both sides of the transaction in riskless cash, and can be used to cover increasing exposures to a trade. Indeed, the Committee recognized that “collateral received in connection with derivative contracts . . . reduces counterparty exposure.”

The proposed measurement methodology, the CEM, would fail to account for these exposure-reducing effects of initial and variation margin. It also fails to distinguish between margined and unmargined loans, which would be especially detrimental in the case of client cleared transactions. This measurement methodology is not appropriate for centrally cleared transactions because it would penalize clearing member banks for prudent and conservative margin requirements, substantially overstate a bank’s actual exposure to a client cleared transaction, and increase the cost to end-users.

Moreover, not only would the Proposed Framework fail to allow cash collateral to offset the client cleared derivative transaction, but the clearing member also may be required to include the cash collateral in its Exposure Measure in addition to the derivative transaction. Such an approach would penalize cleared transactions, which are largely margined with cash collateral.

Further, we understand that the Committee may be reluctant to allow collateral to offset a derivative transaction due to concerns about collateral re-hypothecation and re-use. In the client cleared derivative context, however, there is very little risk that a clearing member bank may use client collateral to leverage further. Clearing members and CCPs are required to hold customer collateral in segregation at all times, only with certain permitted depositories, and only in specifically denominated accounts. Clearing members and CCPs are also subject to significant restrictions on their use of customer collateral, which effectively prohibits the re-hypothecation of such collateral except to meet customer obligations at the CCP or to invest in certain highly liquid assets.

For all of these reasons, the Exposure Measure should not include a client cleared transaction. That is, neither the client leg nor the CCP leg should be included in the Exposure Measure. This approach would better recognize the benefits of, avoid higher capital requirements on, and preserve the incentives for client cleared transactions, all of which are critical to realizing the G20’s mandate for central clearing.

C. Exclude the CCP Leg and Recognize Collateral and Netting for the Client Leg

1. Exclude the CCP Leg of a Client Cleared Transaction

In the event that the Committee is unwilling to fully exclude client cleared transactions from the Exposure Measure, at a minimum, the CCP facing leg of a client cleared transaction should be excluded. To the extent the Proposed Framework applies to client cleared transactions, the Committee may be reluctant to allow cash collateral to offset the client cleared derivative transaction, but the clearing member also may be required to include the cash collateral in its Exposure Measure in addition to the derivative transaction. Such an approach would penalize cleared transactions, which are largely margined with cash collateral.
transactions, the Exposure Measure would significantly overstate a bank’s actual exposure to such transactions by including both the CCP leg and the client leg of a client cleared transaction.

First, the CEM is applied only once to a bank’s bilateral derivatives trade, but it may apply twice in a client cleared transaction—once to the client leg and once to the CCP leg. It would be punitive to include both legs because it would subject client cleared transactions to double the capital requirement of bilateral transactions. These additional capital costs would eventually be passed on to clients, who as a result may prefer not to hedge or prefer to engage in bilateral trades instead of paying the extra fees of a client cleared transaction.

Second, as the Committee has recognized, a clearing member bank does not have exposure if the CCP defaults on this leg of the trade because the bank typically does not guarantee the CCP’s performance to the bank’s customer.71 Excluding the CCP leg from the Exposure Measure would thus be consistent with the treatment of this leg in the Basel III risk-based capital requirements.72

To avoid these negative consequences and avoid undermining the G20 mandate to centrally clear derivatives, the Associations strongly believe that the Exposure Measure should not apply to the CCP leg of a client cleared transaction.

2. Recognize Collateral and Netting for the Client Leg of a Client Cleared Transaction

Further, in the event that the Committee is unwilling to fully exclude client cleared transactions from the Exposure Measure, any client leg that is included in the Exposure Measure should appropriately recognize collateral offsets and netting, either through an adjusted CEM or a revised and appropriately calibrated NIMM that fully recognizes collateral offsets and netting.

As discussed above, client cleared transactions are subject to strict margin requirements to reduce counterparty exposure to the client. However, these exposure-reducing effects are not taken into account in the Exposure Measure. As discussed above, under the Proposed Framework, client cleared transactions would be calculated using the CEM, which was designed for one bilateral trade as principal with a counterparty, rather than for two back-to-back, identical trades as an intermediary. Where margin is in the form of cash (as it often is), clearing banks could even be required to add the cash collateral to their Exposure Measure but would not be permitted to reduce the value of the derivative by the collateral, effectively double counting the exposure for purposes of the Exposure Measure (once for the derivatives exposure without the collateral offset, and once for the cash collateral received).73

71 To the extent the clearing member bank guarantees the CCP’s trade with the client, the Associations recognize that this exposure should be included in the Exposure Measure.

72 See Basel III, at ¶ 99.

73 See Proposed Framework, at ¶¶ 19, 27.
Moreover, client collateral is segregated in a protected account that cannot be further leveraged. As discussed above, clearing member banks are subject to regulatory restrictions—and even prohibitions—on re-hypothecating or re-using client collateral. Thus, such collateral should not significantly introduce leverage into the system.

We strongly urge the Committee to recognize cash collateral offsets and netting in any measure of the client leg of a cleared transaction to recognize all the cash collateral offset and netting principles discussed in sections III and IV.B above. In addition, the Exposure Measure should adjust the client leg of a client cleared transaction to ensure that the PFE measure uses a shorter margin period of risk in recognition of a more rapid closeout period than in a bilateral transaction.\(^74\)

These adjustments to the measurement methodology could be achieved by adjusting CEM or revising the NIMM to reflect industry comments.\(^75\) The Associations believe that the NIMM, as adjusted to reflect industry comments, is the better approach. As the Committee has recognized, the NIMM “is intended to better capture the effects of collateral and netting than CEM, and is calibrated to a stress period. As such, “NIMM should be more appropriate to centrally cleared derivatives transactions than CEM.”\(^76\)

This treatment would recognize the main purposes of central clearing: to reduce risk in the banking system by imposing standard, stringent margin requirements and allowing netting on a multilateral basis. It also would align with economic reality: the clearing member must segregate the client’s collateral in a protected account, and the clearing member may not use the client collateral as an economic resource.

VI. Need to Modify Key Terms of the 2010 Supplementary Leverage Ratio

If the modifications to the Proposed Framework described in this letter are not adopted, the Exposure Measure will become considerably larger and will cause the leverage ratio to become the binding minimum capital requirement for a significant number of banks. These banks will be subject to significantly higher capital charges for cash and other extremely low-risk assets, such as sovereign debt securities and other Level 1 HQLA, that generate very low levels of income. That in turn will generate strong economic pressure to greatly reduce the amounts of Level 1 HQLA they hold in excess of regulatory minimums.

Indeed, many banks have large exposures to low-risk assets due to core businesses that are central to the financial system, such as making markets in sovereign securities and acting as counterparties to central banks that trade in such securities to execute monetary policy. If the leverage ratio becomes even close to the binding requirement for such firms, either on a point-in-time basis and/or after reflecting stress test impacts, the resulting strong incentives

\(^{74}\) See BCBS NIMM Consultative Document, at ¶ 81.

\(^{75}\) Industry comments should be carefully reviewed and incorporated into the NIMM before finalizing the leverage ratio Exposure Measure.

\(^{76}\) BCBS Central Counterparties Consultative Document, at ¶ 23.
to reduce their exposures to low-risk assets is likely to have very negative and unintended consequences on these critical financial activities.

Likewise, a binding or near-binding leverage ratio could cause commercial banks to constrain credit more generally. Particularly in Europe and the emerging economies, banks act as intermediaries for corporate borrowers through commitments to lend and back-up support facilities for capital markets transactions. A considerable proportion of corporate exposures is in the form of low-risk, off-balance sheet exposures, including trade, export, and project-finance related commitments, which will be penalized by the uniform 100 percent CCF. As a result, government stimulus programs focused on retail or small and medium sized enterprises may be less effective. The final calibration of the leverage ratio therefore should carefully assess the potential consequences on the broader economy to avoid recessionary or pro-cyclical impacts.

At the same time, in the wake of the financial crisis, regulators have substantially increased requirements for banks to hold ever higher levels of liquid assets to deal with unexpected future funding pressures. For example, the LCR requires banks to hold sufficient unencumbered HQLA to cover the total net cash outflows over a 30-day period under the prescribed stress scenario. A binding leverage ratio creates pressure to shed liquid assets that is fundamentally at cross purposes with this sound regulatory initiative. It also creates incentives for banks to reduce other core activities that put HQLA on their balance sheets, such as, in periods of market stress, discouraging the deposit of cash or other very low risk assets for safekeeping as nervous investors de-risk and attempt to engage in a “flight to quality.” Such investors may instead turn to less regulated parts of the shadow banking system to deploy their cash, which would increase systemic risk, or otherwise engage in panic-driven destabilizing activities.

To avoid these perverse results, the Associations believe that certain aspects of the Exposure Measure that were adopted in 2010 should be revisited and modified.

The simplest and most straightforward proposal is to fully exclude from the Exposure Measure cash claims on central banks. Indeed, an exclusion should also apply to other Level 1 HQLA and very low risk SFT assets that are critical to the functioning of the financial system. In the alternative, the extent to which such assets count in the Exposure Measure should be reduced on a sliding scale based on the relative liquidity of such assets. These exclusions from the Proposed Framework would much better align the leverage ratio to truly significant risk exposures and eliminate or greatly reduce the perverse incentives to shun cash and other high quality, highly liquid assets.

Although the Committee may feel that even sensible exceptions to the leverage ratio, once granted, could become a “slippery slope” for additional exceptions, the reality is that the measure has already evolved into one that is considerably less simple than originally conceived: as the Proposed Framework demonstrates, the leverage ratio no longer simply covers on-balance sheet assets, but now extends in complicated ways to off-balance sheet exposures that are not so simply captured. We recognize, as the Committee does, that “some complexity within

77 BCBS LCR Framework, at ¶ 23.
the regulatory framework is inevitable, as banks’ business models cannot be simplified beyond a certain point.”78 In this context, the Associations strongly believe that limited exclusions for cash and other very low risk assets would not only preserve the essential utility of a leverage ratio; it would also strengthen its effect by eliminating or greatly reducing the perverse effects it can cause.

In addition to the requested exclusions for cash and other very low-risk assets, the CCF for other off-balance sheet assets in the Exposure Measure should be recalibrated to better measure actual exposures, including trade, project, and export finance commitments, to avoid constraining credit in the broader economy.

Finally, any Final Framework should clarify that the Capital Measure numerator—but not the Exposure Measure denominator—could be calculated quarterly, rather than based on monthly averages like the denominator, to avoid unnecessary operational burden. In addition, the monthly calculation requirement for the Exposure Measure denominator should be phased in over a longer period for smaller banks and banks that currently are not required by their home jurisdictions to calculate regulatory capital ratios on a monthly basis.

A. Exclude Cash Claims on Central Banks

As a starting point, the Exposure Measure should exclude cash claims on central banks, including both cash on deposit and currency. Cash is, by definition, the most liquid, riskless asset and has little or no loss of value during times of stress. The Basel III LCR, for example, assesses the liquidity of assets by how easily and immediately they may be converted into cash.79

There is broad consensus among regulators and the industry that cash claims on central banks do not generate the type of risk of loss that capital is meant to offset. Instead, the industry has sought to increase, and regulators have sought to incentivize, central bank placements and other cash holdings to improve the banking system’s ability to meet liquidity needs and absorb shocks from economic stress.80 A binding or near-binding leverage ratio, as proposed, would provide a strong incentive to hold limited levels of cash by requiring capital for a riskless asset that achieves little to no returns.

Moreover, a stated purpose of the Proposed Framework is to avoid contributing to the vicious cycle of “fire sales” of certain types of assets during periods of market stress.81 Cash does not fall into this category; to the contrary, in times of economic stress, customers tend to flood the banking system with deposits rather than deploy their resources in riskier assets. This

78 BCBS Simplicity Discussion Paper, at ¶ 32.
79 See, e.g., BCBS LCR Framework, at ¶ 1.
80 See id. at ¶ 2.
81 See Proposed Framework, at ¶ 1 (“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.”).
can cause significant volatility in on-balance sheet assets, including for custody banks that maintain the primary operational accounts of institutional investors with large and diversified global investment portfolios. Banks have little control over when customers choose to deposit cash rather than invest in other assets, and the leverage ratio should not penalize banks for conducting this core banking function. Moreover, the leverage ratio should allow for banks to manage unpredictable spikes in customer deposit activities without having to resort to potentially destabilizing actions, such as the throttling of payment flows or a refusal to accept cash deposits, with investors then forced to place such cash in less or unregulated shadow banking entities.

A simple, blanket exclusion of cash claims on central banks from the Exposure Measure would address these concerns without damaging the leverage ratio principle of having a simple, minimum percentage of required capital for real economic exposures.

B. Exclude Other Level 1 HQLAs

For very similar reasons, the Exposure Measure should also exclude other types of Level 1 HQLA. Aside from cash and deposits at central banks, Level 1 HQLA includes only limited types of highly rated, highly liquid sovereign bonds—ones that receive very high credit ratings.\textsuperscript{82} Sovereign debt generally is recognized as Level 1 HQLA only if it meets certain stringent conditions: it must receive a 0 percent risk-weight under the Basel II Standardized Approach (AAA to AA- rated debt),\textsuperscript{83} it must be traded in large, deep, and active repo or cash markets that have a low concentration level; it must have a proven record as a reliable source of liquidity in repo or sale markets, even in stressed market conditions; and it must not be an obligation of the bank itself or its affiliates.\textsuperscript{84} Moreover, “central bank eligibility does not by itself constitute the basis for the categorisation of an asset as HQLA.”\textsuperscript{85}

Thus, Level 1 HQLAs are by definition highly liquid, low risk, and can “be easily and immediately converted into cash at little or no loss of value” during times of economic stress.\textsuperscript{86} Moreover, just as cash deposits increase in banks during crises, investors engage in system-wide “flight to quality” by investing in these low-risk Level 1 HQLA rather than in riskier assets. These “flight to quality” assets remain liquid even in times of stress,\textsuperscript{87} and like cash, simply do not generate the risk of loss that capital is intended to absorb.

The Committee has already determined that these assets “can be relied upon to raise liquidity” in stressed scenarios. Thus, for the reasons described above for cash, there are very strong prudential reasons to incent banks to hold higher levels of Level 1 HQLA, not lower levels. An exclusion from the Exposure Measure for Level 1 HQLAs other than cash would be

\textsuperscript{82} See BCBS LCR Framework, at ¶ 50(c).
\textsuperscript{83} See Basel II, at ¶ 53.
\textsuperscript{84} BCBS LCR Framework, at ¶ 50(c).
\textsuperscript{85} Id. at ¶ 27.
\textsuperscript{86} Id. at ¶ 24.
\textsuperscript{87} Id.
appropriate in this context to avoid the powerful disincentive to shed such assets absent an exclusion.

The rationale for excluding Level 1 HQLA from the Exposure Measure is amplified in the context of deposits that are required to be collateralized by very low-risk assets; without an exclusion for such assets, inappropriate double counting would occur. For example, in the United States, banks provide financial services to US Public Sector Enterprises (“PSEs”) including demand deposits, time deposits, and a variety of traditional banking services. These PSEs include states, counties, large cities, public utilities, public hospitals, and public universities. Many of these customers receive earnings credit on the deposits and use this credit to pay for essential banking services. Virtually all of these customers are legally required to maintain deposits that are collateralized with US government obligations. That is, a bank holding PSE deposits is required to purchase US Treasuries to collateralize the deposits. If banks are compelled to hold more capital for these mandatory investments in US Treasuries, then these higher costs would be passed on to PSEs.

Finally, as a result of SFTs, many banks hold loans that are over-collateralized with Level 1 HQLA that pose essentially the same extremely low risk of default as the underlying collateral. In fact, SFTs are less risky than the underlying collateral because a bank loses only if the counterpart defaults and the value of the collateral declines. However, a binding or near-binding leverage ratio would provide incentives for banks to exit the markets for such SFTs. As the example on pages 4-5 showed, a bank reasonably would require a 50 basis point spread just to cover the cost of capital, yet the typical market spread for such a reverse repo today is only 5 basis points—producing a shortfall of 45 basis points. Given this very substantial difference between actual market spread and the required spread to achieve the cost of capital, banks would rationally reduce their participation in SFT markets. Thus, these collateralized loans should also be excluded from the Exposure Measure.

Indeed, such an exclusion is important to ensure proper functioning of monetary policy. Governments primarily use SFT markets to implement monetary policy and manage bank reserves, which requires banks to be the counterparty to such transactions. For example, the U.S. Federal Reserve considers repos to be “the most common form of temporary open market operation.”88 The Federal Reserve conducts repos and reverse repos with primary bank dealers “to offset temporary swings in bank reserves,” where “a repo temporarily adds reserve balances to the banking system, while reverse repos temporarily drain[] balances from the system.”89 As recently as August 2013, the Federal Reserve has been working with market participants “to ensure that [reverse repos] will be ready to support any reserve draining operations that the Federal Open Market Committee might direct.”90 Similarly, the Bank of

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89 Id.

England implements monetary policy by lending “predominantly” through repos.\textsuperscript{91} It is therefore critical to exclude cash and other Level 1 HQLA held through SFTs to ensure that the leverage ratio does not interfere with these operations.

C. \textbf{In the Alternative, Adopt Liquidity Weights to Discount the Exposures of HQLA}

If the Final Framework does not fully exclude cash and other Level 1 HQLA, then it should at least reduce the extent to which such assets are treated as exposures. The framework could do this by adopting a sliding scale of reduced exposures that correspond to the relative liquidity of such HQLA, \textit{i.e.}, by adopting a simple set of “liquidity weight” buckets. For example, cash would receive a liquidity weight of zero percent, and sovereign bonds and centrally cleared derivatives would receive a low-but-not-zero liquidity weight. The calibration could correspond to the HQLA haircuts used in the LCR.\textsuperscript{92} While these liquidity weights would not fully avoid the perverse and negative consequences discussed above, they would greatly reduce such effects and allow banks to better manage their capital positions while serving customer needs.

D. \textbf{Re-calibrate Credit Conversion Factor for Other Off-Balance Sheet Assets}

The Proposed Framework expressly requires that certain off-balance sheet exposures, such as those generated by derivatives, be included in the Exposure Measure of the leverage ratio by using the measurement methodologies described above. The Proposed Framework generally requires other off-balance sheet exposures to be included in the Exposure Measure by applying a uniform 100 percent CCF.\textsuperscript{93} The 100 percent CCF is a blunt measure that grossly overstates actual exposure for most off-balance sheet items. Rather than adopt this approach, the Associations strongly urge the Committee to conduct a study to assess the appropriateness of the 100 percent CCF for different types of off-balance sheet exposures, and adjust the Exposure Measure accordingly to better reflect actual exposure. In the alternative, any Final Framework should draw on other Basel Committee precedent in a very similar context to better calibrate the CCF: such an adjusted CCF should be based on either the exposure categories reflected in the Basel II Standardized Approach or the drawdown rates in the LCR.

Around the world, banks play a crucial financial intermediary role through the extension of credit either in funded loan form or in an unfunded manner via the provision of lending commitments. Bank commitment activity covers a very broad range of customers and activities including retail borrowers through items like mortgage and consumer loan commitments, municipal and government finance, trade and infrastructure finance, and the provision of backstop credit facilities to corporate customers. Given the size and importance of

\begin{itemize}
  \item \textsuperscript{91} Bank of England, The Monetary Policy Committee, \textit{The Transmission mechanism of monetary policy} 4 (May 1999).
  \item \textsuperscript{92} See BCBS LCR Framework, at ¶¶ 49, 52, 54.
  \item \textsuperscript{93} Proposed Framework, at ¶ 41. The Associations support the 10 percent CCF for commitments that are unconditionally cancellable at any time by a bank without prior notice and believe it is appropriately conservative based on historical experience. \textit{Id}. at ¶ 42.
\end{itemize}
these activities to banks, issuers, and investors alike, it is crucial that the leverage ratio appropriately capture and calibrate commitment exposure such that prudential regulation reduces idiosyncratic and systemic risk but also allows banks to continue playing their intermediary role.⁹⁴

1. **The 100 Percent CCF Overstates Drawdown Rates**

   Although an off-balance sheet item creates an exposure because the counterparty may draw down bank funds, the proposed 100 percent CCF for nearly all off-balance sheet items substantially overstates the actual drawdown rate, and therefore actual exposure, of most off-balance sheet items in the aggregate. As a result, we strongly encourage the Committee to recognize the very significant differences that exist between drawn loan exposures and backstop lending commitments as the CCFs are calibrated.

   The CCF was developed to translate off-balance sheet items into “credit exposure equivalents”; it is not a risk weight.⁹⁵ Off-balance sheet items are financial contracts that result in a bank acquiring certain assets at a future date under certain conditions. Unlike drawn loans, backstop commitments are contingent exposures that require borrowers to take action and also meet a number of conditions precedent prior to a bank lending funds. Drawn loan exposures give rise to an exposure that can be leveraged as banks have lent money and await repayment. Commitments, however, do not give rise to the same exposure. In order to be exposed to loss, the lending client first needs to make a decision to borrow funds. Furthermore, there are a number of conditions precedent (e.g., meeting or exceeding financial ratios, no material adverse change event, etc.) that must be met in order to receive bank funding. Lastly, the borrowers generally borrow funds to meet a bona fide business purpose. Thus, actual drawdown rates are significantly limited by the contingent nature of off-balance sheet items.

   The LCR requirement to hold unencumbered assets against these off-balance sheet items will compound these effects. Under the Proposed Framework, the effective exposure amount of an off-balance sheet item would be even greater than 100 percent because the LCR requires a bank to hold unencumbered cash or other HQLA to cover the total net cash outflows over a 30-day stress scenario.⁹⁶ Off-balance sheet items must be included in the total net cash

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⁹⁴ To put the off-balance sheet commitment aspect of the proposed Exposure Measure into context from a scale and economic impact perspective we note the following. In the US, the Federal Deposit Insurance Corporation (“FDIC”) publishes a listing of all unused commitments extended by the banks under their purview. Such unused commitments include revolving, open-end lines of credit, commitments secured and not secured by real estate, credit card lines, and others. The total unused commitments extended by the 6,940 FDIC-covered banks in the US stood at almost $6 trillion dollars as of 30 June 2013. See FDIC, Statistics on Depository Institutions Report (report for all national institutions on total unused commitments) (search conducted 16 September 2013). Of course, if we were to calculate similar exposures in other jurisdictions that adhere to the Basel framework, it would likely amount to trillions more in covered commitments. The sheer size of the marketplace and the importance of these facilities to the broader economy underscores the importance of proper exposure measurement and calibration.

⁹⁵ See Basel II, at ¶ 82.

⁹⁶ BCBS LCR Framework, at ¶ 23.
outflows according to drawdown percentages, and a bank must hold sufficient cash or other HQLA for such commitments to meet the LCR. For the leverage ratio calculation, such cash or other HQLA will in turn be included in the Exposure Measure in addition to the 100 percent CCF for off-balance sheet items. As a result, the CCF for an off-balance sheet commitment effectively would be greater than 100 percent for purposes of the leverage ratio. This result is both perverse and economically incorrect.

Some examples illustrate why the uniform 100 percent CCF would be inappropriate and excessive. Trade finance instruments, for instance, are low-risk, short term financing products that are underpinned by the movement of goods and provision of services. The 100 percent CCF (plus the add-on for unencumbered assets held under the LCR) would increase the cost of or decrease the demand for such products, potentially leading to significant unintended market consequences that would disrupt global trade. In fact, the Committee expressly recognized in the analogous regulatory context of limiting large exposures by banks that it is “inappropriate to apply the flat 100% CCF to specific types of exposure if there is a risk that this could have material unintended consequences.” It further recognized that “[t]his is the case for exposures linked to trade finance activities, where application of a flat 100% CCF is likely to have a material adverse impact on an essential form of financing in some countries, particularly emerging markets.” Similarly, lending under official export credit insurance regimes may be affected because off-balance sheet exposures related to these regimes would be converted to the Exposure Measure at full face value, hampering global export flows.

The 100 percent CCF is also inappropriate as applied to project finance and infrastructure related products, which historically have had very low drawdown rates. Unless adjusted to better reflect actual economic exposure, the 100 percent CCF may lead banks to limit their project and infrastructure finance products, which would be detrimental to the significant demand for infrastructure financing in Europe and emerging markets. Given the significant demand for project and infrastructure financing and banks’ potential unwillingness to fund it through SFTs (see discussion above) or through off-balance sheet exposures, corporate entities may be required to increase their reliance on traditional bank lending as opposed to obtaining market funding backed by a bank line of credit. Such traditional bank lending can be more expensive than direct market financing, translating to less corporate activity; it would also be contrary to the EU’s objective to decrease corporates’ reliance on direct bank funding.

2. Conduct a Study or Calibrate CCFs to More Accurately Reflect Actual Drawdown Rates

Given these significant and recognized unintended consequences, the Committee should review the appropriateness of the 100 percent CCF for particular types of off-balance sheet exposures by conducting an empirical analysis based on historical data, much like it

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97 See id. at ¶¶ 131-40.

98 Basel Committee on Banking Supervision, Supervisory Framework for Measuring and Controlling Large Exposures ¶ 66 (March 2013) [hereinafter “BCBS Large Exposures Framework”].

99 Id.
intends to do for the 10 percent CCF that applies to unconditionally cancellable commitments. The Committee should study how those off-balance sheet items have actually translated into real credit exposures based on historical market experience and draw-down rates under a variety of stressed conditions. It should then use that data to calibrate different CCFs for different off-balance sheet items using these conservative assumptions. This would be a far more sensible approach than simply assuming that all commitments are subject to a 100 percent CCF.

3. **Adopt the Basel II Standardized Approach CCFs**

Should the Committee choose not to recalibrate the CCFs based on historical experience, any Final Framework should adopt the CCF exposure categories in the Basel II Standardized Approach. Thus, for example, trade finance instruments should receive a 20 percent CCF for short-term, self-liquidating letters of credit arising from the movement of goods and a 50 percent CCF for transaction related contingent items. These figures, rather than the flat 100 percent CCF in the proposal, better reflect the fact that certain off-balance sheet items will not convert to on-balance sheet exposures. This approach also would be consistent with the approach adopted by the European Union in the Capital Requirements Directive IV and the Capital Requirements Regulation, and suggested by the Committee in the Large Exposures Consultative Document. These CCFs are reasonable proxies for exposure measures because they estimate the drawn amount of a commitment—and they are much better measures of actual exposure than the blunt 100 percent CCF set forth in the Proposed Framework. Moreover, the CCFs in the Standardized Approach are not risk-weights but instead estimates of actual exposure amounts. As a result, the use of the better calibrated actual exposures in the Standardized Approach—rather than a blunt and inflated 100 percent CCF—would be far more consistent with the rationale underlying the Exposure Measure to be used for leverage ratio purposes.

4. **Adopt the LCR Drawdown Rates**

The uniform 100 percent weight also does not properly consider the robust and extensive work done by the Committee to establish appropriate exposure measure for off-balance sheet lending commitments through the creation of a limited number of “runoff” rates that reflect banks’ potential funding obligations as a function of the banks’ clients. Thus, as an alternative to the Basel II Standardized Approach CCFs, the Committee should use the drawdown rates applied in the LCR instead of the uniform 100 percent CCF.

In its LCR standard setting process, the Committee set out to both measure the potential funding obligations that banks assume when extending backstop commitments and ensure that banks pre-fund those contingent exposures with unencumbered HQLAs. Through qualitative impact studies, data analyses and stress assumptions, and extensive interaction with various market participants, the Committee established a limited set of draw-down assumptions

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100 See Proposed Framework, at ¶ 42.

101 Basel II, at ¶¶ 82-86.

102 BCBS Large Exposures Framework, at ¶ 66.

103 See BCBS LCR Framework, at ¶¶ 127-40.
that banks must apply to each commitment that they extend. The work done by the Committee led to a paradigm where a bank’s exposure to potential funding obligations can be simply set based on the nature of the counterparty. For example, a non-financial corporate customer is assumed to draw 10 percent of its available backstop commitment (in a stressed environment) over the upcoming 30-day horizon whereas an unregulated financial institution is assumed to draw 100 percent of its available backstop commitment over the same time frame. This exposure measure is not a risk-based framework; rather, the work done to set the LCR drawdown rates is the regulatory determination of the bank’s exposure to potential funding in a stressed environment.

Certainly, the work to define the appropriate amount of potential future funding is noteworthy, but there are two underpinning foundations to the LCR work that are equally noteworthy and directly transferrable to calibrating the CCFs for leverage ratio purposes. First, the Committee explicitly recognized that banks’ commitments will not be fully drawn by all of their clients across their entire commitment portfolios, which led to the conclusion that less than 100 percent CCFs are appropriate for commitments. Second, the Committee recognized that borrowing behavior can be segmented in a limited fashion to reflect the reality that future draw behavior is dependent on the nature of the borrower. We strongly encourage the committee to incorporate the noted LCR underpinnings into the leverage ratio metric. More specifically, we recommend that, as the Committee works to establish the appropriate exposure measure for backstop commitments, there is a similar capacity to incorporate a limited number of borrower segments that will naturally generate less than 100 percent future exposure amounts.

Finally, the Committee has determined through the LCR that, as a prudential regulatory matter, banks should be required to defease their potential funding obligations with unencumbered HQLAs. As a result, banks will need to set aside HQLAs to pre-fund the regulatory determined amount of potential funding in a stressed environment. The effect to banks therefore is (1) that their unfunded commitment exposure (in a stressed environment) has been set according to prudential regulatory standards and (2) the required regulatory liquidity amounts show up as an asset on their balance sheets. In light of the Committee’s work on the LCR, we encourage the Leverage Ratio working group to consider adopting the same exposure measurement approach for off-balance sheet commitments.

Under such an approach, the CCFs applied to commitments for Leverage Ratio purposes should mirror runoff factors set by the Committee in the LCR. For example, the exposure amount for a $100MM commitment extended to a non-financial corporate customer should equal $10MM ($100MM * 10%), whereas a $100MM commitment to an unregulated financial customer would be equal to $100M ($100MM * 100%). Trade finance instruments would receive “a relatively low runoff rate (e.g., 5% or less),” which appropriately reflects the low drawdown rates underpinned by the movement of goods or provision of services.104 These runoff rates conservatively assume a stressed environment in which “all facilities that are assumed to be drawn . . . will remain outstanding at the amounts assigned throughout the

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104 Id. at ¶ 138.
duration of the test, regardless of maturity.”105 These conservative assumptions also should be appropriate as applied to off-balance sheet items in the leverage ratio context.

Furthermore, due to both the robust process used to finalize the LCR and the requirement that banks maintain unencumbered HQLAs to fully defease the LCR requirement, there is no need to double count the notional amount of the backstop commitment in the leverage ratio. We therefore recommend that the notional amount of off-balance sheet commitments be removed from the denominator of the proposed leverage ratio as the commitment exposure will be fully captured through the LCR defeasance requirements. For instance, a $100MM unused commitment extended to an unregulated financial institution would be reflected as $100MM on-balance sheet asset ($100MM of LCR unencumbered HQLAs) for leverage ratio purposes rather than a $200MM on-balance sheet asset ($100MM of LCR unencumbered HQLAs plus $100MM commitment notional) as is the case with the current proposal. Similarly, a $100MM unused commitment to a non-financial corporate would be reflected as a $10MM on-balance sheet asset ($10MM of LCR unencumbered HQLAs) for leverage ratio purposes rather than a $110MM on-balance sheet asset ($10MM of LCR unencumbered HQLAs plus $100MM commitment notional) as is the case with the current proposal.

E. Mechanics for Calculating the Leverage Ratio

The Proposed Framework requires banks to calculate the leverage ratio based on the average monthly ratio over each quarter rather than a single calculation at quarter-end. The Associations acknowledge the legitimate objective of achieving a representative, through-the-cycle view of a bank’s leverage ratio, especially in terms of calculating the Exposure Measure denominator of that ratio. Because the Exposure Measure can fluctuate substantially, especially at quarter-end, it makes sense to consider an average measure based on several points in time during the quarter. There are, however, two aspects of the monthly calculation that should be reviewed.

First, as proposed, the monthly calculation would apply to the leverage ratio as a whole, including the tier 1 capital numerator. There is far less need for monthly calculations of the tier 1 capital numerator (as opposed to the Exposure Measure denominator) to achieve the objective of a through-the-cycle measure. The amount of tier 1 capital is much less likely to fluctuate significantly from month to month—and is much less susceptible to “gaming” concerns—than the Exposure Measure denominator. At the same time, tier 1 capital is currently calculated once at quarter-end, and there would be a substantial increase in regulatory burden for many institutions to calculate that measure at the end of each month. As a result, the Associations request that, even though the Exposure Measure denominator of the leverage ratio is required to be calculated each month, the tier 1 Capital Measure for the numerator should only be required to be calculated on a quarter-end basis, consistent with current industry practice.

Second, for smaller banks and banks that do not currently calculate the Exposure Measure (or its accounting equivalent) on a monthly basis, the Final Framework should phase in the monthly calculation requirement over a longer period than would otherwise apply. This

105 Id. at ¶ 126.
phase-in period should be of sufficient additional time to allow such banks to make the necessary operational changes. Such banks ultimately would be required to calculate the Exposure Measure on a monthly basis.

To be clear, if these requests were granted, the application of the leverage ratio would not be delayed for banks, and the denominator of the leverage ratio would ultimately be calculated on a monthly basis by all banks.

VII. Scope of Consolidation

The Associations strongly support the statement that the Exposure Measure and the Capital Measure should be measured consistently.106 The Proposed Framework, however, would produce inconsistent measures because it would include all assets “that are inside the scope of regulatory consolidation or inside the scope of accounting consolidation.”107 Because the Capital Measure numerator is calculated only using the regulatory scope of consolidation, it would be inconsistent to include in the Exposure Measure denominator those assets that are within the scope of accounting consolidation but not inside the scope of regulatory consolidation.

For example, the Proposed Framework provides that, “where a commercial investee is inside the scope of accounting consolidation but outside the scope of regulatory consolidation, the commercial investee’s assets and other exposures . . . must be included in the Exposure Measure of the bank, because the investment in the commercial investee remains included in the capital of the bank.”108 The Capital Measure numerator uses only the regulatory scope of consolidation and captures the equity investment in the commercial investee, but not other loss-absorbing components, such as retained earnings. Meanwhile, the Exposure Measure denominator uses the accounting measure to capture the full assets and other exposures of the investee. This results in inconsistent measures in the numerator and denominator: the denominator would include the full assets of the investee, but the numerator would not include the full capital of the investee. A similar situation could occur with securitization investees.109

To avoid these inconsistent measurement methods, the Associations believe that the proposed leverage ratio should be adjusted to use only the regulatory scope of consolidation in the Exposure Measure denominator, just as it uses only the regulatory scope of consolidation in the Capital Measure numerator. The other approach to achieve consistency would be to adjust the Capital Measure numerator to include all the loss-absorbing tier 1 components of an investee’s capital—but this approach would have the disadvantage of producing a different tier 1 Capital Measure for the leverage ratio than for the risk-based capital ratio. A simpler, more consistent approach is to simply use the regulatory scope of consolidation in the Exposure Measure denominator of the leverage ratio.

107 Id. at ¶ 11.
108 Id. at ¶ 12 (second example).
109 See id. at ¶12 (third example).
VIII. Capital Measure

Although the Proposed Framework uses tier 1 capital as the Capital Measure in the numerator of the leverage ratio, the Committee requested comment on whether it would be more appropriate to use common equity tier 1 (“CET1”) capital instead. The Associations strongly believe that tier 1 is the proper Capital Measure, not CET1.

Tier 1 capital—including but not limited to CET1 capital—is expressly designed to absorb unexpected losses on a going concern basis. Moreover, Basel III strengthened the definition of tier 1 to ensure that all of its elements are sufficiently loss absorbent for going concerns. Thus, tier 1 capital consists predominantly of common shares, retained earnings, and instruments that are subordinated, have fully discretionary noncumulative dividends, and have neither a maturity date nor an incentive to redeem. In addition, tier 1 capital no longer includes hybrid instruments that did not adequately absorb losses during the financial crisis.

Given these characteristics, tier 1 capital is the appropriate “backstop” Capital Measure for the leverage ratio; there is no need to deviate from it in any Final Framework.

IX. Calibration of Supplementary Leverage Ratio

The Basel Committee should reaffirm the principle that the supplementary leverage ratio is intended to be just that—supplementary and a backstop—not the binding capital ratio that supersedes the risk-based requirement.

As a result, no decision to re-calibrate the 3 percent ratio should be made until the details of the Capital Measure and Exposure Measure are adopted in final form and a QIS has been completed on these final terms and on the expected macroeconomic consequences of the proposals in each product market. Given the wide range of changes to enlarge the Exposure Measure, a QIS is particularly important here to determine relative impact on banks and the extent to which various calibrations could result in the leverage ratio becoming the binding capital requirement, rather than the supplementary, backstop requirement.

Further, in making any new calibration assessment, the Committee should take full account of pending changes in both international and US accounting standards, which are likely to have a substantial effect on banks’ balance sheets. The following changes are likely to have particularly large effects on bank balance sheets: a potential new impairment regime, which is intended to require more impairments sooner; changes in accounting standards for operating leases which, if adopted, would bring a new “right of use” asset on-balance sheet; and stricter consolidation requirements for securitization-related activities. These and other changes in the main accounting standards will likely affect both the numerator and the denominator of the leverage ratio, depending on whether adjusted prudential filters are applied. Calibration of the ratio should therefore anticipate these developments, or at least, the ratio should be established as

110 Id. at ¶ 9.
111 The details of this new impairment regime are being debated and ultimately may be different in the two accounting regimes, but both are intended to have the effect of requiring more impairments sooner.
a dynamic metric with sufficient flexibility to avoid changes in banks’ leverage ratios merely as a result of accounting changes where there are no underlying economic changes.

Finally, the Basel Committee should reaffirm the principle that national authorities should adopt capital standards, including leverage ratios, that are comparable internationally. In particular, national authorities should not unilaterally increase such ratios to such an extent that they become the generally binding capital requirement for a material number of firms, thereby eliminating the fundamental rationale for and benefits of internationally harmonized capital requirements based on risk.

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Thank you for considering the concerns and recommendations raised in this letter. If you have any questions or need further information, please contact any of the following:

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Deputy Chief Executive Officer and Head of
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Appendix 1

The Associations

Global Financial Markets Association: The Global Financial Markets Association (“GFMA”) brings together three of the world’s leading financial trade associations to address the increasingly important global regulatory agenda and to promote coordinated advocacy efforts. The Association for Financial Markets in Europe (“AFME”) in London and Brussels, the Asia Securities Industry & Financial Markets Association (“ASIFMA”) in Hong Kong and the Securities Industry and Financial Markets Association (“SIFMA”) in New York and Washington are, respectively, the European, Asian and North American members of GFMA. For more information, visit http://www.gfma.org.

American Bankers Association: The American Bankers Association represents banks of all sizes and charters and is the voice for the nation’s $14 trillion banking industry and its 2 million employees. Learn more at www.aba.com.

Financial Services Roundtable: The Financial Services Roundtable represents 100 integrated financial services companies providing banking, insurance, and investment products and services to the American consumer. Member companies participate through the Chief Executive Officer and other senior executives nominated by the Chief Executive Officer. Roundtable member companies provide fuel for America's economic engine, accounting directly for $98.4 trillion in managed assets, $1.1 trillion in revenue, and 2.4 million jobs.

Institute of International Bankers: The Institute of International Bankers (“IIB”) is the only national association devoted exclusively to representing and advancing the interests of the international banking community in the United States. Its membership is comprised of internationally headquartered banking and financial institutions from over 35 countries around the world doing business in the United States. The IIB’s mission is to help resolve the many special legislative, regulatory, tax and compliance issues confronting internationally headquartered institutions that engage in banking, securities and other financial activities in the United States. Through its advocacy efforts the IIB seeks results that are consistent with the U.S. policy of national treatment and appropriately limit the extraterritorial application of U.S. laws to the global operations of its member institutions.

Institute of International Finance: The Institute of International Finance, Inc. (“IIF”) is a global association created in 1983 in response to the international debt crisis. The IIF has evolved to meet the changing needs of the international financial community. The IIF’s purpose is to support the financial industry in prudently managing risks, including sovereign risk; in disseminating sound practices and standards; and in advocating regulatory, financial, and economic policies in the broad interest of members and foster global financial stability. Members include the world’s largest commercial banks and investment banks, as well as a
A growing number of insurance companies and investment management firms. Among the IIF’s Associate members are multinational corporations, consultancies and law firms, trading companies, export credit agencies, and multilateral agencies. All of the major markets are represented and participation from the leading financial institutions in emerging market countries is also increasing steadily. Today the IIF has more than 450 members headquartered in more than 70 countries. For more information, please visit www.iif.com.

International Swaps and Derivatives Association: Since 1985, the International Swaps and Derivatives Association (“ISDA”) has worked to make the global over-the-counter derivatives markets safer and more efficient. Today, ISDA has over 800 member institutions from 60 countries. These members include a broad range of OTC derivatives market participants including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure including exchanges, clearinghouses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association’s web site: www.isda.org.
Appendix 2

Sample Calculation under the Current Exposure Method

An example shows the significantly increased cost of hedging using the Current Exposure Method (“CEM”). Assume a corporate client enters into a $100 million, 10-year interest rate swap to hedge a bond issuance, and the bank hedges with another market counterparty. Initial mark-to-market (“MTM”) is zero. The MTM and Exposure Measure are illustrated below:

<table>
<thead>
<tr>
<th>Trade Inception</th>
<th>MTM ($m)</th>
<th>Notional ($m)</th>
<th>Exposure ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facing Client</td>
<td>0</td>
<td>100</td>
<td>1.5</td>
</tr>
<tr>
<td>Facing Hedge Counterparty</td>
<td>(0)</td>
<td>(100)</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td><strong>3.0</strong></td>
</tr>
</tbody>
</table>

Subsequently, interest rates move 100 basis points and the swaps have a MTM of $9 million. Under CEM, this would increase the Exposure Measure by a factor of four:

<table>
<thead>
<tr>
<th>Post Market Move (100 bps)</th>
<th>MTM ($m)</th>
<th>Notional ($m)</th>
<th>Exposure ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facing Client</td>
<td>9</td>
<td>100</td>
<td>10.5</td>
</tr>
<tr>
<td>Facing Hedge Counterparty</td>
<td>(9)</td>
<td>(100)</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td><strong>12.0</strong></td>
</tr>
</tbody>
</table>

The bank may be able to reduce the Exposure with the hedge counterparty through periodic, mutually agreed re-couponing of the trades, but if the client has elected this swap for hedge accounting, that transaction typically cannot be amended, unwound or novated.

Examining the client facing transaction, at trade inception, even if the trade were subject to a robust collateral agreement, the bank would have to hold capital equivalent to 4.5 basis points of swap notional (3 percent of 1.5 percent of swap notional). Assuming 10 percent cost of capital and 40 percent rate of tax, this capital requirement would generate a 0.75 basis points annual cost. After the 100 basis points market move, the Exposure Measure increases from 1.5 percent to 10.5 percent and the annual cost rises to 5.25 basis points. These running costs will disincentivize banks from offering hedging services to clients at cost effective levels.
Appendix 3

Sample Calculation under the Proportional Approach to Hedge Written Credit Derivatives

An example illustrates the proposed proportional approach to hedge written credit derivatives. Assume a bank executes the following four trades:

<table>
<thead>
<tr>
<th></th>
<th>Notional</th>
<th>Tenor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bought</td>
<td>$200</td>
<td>4</td>
</tr>
<tr>
<td>Bought</td>
<td>$100</td>
<td>5</td>
</tr>
<tr>
<td>Sold</td>
<td>$100</td>
<td>4</td>
</tr>
<tr>
<td>Sold</td>
<td>$200</td>
<td>5</td>
</tr>
</tbody>
</table>

Assume the bank takes these positions and offsets them at each maturity, which results in the following net positions:

<table>
<thead>
<tr>
<th></th>
<th>Net Notional</th>
<th>Tenor</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bought</td>
<td>$(100)</td>
<td>4</td>
<td>The $100 net “bought” position arises when the $200 bought protection with a tenor of 4 years is netted with the $100 sold protection with a tenor of 4 years.</td>
</tr>
<tr>
<td>Sold</td>
<td>$100</td>
<td>5</td>
<td>The $100 net “sold” position arises when $200 sold protection with a tenor of 5 years is netted with $100 bought protection with a tenor of 5 years.</td>
</tr>
</tbody>
</table>

The bank’s true exposure is calculated as:

$$\frac{[(\text{Notional of Bought Protection} \times \text{Tenor}) + (\text{Notional of Sold Protection} \times \text{Tenor})]}{(\text{Sold Protection} \times \text{Tenor})}$$

which equals:

$$\frac{[(-100 \times 4) + (100 \times 5)]}{(100 \times 5)} = 20\%$$

Thus, the gross written exposure that should be included in the exposure measure is 20 percent of the net written notional of $100, or $20.
Appendix 4

The Global Financial Markets Association and The Clearing House Leverage Ratio Study:

Results of the Basel III Leverage Ratio Survey and

Results of the Supplementary Outside-in Analysis
Responding to the revised Basel III leverage framework

Results of the Basel III leverage ratio survey

September 20, 2013
GFMA’s Basel III leverage ratio survey covers 26 banks across Europe, US, Canada, and Japan

<table>
<thead>
<tr>
<th>Region</th>
<th>Participants</th>
<th>Asset Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eurozone</td>
<td>6</td>
<td>USD 12 trillion</td>
</tr>
<tr>
<td>Total Europe</td>
<td>11</td>
<td>USD 18 trillion</td>
</tr>
<tr>
<td>North America</td>
<td>13</td>
<td>USD 13 trillion</td>
</tr>
<tr>
<td>Japan</td>
<td>2</td>
<td>USD 3 trillion</td>
</tr>
</tbody>
</table>

Survey includes 26 banks with a total asset volume of USD 34 trillion, including 18 out of 28 G-SIBs.

To preserve confidentiality of participants, this document uses the following aggregation levels:
- Eurozone
- Total Europe
- North America
- Total (excl. Japan\(^1\))
- G-SIBs (incl. Japan)

The survey uses Q2/2013 data for 16 of 26 banks; the remaining 10 banks provided either Q1/2013 or Q4/2012 data.

\(^1\) Japan excluded due to limited number of survey participants for which results would be identifiable as difference between total and the other regions.

SOURCE: Basel III leverage ratio survey
The survey is based on Basel QIS figures – selected additional data fields allow for sensitivity analyses on exposure measure

Data requested from participating banks

- Accounting balance sheet
  • Comparison of Basel III leverage exposure to balance sheet assets

- Leverage ratio calculation
  • Calculation of current leverage ratio and potential shortfall
  • Understanding key drivers of exposure measure

- Information related to risk-based ratios and LCR
  • Calculating constraints from other Basel III measures, i.e., capital shortfall against risk-based ratios or liquid assets need against LCR requirement
  • Determination of incremental impact

- More detailed exposure breakdown (best effort basis)
  • Scenario analyses on varying exposure definitions

Excerpt from data templates

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
<th>Link to QIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 common</td>
<td>0.063</td>
<td>Capital</td>
</tr>
<tr>
<td>Tier 1 capital (fully loaded)</td>
<td>0.075</td>
<td>Capital</td>
</tr>
<tr>
<td>Tier 1 capital (adjusted)</td>
<td></td>
<td>Capital</td>
</tr>
<tr>
<td>RWA</td>
<td>General Info</td>
<td></td>
</tr>
<tr>
<td>Basel I RWA</td>
<td></td>
<td>RWA</td>
</tr>
<tr>
<td>Capital</td>
<td>DelCap/3</td>
<td></td>
</tr>
<tr>
<td>Tier 1</td>
<td>0.512</td>
<td>Basel III Advanced RWA</td>
</tr>
<tr>
<td>Tier 2</td>
<td>0.214</td>
<td>Basel III Advanced RWA</td>
</tr>
<tr>
<td>Liquidity</td>
<td>LCR</td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: Basel III leverage ratio survey
Nearly half of banks surveyed would have a leverage ratio below 3% under new Basel III framework

**Question**
- How many banks do not comply with the proposed 3% leverage ratio under the new Basel III definition?

**Approach**
- Leverage ratio calculated based on fully loaded Basel III Tier 1 capital
- In addition, leverage ratio also calculated using an adjusted Tier 1 capital, which assumes grandfathering or replacement of non-qualifying by qualifying Tier 1 capital under Basel III

**Current distribution of banks by leverage ratio**

<table>
<thead>
<tr>
<th>Leverage ratio</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2.5</td>
<td>21</td>
</tr>
<tr>
<td>2.5-3.0</td>
<td>25</td>
</tr>
<tr>
<td>3.0-3.5</td>
<td>17</td>
</tr>
<tr>
<td>3.5-4.0</td>
<td>17</td>
</tr>
<tr>
<td>&gt;4.0</td>
<td>21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leverage ratio</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-SIBs only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leverage ratio</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>All banks - adjusted Tier 1 capital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

1 Distribution of G-SIBs by leverage ratio
2 Distribution of all banks by leverage ratio, after incl. of non-Basel III compliant additional Tier 1 capital
3 Percentages may not add up to 100% due to rounding errors

SOURCE: Basel III leverage ratio survey
For more than half of banks surveyed, the leverage ratio is the binding constraint, not the risk-based capital ratio

<table>
<thead>
<tr>
<th>Question</th>
<th>Banks where leverage ratio is defining minimum Tier 1 capital requirement (as opposed to risk-based capital)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Share of surveyed banks in percent</td>
</tr>
<tr>
<td></td>
<td>All banks</td>
</tr>
<tr>
<td></td>
<td>Leverage ratio</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>54</td>
</tr>
</tbody>
</table>

¹ Note: if a bank is primarily constrained by the leverage ratio, it does not necessarily mean that the bank does not comply with the leverage ratio. In particular, the bank might hold excess Tier 1 capital above the minimum required capital which reduces/compensates the additional capital requirement.

² I.e., 8.5% plus G-SIB surcharge applied on individual bank level.

SOURCE: Basel III leverage ratio survey
For the surveyed banks the leverage constraint translates into USD 80 bn (6%) additional Tier 1 capital requirements

**Question**
- How much incremental Tier 1 capital is required to meet the minimum 3% leverage ratio?

**Approach**
- Incremental shortfall towards minimum leverage ratio calculated on top of the Tier 1 capital, which banks need to hold to comply with the minimum Basel III risk-based Tier 1 ratio
- For banks that are above the minimum risk-based Tier 1 ratio, incremental shortfall is calculated as delta towards available capital
- Risk-based Tier 1 ratio considers G-SIB surcharges by bank

## Required increase in Tier 1 capital to meet minimum ratios

<table>
<thead>
<tr>
<th>Percent of available Tier 1 capital (fully loaded Basel III)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum requirement covered by available capital</td>
</tr>
<tr>
<td>Shortfall towards minimum requirement</td>
</tr>
<tr>
<td>Excess from banks above minimum Tier 1 ratios</td>
</tr>
</tbody>
</table>

### Available Tier 1 Capital

- **USD billions:** 1,331
- **Shortfall towards minimum risk-based ratio:** +122
- **Compliance with risk-based ratios:** 1,453
- **Incremental shortfall towards minimum leverage ratio:** +80
- **Compliance with both risk-based and leverage ratios:** 1,533

<table>
<thead>
<tr>
<th>100</th>
<th>9</th>
<th>109</th>
<th>6</th>
<th>115</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>96</td>
<td>4</td>
<td>96</td>
<td>115</td>
</tr>
</tbody>
</table>

*See appendix for further explanation on approach*

1 Part of excess capital under risk-based ratios contributes to leverage ratio requirement

**SOURCE:** Basel III leverage ratio survey
Europe would require 15% additional Tier 1 capital on top of the risk-based capital requirements compared to 1% for North America

<table>
<thead>
<tr>
<th>Question</th>
<th>Percent of available Tier 1 capital (fully loaded Basel III)</th>
<th>Shortfall towards minimum risk-based ratio</th>
<th>Incremental shortfall towards minimum leverage ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How much incremental Tier 1 capital is required to meet the minimum 3% leverage ratio?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Approach</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Incremental shortfall towards minimum leverage ratio calculated on top of the Tier 1 capital, which banks need to hold to comply with the minimum Basel III risk-based Tier 1 ratio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• For banks that are above the minimum risk-based Tier 1 ratio, incremental shortfall is calculated as delta towards available capital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Risk-based Tier 1 ratio considers G-SIB surcharges by bank</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Shortfall covered by current excess Tier 1 capital</th>
<th>Shortfall towards minimum requirement</th>
<th>Incremental shortfall towards minimum leverage ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>16</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Eurozone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Europe</td>
<td>17</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>North America¹</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>G-SIBs</td>
<td>10</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>

¹ This analysis refers to proposed international standard calibration of 3%. It does not consider the US proposal (5% at the bank holding company level and 6% at the insured depository institution level) or other country-specific proposals for higher calibration of the leverage ratio. For an analysis of the US Enhanced Supplementary Leverage proposal, see The Clearing House Association report "Assessing the Supplementary Leverage Ratio", September 20, 2013.

SOURCE: Basel III leverage ratio survey
A buffer of 10% would increase incremental capital requirements for the surveyed banks from USD 80 bn (6%) to USD 94 bn (7%)

**Question**
- How does the incremental capital requirement change if banks hold an additional buffer above the regulatory minimum requirement?

**Approach**
- Incremental shortfall from leverage ratio assuming a 10% buffer above minimum requirements for both the risk-based Tier 1 ratio and the leverage ratio.
- Example – a bank with a minimum Tier 1 ratio of 10% is assumed to target an 11% Tier 1 ratio and a 3.3% leverage ratio.

### Additional capital requirements to meet leverage ratio on top of risk-based ratios

<table>
<thead>
<tr>
<th>Region</th>
<th>Based on minimum ratios</th>
<th>Assuming additional buffer of 10%¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>USD billions</td>
<td>Percent</td>
</tr>
<tr>
<td>Europe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eurozone</td>
<td>35</td>
<td>11</td>
</tr>
<tr>
<td>Total Europe</td>
<td>74</td>
<td>15</td>
</tr>
<tr>
<td>North America</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>6</td>
</tr>
<tr>
<td>G-SIBs</td>
<td>73</td>
<td>6</td>
</tr>
</tbody>
</table>

¹ On top of both minimum Tier 1 and minimum leverage ratios

SOURCE: Basel III leverage ratio survey
The leverage-based capital shortfall could be addressed by 6% deleveraging

**Question**
- By how much would banks need to de-lever (i.e., reduce their leverage exposure) in order to meet a minimum 3% leverage ratio without raising additional capital?

**Approach**
- Remaining Tier 1 capital shortfall from leverage ratio (after accounting for current excess Tier 1 capital) translated into exposure value at 3% minimum ratio

**2 alternative options to look at leverage ratio shortfall**

<table>
<thead>
<tr>
<th>Region</th>
<th>Incremental capital shortfall towards minimum leverage ratio</th>
<th>Corresponding deleveraging gap (Percent of today's leverage exposure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Eurozone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Europe</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>North America</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total G-SIBs</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

**Source:** Basel III leverage ratio survey
Deleveraging gap as % of selected asset classes (pro forma calculation)

<table>
<thead>
<tr>
<th>Question</th>
<th></th>
<th>Pro forma equivalent exposure as percent of today’s assets (not additive)</th>
<th>Percent of today’s exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>How does the derived deleveraging requirement compare to the current exposure in select asset classes?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pro forma calculation illustrating different options to de-lever</td>
<td>Deleveraging gap</td>
<td>Liquid assets</td>
<td>Derivatives</td>
</tr>
<tr>
<td></td>
<td>USD billions</td>
<td>Percent of today’s exposure</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>1,161</td>
<td>9</td>
<td>106</td>
</tr>
<tr>
<td>Eurozone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Europe</td>
<td>2,478</td>
<td>12</td>
<td>131</td>
</tr>
<tr>
<td>North America</td>
<td>175</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>2,653</td>
<td>6</td>
<td>62</td>
</tr>
<tr>
<td>G-SIBs</td>
<td>2,444</td>
<td>6</td>
<td>58</td>
</tr>
</tbody>
</table>

1 Assuming full reduction is applied to a single product category for select typical low-risk asset classes
2 Figures based on total liquid asset buffer; thereof share of cash (incl. central bank reserves) between 28% (North America) and 48% (Total Europe)

SOURCE: Basel III leverage ratio survey
Scenario analysis – 96% of banks would not meet a leverage ratio of 5%

Question
- How sensitive are the results with respect to the minimum leverage ratio threshold?

Approach
- Example 1 – Total capital shortfall towards risk-based Tier 1 ratios is 9% for all surveyed banks
- Example 2 – 92% of North American banks do not comply with 5% leverage ratio
- Example 3 – Surveyed Eurozone banks would need to increase their Tier 1 capital by 82% to comply with 5% minimum leverage ratio

<table>
<thead>
<tr>
<th>Risk-based capital shortfall</th>
<th>Scenarios on minimum leverage ratio(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Europe</td>
<td>83 11 100 43</td>
</tr>
<tr>
<td>Eurozone</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73 15 100 46</td>
</tr>
<tr>
<td>North America</td>
<td>23 1 62 8</td>
</tr>
<tr>
<td>Total</td>
<td>46 6 79 23</td>
</tr>
<tr>
<td>G-SIBs</td>
<td>44 6 72 22</td>
</tr>
</tbody>
</table>

1 On basis of latest Basel III leverage framework

SOURCE: Basel III leverage ratio survey
Based on core Tier 1 capital, the share of banks that do not meet the 3% leverage ratio increases from 46% to 58%

Question
- How sensitive are the results with respect to varying definitions of the capital measure?

Approach
- Leverage ratio calculated based on available
  - Fully-loaded Basel III Tier 1 capital
  - Core Tier 1 capital
- Accounting for bank-specific risk-based capital requirements to determine incremental capital shortfall and resulting deleveraging need

<table>
<thead>
<tr>
<th></th>
<th>Tier 1 capital</th>
<th>Core Tier 1 capital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Share of banks below 3% leverage ratio, Percent</td>
<td>Incremental deleveraging gap, Percent of today's leverage exposure</td>
</tr>
<tr>
<td>Europe</td>
<td>83</td>
<td>9</td>
</tr>
<tr>
<td>Eurozone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>73</td>
<td>12</td>
</tr>
<tr>
<td>North America</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>6</td>
</tr>
<tr>
<td>G-SIBs</td>
<td>44</td>
<td>6</td>
</tr>
</tbody>
</table>

SOURCE: Basel III leverage ratio survey
**Incremental costs from raising additional capital to meet the leverage-based capital requirement would represent 18% of net income 2012**

**Question**
- What would be the increase necessary in net income to cover cost of capital from incremental capital requirements from leverage ratio?

**Approach**
- Only leverage constrained banks included in calculation
- Effective cost of additional capital assumed at 8.1%, after debt reduction
- All calculations performed post tax

<table>
<thead>
<tr>
<th>Geography</th>
<th>Additional net income required</th>
<th>Additional increase to cover +1pp in cost of capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe Eurozone</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Total Europe</td>
<td>24</td>
<td>27</td>
</tr>
<tr>
<td>North America</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>G-SIBs</td>
<td>23</td>
<td>25</td>
</tr>
</tbody>
</table>

1. Relative to net income FY 2012 adjusted for DVA and one-off effects; Source: 10-K/annual reports, financial supplements, investor presentations
2. Assumes cost of equity of 11.5% and cost of debt of 4.8% with a tax shield of 30%, Source: BIS/MAG paper: “Macroeconomic impact assessment of OTC derivatives regulatory reforms" from August 2013

**SOURCE:** Basel III leverage ratio survey
## Leverage exposure breakdown

Average leverage exposure breakdown across banks, indexed to 100%

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On-balance sheet (B/S) exposures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-B/S items excl. liquid asset buffer, derivatives, and SFTs; incl. collateral</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Total liquid asset buffer</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Assets deducted in determining Basel III Tier 1 capital</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>55</td>
</tr>
<tr>
<td><strong>Derivative exposures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replacement cost</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Add-on amount</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Gross-up for derivatives collateral provided</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Gross notional credit derivatives sold</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>(Notional offsets and add-on deductions for written credit derivatives)</td>
<td>(28)</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal (On-B/S and Derivatives)</strong></td>
<td></td>
<td>72</td>
</tr>
<tr>
<td><strong>Securities financing transaction exposures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross securities financing transaction assets (with no recognition of acc. netting)</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Securities financing transaction counterparty exposure</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Agent transaction exposures</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Adjustment for sales accounting transactions (if any)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal (On-B/S, Derivatives and SFTs)</strong></td>
<td></td>
<td>86</td>
</tr>
<tr>
<td><strong>Off-B/S exposures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off-B/S exposures with 100% credit conversion factors</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Off-B/S exposures with 10% credit conversion factor</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total exposures</strong></td>
<td><strong>Total leverage exposure</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

**Source:** Basel III leverage ratio survey
A note on the approach for calculating the shortfall towards minimum leverage requirements

2 scenarios

Banks below minimum Tier 1 capital ratio

- Incremental capital shortfall towards minimum leverage ratio (after fulfilling risk-based capital requirement)
- Capital shortfall towards minimum risk-based requirement

Banks above minimum Tier 1 capital ratio

- Incremental capital shortfall towards minimum leverage ratio (not covered by available excess Tier 1)
- Capital shortfall towards minimum leverage ratio that is covered by available excess Tier 1 capital (i.e. above minimum risk-based ratio)

1 For simplification, only scenarios considered in which banks are constrained, i.e. minimum risk-based requirement smaller that leverage-based requirement

SOURCE: Basel III leverage ratio survey
Responding to the revised Basel III leverage framework

Results of the supplementary outside-in analysis

September 20, 2013
Survey analysis has been complemented by an outside-in analysis to cover in excess of 80% of total assets in each focus country.

<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>Total assets (domiciled banks) in bn USD</th>
<th>Coverage¹ in percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>Canada</td>
<td>3.475</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>US²</td>
<td>11.253</td>
<td>100²</td>
</tr>
<tr>
<td>Europe/Eurozone</td>
<td>France</td>
<td>9.945</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>7.365</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>Italy</td>
<td>3.961</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>2.896</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>Spain</td>
<td>4.676</td>
<td>88</td>
</tr>
<tr>
<td>Europe/Non-Eurozone</td>
<td>UK</td>
<td>10.050</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>1.950</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Switzerland</td>
<td>3.344</td>
<td>85</td>
</tr>
<tr>
<td>Asia</td>
<td>Japan</td>
<td>14.269</td>
<td>83</td>
</tr>
</tbody>
</table>

¹ Total coverage through bank survey and outside-in (extrapolation) data
² Covers only banks subject to supplementary leverage ratio, i.e. banks with assets > USD 250 billion

Source: SNL Financial
## Extrapolation methodology

### Selection of sample
- Analysis of market coverage from bank survey in each focus country
- Identification of additional banks to reach coverage > 80% based on share of total banking assets of banks domiciled in each market

### Determination of calculation approach
- **Banks covered by survey:** Use survey data
- **Banks not covered by survey:**
  - Use of external data from SNL Financial and Bankscope
  - Apply simplifying assumptions where needed (partially based on general results from bank survey)

### Calculation of Leverage Ratio impact
- Calculation of leverage ratio for all banks in sample
- Calculation of capital shortfall and deleveraging need due to leverage ratio on bank-by-bank basis (taking potential shortfall to reach minimum Tier 1 ratio into account)
- Aggregation of impact on country and regional level

*Source: Basel III leverage project team*
Despite using public data, the estimates seem within acceptable range around true values.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Deviation from actual value in percent¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-50</td>
</tr>
<tr>
<td>Leverage exposure</td>
<td></td>
</tr>
<tr>
<td>Tier 1 capital (Basel III fully loaded)</td>
<td></td>
</tr>
<tr>
<td>Leverage ratio</td>
<td></td>
</tr>
<tr>
<td>Basel III RWA</td>
<td></td>
</tr>
</tbody>
</table>

- Outliers on leverage ratio due to individual circumstances of 5 banks not adequately reflected in public data (3 on tier 1 capital, 2 on leverage exposure).
- One of these banks also accounts for outlier on RWA.
- These specific data issues are not expected to be relevant for any of the banks in the extrapolation sample.
- Excluding these 5 banks from the analysis would further improve results of backtesting.
- Analysis confirms that trends found in survey banks are also present in non-survey banks; the BIS might wish to conduct a wider QIS to confirm these estimates.

1 Actual values from template submitted, some deviations due to differences in date of financial statement and template submissions.

SOURCE: Basel III leverage project team
About 35% of G-SIBs and 30% of non G-SIBs fall short of the 3% leverage ratio¹

Share of banks by leverage ratio bucket in percent

<table>
<thead>
<tr>
<th>Leverage ratio</th>
<th>G-SIB</th>
<th>Non G-SIB</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2.5%</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>2.5-3.0%</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>3.0-3.5%</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>3.5-4.0%</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>&gt;4.0%</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

| Total number of banks | 27² | 65 |

<table>
<thead>
<tr>
<th>Assets in USD Trillion</th>
<th>G-SIB</th>
<th>Non G-SIB</th>
</tr>
</thead>
<tbody>
<tr>
<td>~35% of G-SIBs below 3.0% leverage ratio</td>
<td>$9.5 tn</td>
<td>$2.0 tn</td>
</tr>
<tr>
<td>~65% of G-SIBs above 3.0% leverage ratio</td>
<td>$9.3 tn</td>
<td>$3.0 tn</td>
</tr>
<tr>
<td>~70% of non G-SIBs below 3.0% leverage ratio</td>
<td>$7.2 tn</td>
<td>$3.7 tn</td>
</tr>
<tr>
<td>~70% of non G-SIBs above 3.0% leverage ratio</td>
<td>$6.0 tn</td>
<td>$3.8 tn</td>
</tr>
<tr>
<td>Total</td>
<td>$44.0 tn</td>
<td>$23.4 tn</td>
</tr>
</tbody>
</table>

¹ Calculated based on fully-loaded Basel III Tier 1 capital
² Excludes Bank of China (a G-SIB) as China not considered one of the focus markets for the purpose of this study

SOURCE: Basel III leverage project team
For ~50% of banks, the leverage ratio is the binding constraint, not risk-based capital.

**Question**
- For how many banks does the leverage ratio—rather than the risk-based capital ratio—set the minimum Tier 1 capital need?

**Approach**
- Comparison of minimum capital requirement under leverage vs. under risk-based capital framework
- Minimum risk-based Tier 1 capital takes specific G-SIB surcharges on individual bank level into account

**Banks where leverage ratio is defining minimum Tier 1 capital requirement**

<table>
<thead>
<tr>
<th>G-SIB</th>
<th>Non G-SIB</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 (44%)</td>
<td>37 (56%)</td>
</tr>
<tr>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>22 (81%)</td>
<td>51 (77%)</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>25 (93%)</td>
<td>58 (88%)</td>
</tr>
</tbody>
</table>

1 If a bank is primarily constrained by the leverage ratio, this does not necessarily mean that the bank does not comply with the leverage ratio. In particular, the bank might hold excess Tier 1 capital above the minimum required capital which reduces/compensates the additional capital requirement.

2 i.e., 8.5% plus G-SIB surcharge applied on individual bank level.

SOURCE: Basel III leverage project team
## Impact of increasing the leverage ratio

Share of banks in percent

<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>Minimum leverage requirement of 3%</th>
<th>Minimum leverage requirement of 4%</th>
<th>Minimum leverage requirement of 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>Canada</td>
<td>40% 80%</td>
<td>100% 100%</td>
<td>100% 100%</td>
</tr>
<tr>
<td></td>
<td>US1</td>
<td>9% 9%</td>
<td>27% 36%</td>
<td>64% 55%</td>
</tr>
<tr>
<td>Europe/Eurozone</td>
<td>France</td>
<td>60% 80%</td>
<td>100% 100%</td>
<td>100% 100%</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>40% 64%</td>
<td>68% 80%</td>
<td>80% 88%</td>
</tr>
<tr>
<td></td>
<td>Italy</td>
<td>10% 20%</td>
<td>50% 60%</td>
<td>60% 70%</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>50% 75%</td>
<td>75% 100%</td>
<td>100% 100%</td>
</tr>
<tr>
<td></td>
<td>Spain</td>
<td>50% 25%</td>
<td>75% 75%</td>
<td>100% 100%</td>
</tr>
<tr>
<td>Europe/Non-Eurozone</td>
<td>UK</td>
<td>50% 50%</td>
<td>83% 100%</td>
<td>100% 100%</td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>0% 100%</td>
<td>100% 100%</td>
<td>100% 100%</td>
</tr>
<tr>
<td></td>
<td>Switzerland</td>
<td>20% 60%</td>
<td>40% 100%</td>
<td>40% 100%</td>
</tr>
<tr>
<td>Asia</td>
<td>Japan</td>
<td>8% 58%</td>
<td>58% 67%</td>
<td>67% 92%</td>
</tr>
</tbody>
</table>

1 Covers only banks subject to supplementary leverage ratio, i.e. banks with assets > USD 250 billion
2 Calculated based on fully-loaded Basel III Tier 1 capital
3 Comparison of minimum Tier 1 capital requirements under leverage and risk-based frameworks (i.e. 8.5% plus individual G-SIB surcharge)

Source: Basel III leverage project team
The results suggest a need for capital increases of USD ~110 billion or deleveraging of USD ~3.600 billion

<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>Incremental capital shortfall towards minimum leverage ratio</th>
<th>Corresponding deleveraging</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>Canada</td>
<td>4.1</td>
<td>$5 bn</td>
</tr>
<tr>
<td></td>
<td>US¹</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Europe/Eurozone</td>
<td>France</td>
<td>5.7</td>
<td>$60 bn</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>&gt;10.0</td>
<td>&gt;10.0</td>
</tr>
<tr>
<td></td>
<td>Italy</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>4.3</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Spain</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Europe/Non-Eurozone</td>
<td>UK</td>
<td>5.4</td>
<td>$40 bn</td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Switzerland</td>
<td>&gt;10.0</td>
<td>&gt;10.0</td>
</tr>
<tr>
<td>Asia</td>
<td>Japan</td>
<td>0.6</td>
<td>$3 bn</td>
</tr>
</tbody>
</table>

**Note:**
1. Covers only banks subject to supplementary leverage ratio, i.e. banks with assets > USD 250 billion
2. Fully-loaded Basel III Tier 1 capital

Source: Basel III leverage project team
Outside-in assessment – Data used and methodology applied

<table>
<thead>
<tr>
<th>Leverage Exposure</th>
<th>Methodology/ Simplifying assumptions</th>
<th>Data used/limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>On B/S exposure</td>
<td>Total assets from accounting Balance Sheet</td>
<td>On balance sheet assets from SNL</td>
</tr>
<tr>
<td></td>
<td>Remove on-B/S derivative exposures</td>
<td>Limitation: On B/S exposures will include SFT assets (bond used for repos)</td>
</tr>
<tr>
<td></td>
<td>Remove items deducted from capital</td>
<td>On B/S values for derivatives from SNL</td>
</tr>
<tr>
<td>Derivatives</td>
<td>Derivative exposure estimated from relationship of on B/S derivative assets to leverage exposure for derivatives</td>
<td>Multiplier derived from internal data of sample banks</td>
</tr>
<tr>
<td></td>
<td>Multiplier differentiated depending on accounting standards (IFRS vs US GAAP)</td>
<td>Not separately identifiable in publicly available data</td>
</tr>
<tr>
<td>SFTs</td>
<td>N/A</td>
<td>B/S component of repos is captured in on B/S exposure</td>
</tr>
<tr>
<td>Off B/S exposure</td>
<td>All Off-B/S assets included at 100% CCF</td>
<td>Counterparty credit risk component considered negligible</td>
</tr>
</tbody>
</table>

Tier 1 Capital

- Estimate of Basel III fully loaded Tier 1:
  - Exclusion of hybrid Tier 1 capital
  - All deductions applied to core Tier 1
- Core tier 1 and deduction items from SNL for European Banks Tier 1 and deduction items from SNL for US, Canadian, and Japanese banks

RWA

- For non-US banks, RWA for CVA estimated using a 'multiplier' derived from survey data and based on relationship of derivative assets to CVA charge
- For US banks, Basel III RWA estimated using relationship of Basel I RWA to Basel III RWA for survey banks
- Current RWA from SNL
- On B/S replacement values for derivatives from SNL