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Basel Committee on Banking Supervision  
Bank for International Settlements  
Centralbahnplatz 2  
CH-4002 Basel  
Switzerland

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**Joint Associations' Submission re.:**

**Consultative Document: Basel III, the Net Stable Funding Ratio**

Dear Mmes. Mathérat and Wilkins,

The Institute of International Finance (“IIF”), the International Capital Market Association (“ICMA”), the International Swaps and Derivatives Association (“ISDA”), Global Financial Markets Association (“GFMA”), and The Clearing House (“TCH”) (collectively, “the Associations”) on behalf of their members welcome the opportunity to submit comments in the consultation on the above topic.<sup>1</sup> (Paragraph references herein are to the Consultative Document.)

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<sup>1</sup> See Annex 1 for more detailed description of each signatory association.

## I. Introduction

*Substantial progress.* The Associations appreciate the extensive review of the Net Stable Funding Ratio (“NSFR”) as originally proposed and the care taken by the Basel Committee on Banking Supervision Working Group on Liquidity (“BCBS WGL”) in preparing this version. The Associations recognize and endorse the goals of the NSFR of fostering better assessment of funding risks and promoting funding stability as set out in Paragraph 1 of the revised NSFR proposal.<sup>2</sup> While the Associations continue to have serious reservations about specified aspects of the proposal that should not obscure the fact that credit is given for a substantial accomplishment.

The Associations note in particular the overall more realistic and therefore beneficial and appropriate treatment of retail and SME business, the improved deposit criteria, including recognition of the role of operational deposits, the new value given to wholesale funding maturing between six and twelve months, and the more realistic recognition of the monetization value of certain loans and assets.

While the Associations understand and in general approve of the BCBS’s desire to keep the NSFR simple, nevertheless, the goal of simplicity should not sacrifice recognition of objective differences of liquidity characteristics of different types of transactions or embed additional conservatism. Recommendations have been made with simplicity in mind, and in many cases, have disregarded additional granularity that specialists would have preferred in designing a more risk-based NSFR.

*Need to carry through the structural approach.* The shift from a stressed measure to a more structural approach is analytically sound, although the Associations submit that the logic needs to be carried through more completely. A long-term ratio is much more appropriately analyzed on a business-as-usual or structural basis, in contrast to the acute stressed short-term conditions that the Liquidity Coverage Ratio (“LCR”) is aimed at. It seems axiomatic that the NSFR should not be more conservative than the LCR, yet the draft is in effect more conservative in various ways. If prudential considerations lead in the final NSFR to substantive deviations from a business-as-usual structural approach, they should be carefully explained in order to facilitate understanding, impact analysis and compliance.

The outcome of the NSFR should not be essentially a one-year LCR. If ASF factors are to be derived as a function of the percentage of current balances that are assumed to roll over, the NSFR should be calibrated so that such roll-over factors are appropriately calibrated according to the principles set out in Paragraph 13 and certainly no more severely than the LCR.

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<sup>2</sup> BCBS, *Basel III: The Net Stable Funding Ratio*, January 2014, Paragraph 1.

Although the proposed NSFR sets out discrete ASF and RSF factors, in most cases it is appropriate and necessary to consider the net term funding requirement arising from differences between ASF and RSF of closely associated products, rather than one factor or the other. It follows that many of the remedies to issues discussed in this submission could be addressed by consideration of one factor or the other, or the spread itself. Suggested adjustments are not intended to be exclusive of other ways to achieve the same result.

The Associations have conducted numerous conference calls and meetings to review the proposal and develop the comments below. This has involved a complex process of internal discussions and cross-industry consultation. It may be that further direct discussion of some points would be beneficial and both the Associations and their member firms would like to provide whatever additional help they can.

The following parts of the introduction summarize issues developed further in the detailed parts of this submission.

*Calibration of RSFs for HQLAs.* It is of concern that High Quality Liquid Asset (“HQLA”), mostly<sup>3</sup> as defined in the LCR, has been carried over for eligible liquid assets for the NSFR, given that the LCR is a 30-day acute stress test, whereas the NSFR is not underpinned by stressed conditions and has a 365-day horizon. This is not risk-based, and also inconsistent with the BCBS January 2014 paper on *Guidance for Supervisors on Market-Based Indicators of Liquidity*, which states at page 1 that, “*The liquidity value of an asset depends on the underlying stress scenario, the volume to be monetized and the timeframe considered.*”

HQLA purchased or reversed in to meet the LCR and the NSFR funding requirements in connection with products provided by banks in normal operations are themselves an *operational variable* related to needs such as, for example, to cover the portion of deposits that do not get term value past 30 or 365 days or to cover RSF requirements for undrawn committed facilities. In determining RSFs for HQLA used for such purposes, no consideration should be given to their possible holding periods, even if they are investments that will be kept on balance sheet for long periods of time or replaced as they mature. Subject to meeting the LCR requirements, the minimum tenor for funding HQLA (and their RSFs) should be driven only by their market liquidity.

*Not all Secured Financing Transactions are the same.* As discussed below, the current draft introduces inconsistencies between the ASF and RSF factors for certain products and counterparties.

For an NSFR aimed at the normal course of business (even with a prudential overlay), more account should be taken of the widespread and deep availability of reverse repo and repo funding

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<sup>3</sup> The concessions that were made relative to the LCR rules, for example, some ineligible LCR assets receiving an 85% not 100% RSF and the removal of Level 2 caps, are appreciated but not material for many members.

against high-quality collateral, the different types of counterparties involved and the uses made of such funding. Not all short-term wholesale funding and financing transactions carry the same liquidity risk.

As the Financial Stability Board (FSB) has observed, liquid securities financing markets are critical to the functioning of cash, bond, securitization and derivatives markets.<sup>4</sup> Liquid repo and securities lending markets provide banks and broker-dealers with the ability to quote two-way prices in cash markets (market-making) in reasonable size and without carrying inventory in every security (in itself a significant risk-management consideration), avoid settlement delivery failure, which can develop into chains; finance long positions and cover short positions effectively; and hedge against credit- or market-risk exposures arising from other business activities, such as participating in government bond auctions, corporate bond underwriting, and trading in cash instruments and derivatives. As will be discussed further, such transactions are also essential to enable carrying out customer-facing business on a sound and prudential basis and in some instances execute monetary policy.

Part of the NSFR's aim seems to be requiring longer-term stable funding for directional positions ("maturity mismatches") firms might take within the "matched book". Although that is a legitimate concern, it should not sweep up the many other related activities that are beneficial to markets and to society and yet create little or no funding or longer-term liquidity risk.

Importantly, many securities funding transactions (including reverse repos, for example) are in fact essentially self-funding, being perfectly matched to related transactions, for example, for purposes of covering firm and customer shorts; covering municipal deposits required to be collateralized in the U.S. market; supporting Exchange-Traded Fund ("ETF") issuances; or in relation to pre-funded repos; in all such cases, the reverse is taken off upon ending the short or other related transaction. One of banks' basic functions is to act as liquidity providers ("intermediaries") in secured funding markets, where collateral is of high quality, tenors are short, and counterparties are well-known, highly regulated firms.

On another topic, many securitizations are also self-funding, providing financing to the real economy and should not be troubling the NSFR analysis.

While the goal of discouraging inappropriate reliance on short-term wholesale funding is well-understood, the NSFR in its current format is insufficiently nuanced in that it does not make allowance for transactions such as reverse repos that have similar liquidity characteristics without actual funding outlays, where the counterparty is a non-bank and thus attracts the 50% RSF (as discussed in detail below).

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<sup>4</sup> See Financial Stability Board, *Securities Lending and Repos: Market Overview and Financial Stability Issues*, April 2012, [http://www.financialstabilityboard.org/publications/r\\_120427.pdf](http://www.financialstabilityboard.org/publications/r_120427.pdf).

To the extent that these types of transactions are forced to be financed longer term, it will radically change the economics of participation in government and other short-term markets. There is little market for funding over six months against many government bonds; the present 50% RSF for non-bank transactions would require USD or EUR 500 million of term funding of a tenor greater than 365 days to for every USD or EUR one billion of transaction. This clearly changes the attractiveness of doing low-risk and economically beneficial business. The result may well be substantial changes of business and pricing patterns where the requirement of term financing over six months imposes constraints, and a substantial reduction of market liquidity in affected markets.

Furthermore, the current draft seems to assume that all reverse repos constitute lending that would be subject to franchise or reputational risk<sup>5</sup> if not rolled over; however, this apparent assumption does not reflect actual liquidity and business conditions, where a very substantial proportion of securities financing transactions are in fact securities transactions without substantial franchise implications, especially transactions in Level 1 HQLA.

*Constructive role of secured funding.* A further general concern is the absence in the proposal in certain important aspects of appropriate differentiation between key drivers of banks' access to secured and unsecured funding. In more difficult market conditions, a bank may appropriately have to resort to maximizing forms of secured borrowing, such as covered bonds or securitization, if access to unsecured funding has been maximized more rapidly than in business-as-usual conditions. This implies three points, first that it is important to foster and maintain well-functioning and liquid secured debt markets, in order to accommodate issuance at times of impaired market conditions; second, to make sure that it is clear that the NSFR has the same flexibility to allow "use" of liquidity in times of stress as the LCR; and third, that ASFs for long-term secured funding rolling under 12 months may warrant higher ASF factors relative to unsecured funding. See the attached *Detailed Discussion II: SFTs (including Margin Lending)*.

*Constructive role of selective short-term wholesale funding.* For some types of assets, short-term funding is the most appropriate source, not only for funding a bank's own assets, but for clients to fund their assets. Investors often need and benefit from holding investments with short-term tenors to meet investment mandates or prudential objectives that require lower weighted-average maturities. Where banks own assets maturing in less than one year as market makers, a 0% or very low RSF would be reasonable. Issuance of Certificate of Deposit ("CD"), Commercial Paper ("CP"), Asset Backed Commercial Paper ("ABCP"), or other short-term obligations to fund HQLAs, money-market and interbank transactions, and certain types of secured funding transactions carry much less liquidity risk than short-term funding for illiquid assets.

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<sup>5</sup> Franchise risk means the concern that a bank may be at risk to its essential businesses if it is not able to continue to roll over transactions in order to continue business with important clients.

Need to acknowledge the NSFR impact on equities markets. The NSFR, as proposed, would cause a substantial change in the stable funding requirements for market makers in equities. These changes will not only affect the cash equities market but also the markets for related derivatives, including futures, forwards and options. The impact on the equities markets would be significant owing to the cumulative effect of several differences between the proposed rule and the industry's current management of the liquidity and funding risks inherent in the equity product and related business. Although the industry acknowledges the need to consider the funding risks of the business, the BCBS should consider carefully the extent of the implied changes in funding structures and thus in overall markets in which funding risks are managed resulting from the proposed NSFR rules (as well as those already mandated by the LCR).

In considering the impacts of the proposed NSFR and the LCR, many characteristics of the equities markets would need to be reconsidered by market participants. Among these are a) the assessment of the liquidity value of equities resulting from use of the calibration designed for the LCR, b), equities being held as a component of linked structures, c) the impact of an asymmetrical treatment of loans on stock loan borrow transactions covering short positions and finally, d) the proposed treatment of prime brokerage margin lending, which does not properly account for the liquidity value of collateral as well as legal and structural liquidity safeguards.

The potential impacts of the proposed NSFR on equities markets can be illustrated by referring to the market-making activity of banks in financial futures. Futures are an important risk management tool for pension funds. Banks making markets in futures use the underlying cash equity to hedge their exposure to remain delta or risk neutral. Under the current NSFR proposal, these hedges would require 50-85% stable funding, thus substantially increasing the cost for holding the hedge. These costs may have to be included in wider bid/offer-spreads in the futures product, impacting portfolio returns of institutional investors, for example, pension funds which costs ultimately will have to be borne by the individual retirees. The marketplace has developed operational mechanisms which mitigate funding risk and which may not have been fully considered when calibrating the NSFR for equities.

The attached Detailed Discussion explores alternatives for the treatment of widely traded index equities transactions within the NSFR. To summarize the proposals, the Associations propose that the BCBS should either give consideration to structural, legal and operational dynamics—and recognition that such highly liquid equity securities are predominately held by banks as hedges to client facing derivatives—or resolve the issue by simply adjusting the unencumbered RSF factors for the equity product to a meaningfully lower level.

Treatment of derivatives. The NSFR text calls for a general netting of derivatives payables and receivables pursuant to Paragraph 22(c), after carrying out “derivatives netting”. This is appropriate because, as all recognize, derivatives are managed and can only be fully understood, on a net basis; however, there are numerous specific issues that need to be clarified in the application of the simple and straightforward final netting of Paragraph 22(c). For the avoidance

of doubt and misunderstanding, it is important that the final text explain fully what is meant by “regulatory netting.” *Detailed Discussion IV: Derivative Issues* summarizes the industry’s understanding, but authoritative clarification is needed. As a part of the clarification of netting issues, it is highly important that the use of collateral be included appropriately.

The funding characteristics of derivatives are such that a pure balance-sheet approach will not yield appropriate results without some adjustments, as suggested in *Detailed Discussion IV*. In derivatives, cash flows are essential and it is highly important to capture their true liquidity characteristics that collateral given or taken be appropriately taken into account. Finally, the industry suggests revisiting the spread between the proposal’s 0% ASF and 100% RSF, to achieve a better reflection of the liquidity characteristics of derivatives transactions, even on a conservative basis.

The Associations and their members stand ready to consult with the BCBS WGL during the additional review of derivatives issues that is mentioned in Paragraph 22(c).

*Need to distinguish among sources and uses of wholesale funding.* While there are important improvements to applaud in the present version of the NSFR, the Associations must question a proposal that penalizes wholesale funding from clients and overlooks the objective distinction between volatile or unreliable sources of wholesale funding and more-reliable sources (such as relationship-based deposits from businesses larger than SMEs and self-funding transactions), and in some instances, the value that some forms of collateral provide in stabilizing funding access relative to unsecured funding.

The current NSFR would introduce significant inconsistencies with the LCR treatment of secured securities financing transactions. It is difficult to predict how these inconsistencies will manifest themselves in practice, but they create the danger of unnecessary inefficiencies that may harm all market participants and the markets themselves. At a basic level, why should perfectly matched repo and reverse repo transactions with high-quality collateral such as government bonds between two different well-rated counterparties not trigger a HQLA requirement in the LCR but create a need for over one-year term funding of 50% in the NSFR? Such term funding would need to be invested in liquid assets, most likely at negative carry that would in part or in whole be passed on to clients, increase the firm’s leverage ratio and displace funding capacity that could otherwise have been used for lending.

The incongruities introduced by some of the prudential overlays and the use of stressed LCR definitions are also disturbing because the NSFR should be viewed as a simple, direct funding liquidity metric that complements the LCR and other aspects of the accord (similarly to the leverage ratio in some respects). Introducing other policy objectives (which seem to apply to specific counterparties in a limited number of products and jurisdictions) through the NSFR

metric will create unintended challenges and complexities in what should be a simple, global liquidity measure to assure primary long-term liquidity goals.

It is understood that aspects of the prudential overlay reflect concerns about over-reliance on certain types of secured securities funding and lending transactions in certain markets. While these concerns have merit and need to be addressed, the present proposal is a very blunt solution that will have substantial effects on beneficial products and transactions and the overall liquidity of the market, including in jurisdictions where the underlying concerns may not be as material.

*Need to go behind the balance-sheet approach.* While the desire for simplicity is understood, the present draft bundles too many products and assigns the same ASFs and RSFs, taking the most conservative possible view of large suites of products, which distorts the overall NSFR effects of products with objectively more liquid characteristics. While granularity seems to run against simplicity, means must be found (and increasing granularity of RSFs and ASFs is an obvious one) to achieve the intended correct weighted average effect of the NSFR. It is especially true when such transactions are linked together.

Valid concerns about over-reliance on short-term funding transactions should be met by measures more surgically focused on such specific concerns and, if possible, dealt with outside of the NSFR. Other measures already addressing the same issues (leverage, margin, capital buffer requirements, etc.) should prove to be sufficient, given time to take full effect. From a structural liquidity point of view, it would be much better to find solutions that do not upset the logic of the NSFR and banks' long-term liquidity ecology.

*Summary of Recommendations.* This submission proposes changes in RSF factors, ASF factors or methodologies to assess the carrying amount to be calibrated.

In discussing this proposal with various members of the BCBS WGL, the Associations were consistently asked to make simple and specific recommendations that are aligned with the spirit of the BCBS's stated objectives with this metric. The Associations have aimed to make their recommendations as simple and specific as possible bearing in mind the following challenges:

- Many banking products are not simple, each having different levels of complexity;
- Limited transparency into the methodologies and assumptions used to set ASF and RSF; and
- The variety of business models, markets and circumstances applicable to different banks of BCBS member countries, which would, in a risk-based approach, warrant differences in factors.

Given these challenges, the Associations recommend, where appropriate, potential alternatives which, while directionally aligned relative to the current proposed ASF or RSF, offer different



potential outcomes depending on trade-offs between i) simplicity and accuracy and ii) prudence and economic growth.

***Recommended changes in ASF or RSF factors are summarized in the table below.***

The table below gives a synoptic summary that will facilitate relating the Associations' comments on the principal topics to the relevant paragraphs of the NSFR consultation paper.

Summary of Liability Categories and associated ASF factors			
ASF factor	Components of ASF category	Reference to Paragraph in the Associations' submission (including <i>Detailed Discussions</i> )	Reference to NSFR Paragraphs
100%	<ul style="list-style-type: none"> <li>Total regulatory capital</li> <li>Other capital instruments and liabilities with effective residual maturity of one year or more</li> </ul>	N/A	18 (a) 18 (b) 18 (c)
95%	<ul style="list-style-type: none"> <li>Stable non-maturity (demand) deposits and term deposits with residual maturity of less than one year provided by retail and SME customers</li> </ul>	N/A	19
90%	<ul style="list-style-type: none"> <li>Less stable non-maturity deposits and term deposits with residual maturity of less than one year provided by retail and SME customers</li> </ul>	N/A	20
50%	<ul style="list-style-type: none"> <li>Funding with residual maturity of less than one year provided <b>by non-financial corporate customers</b></li> <li><b>Operational deposits</b></li> <li>Funding with residual maturity of less than one year from sovereigns, public sector entities (PSEs), and multilateral and national development banks</li> <li>Other funding with residual maturity of not less than six months and less than one year not included in the above categories, <b>including funding provided by central banks and financial institutions</b></li> </ul>	Paragraphs 21 (a) and (b): Operational Deposits  Corporate deposits Paragraphs 21(a) and (d): secured vs. unsecured funding	21 (a) 21 (b) 21 (d)
0%	<ul style="list-style-type: none"> <li>All other liabilities and equity not included in above categories, <b>including liabilities without a stated maturity</b></li> <li><b>Derivatives payable net of derivatives receivable if payables are greater than receivables</b></li> </ul>	Inconsistency of ASF and RSF Factors: Interplay of Paragraphs 22(a, b), 29(c) and 32(e)  Paragraphs 22(c), 35(b) <i>Detailed Discussion IV: Derivatives issues</i>	22(a) 22(b) 22(c)

Summary of asset categories and associated RSF factors			
RSF factor	Components of RSF category	Reference to Paragraph in the Associations' submission (including <i>Detailed Discussions</i> )	Reference to Paragraph in NSFR
0%	<ul style="list-style-type: none"> <li>• Coins and banknotes</li> <li>• All central bank reserves</li> <li>• Unencumbered loans to banks subject to prudential supervision with residual maturities of less than six months</li> </ul>	<p>N/A</p> <p>N/A</p> <p>Inconsistency of ASF and RSF Factors: Interplay of Paragraphs 22(a, b), 29(c) and 32(e):N/A</p> <p><i>Detailed Discussion I: RSF Factors</i></p> <p><i>Detailed Discussion II: SFTs (including margin lending)</i></p>	29(c)
5%	<ul style="list-style-type: none"> <li>• Unencumbered Level 1 assets, excluding coins, banknotes and central bank reserves</li> </ul>	<i>Detailed Discussion I: RSF Factors</i>	30
15%	<ul style="list-style-type: none"> <li>• Unencumbered Level 2A assets</li> </ul>	<i>Detailed Discussion I: RSF Factors</i>	31
50%	<ul style="list-style-type: none"> <li>• <b>Unencumbered Level 2B assets</b></li> <li>• HQLA encumbered for a period of six months or more and less than one year</li> <li>• Loans to banks subject to prudential supervision with residual maturities six months or more and less than one year</li> <li>• Deposits held at other financial institutions for operational purposes</li> <li>• All other assets not included in the above categories with residual maturity of less than one year, including loans to non-bank financial institutions, loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs</li> </ul>	<p><i>Detailed Discussion I: RSF Factors</i></p> <p><i>Detailed Discussion III: Linked Transactions</i></p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>Inconsistency of ASF and RSF Factors: Interplay of Paragraphs 22(a, b), 29(c) and 32(e), <i>Detailed Discussion I: RSF Factors, Detailed Discussion III: Linked Transactions</i></p>	<p>32(a)</p> <p>32(e)</p>

Summary of asset categories and associated RSF factors			
RSF factor	Components of RSF category	Reference to Paragraph in the Associations' submission (including <i>Detailed Discussions</i> )	Reference to Paragraph in NSFR
65%	<ul style="list-style-type: none"> <li>• Unencumbered residential mortgages with a residual maturity of one year or more and with a risk weight of less than or equal to 35%</li> <li>• Other unencumbered loans not included in the above categories, excluding loans to financial institutions, with a residual maturity of one year or more and with a risk weight of less than or equal to 35% under the Standardized Approach</li> </ul>	<p>N/A</p> <p><i>Detailed Discussion I: RSF Factors</i></p> <p><i>Detailed Discussion III: Linked Transactions</i></p>	34(b)
85%	<ul style="list-style-type: none"> <li>• Other unencumbered performing loans with risk weights greater than 35% under the Standardized Approach and residual maturities of one year or more, excluding loans to financial institutions</li> <li>• Unencumbered securities that are not in default and do not qualify as HQLA including exchange-traded equities</li> <li>• Physical traded commodities, including gold</li> </ul>	<p>N/A</p> <p><i>Detailed Discussion I: RSF Factors</i></p> <p><i>Detailed Discussion III: Linked Transactions</i></p> <p>Paragraph 34(c): Gold Commodities other than Gold</p>	34(b)  34(c)
100%	<ul style="list-style-type: none"> <li>• All assets that are encumbered for a period of one year or more</li> <li>• Derivatives receivable net of derivatives payable if receivables are greater than payables</li> <li>• All other assets not included in the above categories, including non-performing loans, loans to financial institutions with a residual maturity of one year or more, non-exchange-traded equities, fixed assets, pension assets, intangibles, deferred tax assets, retained interest, insurance assets, subsidiary interests, and defaulted securities.</li> </ul>	<p>N/A</p> <p><i>Detailed Discussion IV: Derivatives Issues</i></p> <p>Paragraphs 22(b), 35 (c) Other payables and receivables:</p>	22(c) 35(b)  22(b) 35(c)

In making their recommendations, the Associations have assumed that the NSFR would be applied at the consolidated level in a banking group. As discussed below, it would be helpful for the BCBS to clarify that it is intended to apply at the consolidated level.

### **Concluding general remarks**

*Effect of increasing balance sheets.* This brings us to a broader point: as noted in *Detailed Discussions* at several points, the grossing up of balance sheets that will result from the current NSFR consultation runs contrary to general reform intent; will make management to the two liquidity ratios and the supplementary leverage ratio substantially harder; and may induce business-model changes that impede macroeconomic growth.

Substantial RSFs for many stable ordinary-business assets will likely have significant if not fully predictable consequences for overall funding costs and will create new capacity pressures on the global term debt market that cannot be fully appreciated.

The resulting additional buffer creates an investment problem, given the mismatch between the requirements and reasonable investment possibilities.

At a more macroeconomic level, the effects on markets of substantially increasing the demand for longer-term wholesale funding need to be taken into account. In particular it needs to be kept in mind that the original tenor of wholesale funding required will be well beyond two years, probably in the three-to-five year range at a minimum. This is because funding the NSFR gap with shorter or medium-term debt strategies quickly becomes inefficient because of balance-sheet expansion, and the likely need to hold more capital for leverage purposes, or, if not, to shrink balance sheets. The effects on global funding costs are difficult to predict but there would certainly be substantial new demand and probably capacity pressures that are difficult to predict at this stage but would likely have substantial effects on the cost of doing many types of lending business, which costs may inevitably have to be passed in part or in full to customers.

There is therefore concern that the proposed NSFR will have a substantial dampening effect on the liquidity of major short-term money markets and government bond markets, which is essential both for healthy interbank and money markets and for the efficient conduct of monetary policy. Importantly, many of the counterparties that banks finance in such transactions are the ultimate owners of government debt. See *the further discussion under Macroeconomic effects need consideration*, below.

*Need for clearly articulated rationale.* Some of the new prudential overlays on the structural approach need to be weighed for appropriateness and proportionality, especially when considered in the aggregate with the leverage ratio and other aspects of the Basel and national reforms. Many regulations and metrics are aimed at addressing the same concerns and the

market needs to understand the BCBS's analysis of how their effects are intended to integrate. Concerns are rising as to their impact on market liquidity and monetary policy.

For these and other reasons, especially to the extent the current version is finalized, the BCBS should articulate as clearly as possible the rationale and policy goals behind its requirements, to be sure both banks and the market more broadly understand its intended effects.

In particular, banks need to understand the assumptions behind the current NSFR ASF and RSF factors, both for purposes of communications internally, with customers, and with other stakeholders, including creditors, and to assist implementation in as consistent and effective a manner as possible.

It is also important to understand how the NSFR is intended to interact with other new regulatory requirements, in particular the supplementary leverage ratio and pending requirements for minimum amounts of long-term debt to facilitate resolution.

*Macroeconomic effects need consideration.* Before finalizing the NSFR, it will be important for the BCBS to consider the effects of the NSFR with the leverage ratio and other new requirements (including those that are driven by the G20 agenda and national measures in major markets) on the pricing and availability of short-term and money market products, especially those discussed in this submission. For example, the current version will encourage banks to leave money on deposit with central banks rather than buying or reversing in short-term debt of their governments (under 365 days). It may create incentives to use more long-term wholesale funding as opposed to deposit funding from relationship clients. It may cause banks to reduce participation in money markets. Future patterns may change and asymmetries may develop, for example if normal course central-bank deposit facilities are reduced or priced differently. The Quantitative Impact Study (QIS) on this proposal should be used to examine its effects on market liquidity (especially in money markets and equities markets), essential products, and monetary policy.

To emphasize the importance of this analysis, the Associations note that Gov. Carney has observed that “the combination of higher capital held against trading books, the new leverage ratio, and the proposed Volcker [and other] restrictions on propriety trading have already combined to reduce dealer inventories across a range of securities. With dealers less willing to deploy capital against large market moves, volatility has increased and liquidity fallen in the face of shocks such as the potential shift in U.S. monetary policy ....”<sup>6</sup> Such effects are likely to be accelerated and compounded if the NSFR is not revised from its present proposal.

Application of the NSFR as proposed to secured funding markets may substantially increase costs to dealers far in excess of prevailing market rates for secured funding. It is more than

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<sup>6</sup> *The UK at the heart of a renewed globalization*, October 2013 (Speech by Mark Carney, Governor of the Bank of England), <http://www.bankofengland.co.uk/publications/documents/speeches/2013/speech690.pdf>.

reasonable to anticipate that the substantial increases that are foreseeable would have consequences such as:

- The cost of reverse repo would increase with concomitant effects on cash markets for relevant securities;
- Firms would reduce activities to the minimum required to support their other businesses, also with concomitant market effects;
- Tiering of customers would occur as banks would in part manage costs by reserving transactions for the most significant customers; and
- Other participants not subject to the same regulatory requirements would enter the market to provide alternative funding sources to some extent (although the extent of the capacity of such other parties to do so is not clear).

Quantification of aggregate effects by private-sector parties has proved challenging, and competition-law constraints may inhibit consideration of likely pricing and business-model effects. GFMA and ICMA have analyses under way that are intended to evaluate such effects, as best can be done from a private-sector perspective given the limitations of data and legal constraints. They will be pleased to provide their analyses to the BCBS when they are sufficiently advanced.

The main message of the present submission about the market and macroeconomic effects of the NSFR as proposed is that such effects are likely to be highly significant, with the potential to change markets dramatically and permanently in ways that may be less than desirable from macroprudential and financial-stability points of view. The knock-on effects could well include increased public financing costs as the cost of providing liquidity to government bond markets is increased, and substantially decreased liquidity and depth of equities markets, leading to more volatility and less favorable market conditions for institutional and individual investors alike.

*Need to keep NSFR open for adjustment for market effects.* The QIS on this proposal should be used to examine carefully its effects on specific products, money market liquidity, and monetary policy. Beyond the QIS stage, however, the Associations strongly recommend that the BCBS plan to gather market-impact information and keep open the possibility to review and modify the NSFR in light of market impacts before full finalization in 2018. While it is understood that the G20 program is intended to be completed this year, and that the NSFR is an important component of that program, the NSFR remains a very new area for global standards and it would not compromise the “completion” of the NSFR to allow for future adjustments as more is learned during the QIS and the implementation period. These unknown impacts should also warrant caution in managing expectations for early implementation of NSFR that are sure to arise from some stakeholders.

*Disclosure of the NSFR.* The industry is interested in achieving market-useful and appropriate disclosures for the NSFR and would welcome the opportunity to comment in a consultation on disclosure in due course.

## **II. Specific Comments – Detailed Discussions**

For certain of the most complex issues raised by the current NSFR draft, detailed, focused discussions have been necessary (the “Detailed Discussions”).

Please see the attached Detailed Discussions on the following topics (which are introduced here briefly and which are integral and very important parts of this submission).

### **Detailed Discussion I: RSF Factors**

The NSFR aligns the definitions of most liquid assets (HQLA) and their RSF factors to the definition and haircuts of the LCR.<sup>7</sup> By including the LCR haircut structure, the NSFR includes the LCR stress-driven scenario, which is inconsistent with the NSFR as a structural measure of liquidity. As a result, adequate consideration is not given to the effects of the 12-month versus one-month time horizons for liquidation of assets under the two ratios and the severity of the stress under consideration in the LCR. The current draft is particularly conservative for Level 2B and non-HQLA assets, even though many of them have strong structural liquidity characteristics over a one-year horizon, especially in an environment that is not described as a stressed environment.

For example, the underlying assumption that 50%-85% of qualifying non-financial institution equities cannot be sold within one year is extreme for a metric seeking to strike a proper structural balance. Other examples would include senior tranches of many asset-backed securities (“ABS”), such as credit-card receivables, government-backed student loans, and multi-borrower commercial mortgage backed securities (“CMBS”), each of which would receive the 85% RSF per Paragraph 35(a).

All of these assets are highly liquid in normal (and even many stressed) market conditions over a one-year horizon, and therefore do not contribute significantly to the problems the NSFR is concerned about, and all contribute significantly to financing the real economy, an issue that is increasingly recognized in the E.U., U.S. and other countries. As *Detailed Discussion I: RSF Factors* argues, there are various more-tailored ways of addressing these issues.

With respect to unencumbered assets, *Detailed Discussion I* explains that certain of the proposed RSF factors imply funding and liquidity risks that differ meaningfully from the industry’s own economic assessments; moreover, the purposes for which and circumstances of holding of an asset have a very substantial effect on its liquidity. This is particularly important for equities,

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<sup>7</sup> NSFR, Paragraph 24, Footnote 8.

where the RSF factors do not reflect the way equities-related business is conducted or the actual liquidity characteristics of actively traded equities, which can be monetized under stressed conditions, and the price volatility of which is mitigated by standard operational and legal safeguards in the market.

To avoid disruption of well-functioning market structures, it is also important to distinguish between the holdings of unencumbered assets for different purposes. Securities purchased for use as market-risk hedges or for client-facing transactions have completely different liquidity and funding characteristics from securities purchased for investment. It is also vital to take cognizance of linked-transaction structures, as discussed in *Detailed Discussion III: Linked Transactions*.

Finally, the RSF factors for encumbered assets should be reconsidered. Although the general approach makes sense, encumbered assets have greater funding and liquidity value as they approach the end of their encumbrance, as the bank will be able to use them for other purposes when they become free of encumbrance.

In short, recognition that additional assets are reliably liquid over a one-year horizon is appropriate. In normal circumstances, the liquidity of HQLA and other market-liquid securities will be abundant, certainly compared to the stress assumed by the LCR; therefore, this normal and predictable liquidity should be recognized, regardless of holding periods or business strategies applied. This would be consistent with the principles of the NSFR per Paragraph 13(d).

### **Detailed Discussion II: Secured Financing Transactions (“SFTs”) (including Margin Lending).**

The NSFR has appropriately targeted undue maturity transformation, an important public policy goal; however, the means chosen are overly broad and will undermine a significant portion of market transactions that serve a variety of market, monetary policy, public finance, and other public goals without appreciably increasing the risks that the NSFR is intended to address.

*Detailed Discussion II: SFTs (including Margin Lending)* makes a number of recommendations to recognize the economics of basic, highly important market transactions, while preserving the essential goals of the NSFR. These include proposed adjustments to the way RSF factors are determined for reverse repos and similar secured lending transactions, margin lending and other forms of secured lending, to recognize the liquidity and funding assurances built into many such transactions; their limited franchise-risk implications and the liquidity benefits of many kinds of collateral.

The recommendations on SFTs and Margin Lending cover the need to provide additional recognition of the structural liquidity characteristics of a number of recognized types of highly liquid assets, in a manner appropriate for a going-concern metric. The Detailed Discussion also addresses the too-narrow focus on bank counterparties only and seeks confirmation of more



appropriate treatment for other counterparties that are important market participants. These recommendations are highly important to maintaining the liquidity of some of the world's most vital markets, while focusing the adjustments proposed on those types of transactions that do not raise serious concerns about excessive maturity transformation or franchise risk.

### **Detailed Discussion III: Linked Transactions**

Many transactions are self-funding and intended to be fully hedged from the liquidity perspective. Such transactions are executed in contemplation of one another, and would not be done without the corresponding transaction, to provide the hedge. Price risk ("MTM risk") is covered by variation margin and simultaneous unwinding of both sides of related transactions is assured by market structures and practices. Transactions are tightly-linked economically to hedging transactions. For example, a cash equities transaction and a derivative, and substantial initial margin requirements (typically 20-30% of the value of a transaction) give additional assurances. Market practice allows both transactions to be unwound simultaneously, without creating liquidity risk. The expiration of an agreement generally can be linked to the termination of the hedging transaction.

Linked transactions are thus fully covered by prudent hedging and market structures for market and liquidity risk. In effect, the maturity profile of the derivatives is transferred to the related transaction, for example in cash equities (because both sides terminate simultaneously). Similarly, in case of equity total return swaps, which constitute approximately 60% of package deals, derivatives mature in less than one month. At the maturity of such package deals, in many cases it is agreed with clients beforehand to ensure the monetization of the package deals by delaying unwinding the derivative transaction if there is a delay in unwinding cash equities.

Another example of this dynamic is linked shorts for clients. Banks borrow securities to cover client position; there is no asymmetry or mismatch to create liquidity risk as they collect and post collateral. Furthermore there are active markets in such transactions, yielding low franchise risk: there is no requirement to keep the borrowed securities on the books once related transactions are unwound, or to rollover transactions; there is no reason not to unwind if the client's transaction finishes. The same applies to covering firm shorts.

The Associations recognize the challenge of defining objective criteria for linked transactions that could be easily stated in the NSFR proposal and implemented consistently. *Detailed Discussion III: Linked Transaction* addresses this issue and recommends criteria such as legal, regulatory requirements, and markets rules that can be used to ensure simplicity, safety and consistency in the final NSFR requirements.

### **Detailed Discussion IV: Derivatives Issues**

Paragraphs 22(c) and 35(b) prescribe a specific netting of all derivatives transactions for NSFR purposes. Section 6.2.2 of the Instructions for Basel III Monitoring (2014) specifies that

regulatory netting should be used in arriving at the net payables or receivables to be netted off pursuant to 22(c) and 35(b). The intent and scope of “regulatory netting” is not clear and it is highly important that the final NSFR provide clarity as to what is intended. Furthermore, it is essential that collateral taken and given be given appropriate recognition in the netting of derivatives; given that collateral is an essential part of the cash flows generated by derivatives transactions, and hence essential to be taken into account in designing funding and liquidity rules for derivatives.

*Detailed Discussion IV: Derivatives Issues* does three things: (a) it explains the Associations’ understanding of what is meant by “derivatives netting” in the Basel documents, and asks for confirmation or clarification of that understanding for NSFR purposes; (b) it outlines a conservative way of looking at collateral given and taken in derivatives businesses for purposes of application of NSFR requirements; and (c) it suggest a review of the ASF/RSF spread proposed in the current NSFR draft, the current version of which appears well beyond firms’ experience, especially in normal times, even assuming a substantial prudential overlay should be applied.

### **III. Specific Comments not included in the Detailed Discussions.**

#### **A. Definition and minimum requirements**

**Paragraphs 11 and 13:** The NSFR is no longer described as an extended firm-specific crisis scenario, but as reflecting the “presumed degree of stability of liabilities and the liquidity of assets.”<sup>8</sup> Assumptions are not provided to support proposed ASF and RSF factors. Rather, ASF and RSF factors are apparently based on a view of what is needed to achieve the right structural balance between the stability of any bank’s assets and liabilities, with some prudential adjustments, irrespective of its financial strength and markets of operation. While this approach is simple, its simplicity is outweighed by its shortcomings in that it is not sufficiently differentiated as to types of assets and liabilities and business models, and is not risk-based.

The current calibration of ASF and RSF for a structural NSFR is hard to evaluate owing to the lack of information on assumptions and how factors were determined; as a result, as suggested in the introduction to this submission, it would be appropriate to have an objective macroprudential and market impact analysis of the reasons for the calibration, including definition and rationale of the “prudential” adjustments that seem to have been made to normal-course liquidity experience.

Furthermore, it is understood, per Paragraph 13(a), that the intent is to foster continuity of lending to the real economy by assuring stable funding; however, more discussion with the

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<sup>8</sup> NSFR, Paragraph 10.

industry is required to establish a clear normal-course scenario and to understand how any prudential adjustments to that scenario that are carried into the final NSFR will work. The treatment of reverse repos, for example and as discussed extensively herein, does not reflect normal-course business expectations, nor does the use of HQLA as defined for purposes of the LCR, based on acute stress scenarios. Similarly, some of the RSF and ASF factors seem to assume a good deal of stress.

Similarly, under Paragraph 13, franchise risk is an important consideration in determining the funding profile of products for which continued supply is important to protect client relationships and the provision of essential services; however, there should also be recognition that the higher funding costs that come from longer funding tenors may affect banks' strategic decisions as to which businesses to emphasize or downsize or discontinue.

**Paragraph 15:** The Associations understand that BCBS intends the NSFR to be applied at the consolidated level. However, the Associations would like to emphasize that application of the NSFR at either subsidiary level or branch level of a consolidated group might result in additional stable funding requirements beyond what has been estimated in QIS. Furthermore, numerous constraints on the intra-group management of liquidity would be added. Many firms fund operations of local subsidiaries in large part through intercompany borrowings, structured to account for local regulatory requirements while allowing for flexibility in funding arrangements. Bank branches are often funded through combination of local deposits and intra-branch borrowing but it is not legally possible to have capital or long-term borrowings attributed to such branches.

***Recommendation:*** The Associations recommend that the BCBS explicitly state its intention that the NSFR should be applied at one consolidated level in a banking group with presumption that application at subsidiary or branch level would not be required or expected absent compelling circumstances, which should be communicated promptly.

## **B. Definition and Calibration of ASF**

It is not apparent that the levels established take into account the predictable effects on lending or other business.

**Paragraph 17:** The current draft makes “**worst case**” assumptions for all liabilities with callable and puttable early repayment options, including those where the bank is long the option or the option is dependent on movements in prices of markets, rather than decisions by issuers or investors.

It will be very difficult for banks to demonstrate that they would not exercise an option under “any circumstances” (as required by Paragraph 17, emphasis added) when the NSFR is not underpinned by a specific scenario.

A more reasonable approach to this issue, better reflecting the rationale of the revised NSFR, would be to permit banks to take into account the exercise of such options based on *expected probability life*. Banks would need to demonstrate “expected probability life” to their supervisors, but a probability test would make this provision more useful.

***Recommendation:*** Thus, the second sentence of Paragraph 17 could be revised to read as follows;

**For funding with options exercisable at the bank’s discretion or dependent on market parameters, an expected maturity should be applied, taking into consideration the expected probability that the bank would not exercise the option at the earliest possible date, for market or reputational-risk reasons.**

**Paragraphs 21 (a) and (b): Operational Deposits.** The recognition of Operational Deposits in the NSFR is a welcome, positive development, and consistent with the rationale of the revised framework. Nevertheless, members are concerned that the prescribed 50% ASF factor is far too conservative for use in a structural measure of liquidity and is inconsistent with industry experience, even in the most difficult periods of the financial crisis. The BCBS’s *Principles of Sound Liquidity Risk Management*<sup>9</sup> defines a goal of recognizing and incentivizing more-stable and resilient sources of deposits. This suggests that there should be further emphasis placed on more stable sources of wholesale deposits, reflecting actual industry experience in a manner consistent with the approach adopted for retail and SME deposits.

The BCBS first established a separate “Operational Deposit” category in the LCR to recognize that certain wholesale deposits are “sticky,” even in times of severe stress. Operational Deposits that meet the criteria set out in the LCR are rightly recognized as stable funding despite the adverse LCR scenario. As recognized under the LCR, it is time-consuming and expensive for customers to move operational services, and accompanying Operational Deposits, from one bank to another. This is especially the case in a business-as-usual environment. It is therefore surprising that the NSFR would apply an outflow rate to Operational Deposits that is even more conservative than that of the LCR. Some business would of course be gained or lost during the business-as-usual year, but customer dependency means that such client changes would be incremental rather than sudden, and there is no objective reason to assume that the fundamental business stability of operational deposits is different under the LCR than the NSFR.

Operational Deposits are subject to stringent regulatory requirements, which have grown progressively more demanding over time. The LCR requires counting as operational deposits only balances from cash, clearing and custody operations where customers have a substantial dependency on the bank, stripping out any balances in excess of such requirements on a highly

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<sup>9</sup> See BCBS, *The Sound Principles for Sound Liquidity Risk Management and Supervision*, September 2008, <http://www.bis.org/publ/bcbs144.pdf>.

conservative basis. The LCR thus already takes a rigorous approach to making sure that only reliably sticky Operational Deposits are considered. While the specific criteria can of course be refined, the current approach has all the necessary elements. Indeed, the current treatment of operational deposits creates a category of funding that is extremely stable, whether assessed over a period of acute short-term stress, or over the longer-term horizon foreseen in the NSFR.

Not giving appropriate recognition to the value of operational deposits could force banks to increase the amount of their wholesale funding with maturities greater than one year. This is another instance where banks will be faced with the choice of increasing their balance sheets or changing their business models and pricing to reflect the cost of not being able to use such deposits efficiently. Moreover, the lack of appropriate recognition would increase the complexity of managing the Basel III Leverage Ratio.

***Recommendation: The ASF factor for operational deposits should be raised from 50% to 75%.***

This proposal would be consistent with the approach adopted for retail deposits, where the same stability factor is used for both the LCR and the NSFR. In view of the stringent requirements which currently apply to operational deposits, the Associations see no objective reason why such deposits should be singled out for particular, onerous treatment under the NSFR.

Any remaining concerns about operational deposits are likely to be supervisory issues arising from the need to be sure that qualification criteria are applied appropriately and consistently across jurisdictions. However, the need for assurance of compliance should not influence the calibration of NSFR ratios. Supervisors in any case will be examining operational deposit determinations for LCR purposes, from January 2015, and good supervisory practice, verifiable by peer review, can be refined if necessary.

**Corporate Deposits.** Experience of banks in different countries would similarly support better recognition of Corporate Deposits as a reliable source of funding in normal times (and many in fact saw inflows during the crisis).

The 50% ASF factor imposed by Paragraph 21(a) would increase banks' other wholesale funding dependence (because lending to corporate counterparties cannot be funded with deposits to the same extent).

Experience would therefore suggest substantially improved treatment for Corporate Deposits; however, to make the treatment very conservative and to preserve the distinction between Corporate Deposits and Operational Deposits, a 60% ASF could be considered. This would be consistent with the LCR run-off factor of 40% (which implies that 60% need not be assumed to flow out, even in the extreme scenario enshrined in the LCR).

***Recommendation:* A less-stressed but still prudent ASF of perhaps 60% for Corporate Deposits generally would be an appropriately conservative calibration.**

**Paragraphs 21(a) and (d): secured vs. unsecured funding.** Making no distinction between secured and unsecured funding fails to recognize the fact that some types of assets in secured funding transactions significantly contribute to banks' stable access to funding, even if the strength of the bank and market conditions were to deteriorate, which is not contemplated in the NSFR.

An extensive discussion of issues relevant to secured vs. unsecured funding is presented in *Detailed Discussion II: SFTs (including Margin Lending)* and *Detailed Discussion IV: Derivatives Issues*; however, this issue also affects other important areas of business that have implications for the health of the broader economy.

A good example would be **covered bonds**, which are regularly rolled over in deep and liquid markets that expect to provide such funding on a regular basis, certainly in NSFR conditions; another example would be **high quality securitizations**, which are typically self-liquidating and therefore intrinsically less exposed to refinancing risk. These points would not be limited to covered bonds and securitizations but should be available for any collateral that a bank can demonstrate to its supervisor as reliably contributing to its ability to continue to fund using such assets as collateral. Such securities are critically important to market liquidity and to the funding of many institutions, as well as providing tangible credit to the real economy. Investors typically have an ongoing appetite for the same type of risk and hence reinvest on a regular basis.

Regulation of all aspects of these markets has been greatly tightened in numerous ways, yet this does not seem to be taken account of for NSFR purposes.

***Recommendation:* Thus, there is a good case for improving the ASF values granted under Paragraph 21(d) for secured funding, perhaps to 75%, and in Paragraph 22 (a), perhaps to 25%.**

**Paragraph 22(a): Deposits from Central Banks.** It is agreed that banks should not rely on emergency funding from central banks, or expect emergency funding from central banks to roll over. However, where central banks act as market participants looking for institutions with which to place unsecured deposits as part of money-market management, it is unreasonable that the 0% ASF should be treated indiscriminately.

A 0% ASF for customer-type deposits from central banks would essentially remove incentives for banks to take such deposits, in turn raising barriers to the management of money supply by central banks.

***Recommendation:* The NSFR should differentiate between business-as-usual unsecured funding and emergency secured funding from central banks by setting a**

**50% ASF for deposits from central banks acting as market participants or in connection with money-supply management (which would be consistent with funding from sovereigns, PSEs and development banks).**

**Inconsistency of ASF and RSF Factors: Interplay of Paragraphs 22(a, b), 29(c) and 32(e).**

The net NSFR risk of liabilities and assets covered by the effect of these three paragraphs for certain products and counterparties is materially overstated.

There is, for example, a material asymmetry *between*:

- 1) The treatment of certain types of short-term secured funding (liability-ASF) and lending (assets-RSF) transactions for the same product, tenor and collateral, *and*
- 2) Short-term secured lending transactions (assets-RSF) used to cover liquid asset short positions (liabilities-ASF),

*unless* in both cases the asset is booked with a bank.

A material NSFR gap also arises for assets maturing within one year that represent obligations of non-bank financial institutions or other wholesale counterparties, including central banks and PSEs, which appears inappropriate in cases where there is no reputational or franchise risk in not rolling over loans or liquid assets as they mature (including loans to central bank not qualifying as liquidity reserves).

There should be no material differences in the NSFR risk profiles of these combinations of transactions across client types. The resulting NSFR gap should be nil or substantially smaller than the current gap of 50% in most cases. For example, a money market desk that buys short-term (e.g., three months or under) money market paper issued by a non-bank financial institution or other counterparty described by Paragraph 32(e) would have to fund 50% of such asset beyond one year by the effect of Paragraph 32(e).

This treatment, if intended, would clearly disrupt the short-term financing market for such paper, unnecessarily disrupt normal treasury cash management procedures for such clients, and affect negatively banks' ability to conduct normal transactions with non-bank clients.

Moreover, emerging market member firms have suggested that the current version of the NSFR may impede the development of local short-term markets that central banks have wanted to develop. The effects of the proposed RSFs on debt markets and the development of securitization markets in emerging market countries also need to be considered. Proposed RSFs for lower-rated debt and for securitizations may tend to burden the development of local markets and of international bank's willingness to take on such paper. As with other assets, a close study with a realistic assessment of funding and liquidity risks in normal conditions, and balancing that

analysis against the effects on markets (and on the development of new markets in such countries) should be undertaken before finalizing the NSFR.

Related issues and specific recommendations are discussed in much greater detail in *Detailed Discussion II: SFTs (including Margin Lending)*.

*A simple alternative.* The Associations provide a number of detailed and risk-based recommendations specific to SFTs in *Detailed Discussion II*. The following recommendation is supplemental to the *Detailed Discussion II*, but covers a broader range of instruments and is intended to make two suggestions in the alternative.

First, it could be used as a simple and encompassing alternative to concerns related to both SFTs and other short-term money market assets with short maturities for which franchise risk is not a consideration, should the BCBS WGL desire a less granular solution than as set out in the *Detailed Discussion II*.

Second, the language suggested below would assure that a broader range of instruments that economically should have improved the NSFR treatment but pose not franchise risk would also be given appropriate relief.

Thus, this language could – at the simplest option – be used alone, or a version of it could be combined with the recommendations made for the treatment of SFTs in the *Detailed Discussion II*.

***Recommendation: Extend the 0% RSF by amending Paragraph 29(c)*** as follows

29. Assets assigned a 0% RSF factor ... “(c) All unencumbered assets representing claims on banks subject to prudential supervision (including interbank placements; CDs; CP; bonds and other debt securities); (ii) all claims secured by securities (comprising all secured financing transactions including reverse repos and securities borrowings) on counterparties with which there is no contractual or reputational requirement to roll over the relevant asset, and (iii) all liquid assets consisting of claims on counterparties with which there is no contractual or reputational requirement to rollover the relevant asset, in each case, with residual maturities of less than six months. A bank would be required to demonstrate the absence of a reputational requirement for purposes of the foregoing to the satisfaction of its supervisor.

**Paragraphs 22(b), 35 (c): Other payables and receivables.** The Associations agree with the BCBS that focusing on the balance sheet is generally useful for the sake of simplicity. Using the balance sheet as a starting point provides a source of common understanding. However, differences in accounting regimes exist and should be considered as such, without entering into



the complexity of making adjustments for them if differences of outcome do not appear to be significant for NSFR purposes. This section addresses some relative details of accounting (putting aside derivatives netting issues, discussed primarily in *Detailed Discussion IV: Derivatives Issues*), but these points, although technical, may give rise to anomalous results, in part because accounting under certain circumstances may not be consistent with liquidity or funding concerns.

The treatment of the accounting categories of “other payables” and “other receivables” requires attention. One of the differences among accounting regimes is the choice given under IFRS to use accounting for securities at trade date or settlement date. This choice implies that items might not appear on the balance sheet at the end of the month in a way that accurately reflects liquidity issues:

**For banks on a settlement-date basis**

*Case 1: Purchase of \$100 securities on a trade date before the end of the month – Settlement after the end of the month*

**Unsettled transactions will be accounted for off-balance sheet until settlement.**

Therefore no items appear on the balance sheet for this transaction; this is appropriate from a liquidity point of view.

*Case 2: Sale of \$120 securities on a trade date before the end of the month – Settlement after the end of the month*

Debit	
Securities	120

Securities are still on the balance sheet.

For a bank which posts securities on the balance sheet at settlement date, securities sold will be counted as an asset until settlement with RSF factors depending on the type of securities.

The cash side is not reflected. Securities bought will not be on the balance sheet as they are unsettled. The cash obligation for future settlement is also off balance sheet but might be affected by the 5% RSF factor for irrevocable and conditionally revocable credit and liquidity commitments to any client (Paragraph 38, and table 3).

**For banks on a trade-date basis**

Case 1: *Purchase of \$100 securities on a trade date*

Debit		Credit	
Securities	100	Payable	100

Case 2: *Sale of \$120 securities on a trade date*

Debit	
Receivable	120

For a bank that posts securities on the balance sheet at trade date (which is optional under IFRS and mandatory under U.S. GAAP), cash due with respect to securities sold will be accounted for in “other receivables” with a 100% RSF factor. The securities sold will be off balance sheet, treated as sold. Securities bought will be accounted for in the securities portfolio from the trade date with an RSF factor depending on the type of securities. The cash obligations will appear in “other payables” with a 0% ASF.

The problem is that the asset side shows both securities sold and securities purchased (subject to delivery), not taking into account the portfolio effects in that one sale may have financed the purchased. The NSFR therefore requires, for banks on a trade-date basis, in effect double funding of many trading positions. There is a gross discrepancy between the effects of trade-date vs. settlement-date accounting.

***Recommendation:* The Associations therefore propose to net other payables and other receivables with a 100% RSF or 0% ASF factor for the net remaining (by analogy to Paragraph 22(c), which offers simple, if approximate solution).**

*Other liabilities.* Similar issues arise with other liabilities (from a balance-sheet point of view) that would be given a 0% ASF, such as failed trades, payables, accrued interest payable, fees to be received or to be paid, etc. where the liability corresponds to a pending transaction, which might be captured for NSFR purposes by the arbitrary effect of the cut-off of the accounting period.

Because of the normal course of the accrual accounting cycle associated with core business needs, firms consistently operate with a certain level of non-interest bearing liabilities. Although the liabilities will generally have payment schedules that are less than one year, the liability accrual is replenished for the next reporting-cycle. From a structural funding perspective, these non-interest liabilities generally grow over time as firms grow and do not rely on external parties to continue to provide funding. Non-financial related accrued expenses such as income tax

payable, employee salary and incentive compensation accruals, general accounts payable, accrued interest, accrued dividends, etc. should not receive a 0% factor as a result of the fact that they provide structurally stable funding. The other side of such transactions would constitute "other asset" which would be assigned a 100% RSF. This anomaly could be resolved simply by netting relevant items and applying the appropriate RSF or ASF factor to the net for each item (e.g. failed trades, accounts payable or receivable, accrued interest payable or receivable, etc.).

***Recommendation:* A way to approach all these issues might be to target a single approach which would allow netting of all other payables and receivables, category-by-category, recognizing the ability for other receivables to fund partially or completely other payables.**

**The rules would be as follows:**

- **netting of other receivables and other payables category by category;**
- **application of a 100% RSF factor if the net amount is an asset; and**
- **application of an ASF factor greater than zero (to be determined) category by category.**

*Deferred Tax Assets/Deferred Tax Liabilities.* Paragraphs 22 (b) and 35 (c) also refer to deferred tax liabilities and deferred tax assets respectively but unlike some of the "other liabilities" and "other assets" noted above, there are not significant accounting regime differences with respect to carrying value. Under both U.S. GAAP and IFRS, deferred tax assets and liabilities on the balance sheet already reflect offsetting to the extent they relate to taxes levied by the same taxation authority and offsetting is permitted by the relevant taxation authority. Thus our comments with respect to these items focus on their role in an institution's funding profile and their RSF and ASF factors.

Deferred tax assets and deferred tax liabilities are not typically associated with any of the potential risks of longer-term or core assets financed through short-term, potentially unstable funding. As noted, such assets and liabilities are reported at their net carrying values. In addition, the balance for such assets may reflect valuation changes from the initial acquisition or creation, and would not necessarily represent either an initial cash outlay or borrowing, or be indicative of a balance that a firm would expect to maintain in perpetuity. Thus, the current NSFR proposed RSF of 100% for deferred tax assets takes an approach which appears unnecessarily conservative.

***Recommendation:* With respect to ASF and RSF factors for deferred tax assets and liabilities, the Associations recommend a simplified approach that recognizes their role in an institution's overall funding profile. The net deferred tax asset would receive an RSF commensurate with their relatively modest contribution to the funding profile of the firm. With respect to a net deferred tax liability, the**

**Associations recommend such amount should receive a 100% ASF, which further simplifies the current NSFR proposal. The current NSFR proposal for deferred tax liabilities provides that deferred tax liabilities should be treated according to the nearest possible date on which such liabilities could be realized and these liabilities would then be assigned either a 100% ASF factor if the effective maturity is one year or greater, or 50% if the effective maturity is no less than six months and less than one year, or 0% if less than six months. The vast majority of institutions' deferred tax liabilities will be realized beyond one year. The Associations think that the scheduling exercise required by the proposal is unnecessarily burdensome, and the same result can be closely approximated by simply using a single ASF Factor of 100%.**

*Leases.* The current accounting treatment both under U.S. GAAP and IFRS separates lease contracts into two categories: (a) those that are considered financing leases, where the lessor no longer controls the asset, and (b) those that are considered operating leases, where the lessor keeps control of the asset. For financing leases, the lessor recognizes a loan in the balance sheet while for operating lease the lessor recognizes a property, plant and equipment item. The proposed treatment of operating leases is of concern because those operations would be treated under Paragraph 35(c) as fixed assets and would receive a 100% RSF factor.

Under the current Basel II framework, both categories are recognized as loans and as such risk weighted<sup>10</sup>.

***Recommendation:* The NSFR should recognize operating leases under Paragraphs 32(e), 34(a) or 35(c).**

That said, the BCBS should also keep open the possibility to review and modify the NSFR for leases in light of future developments in accounting rules for leases under both U.S. GAAP and IFRS before full finalization in 2018.

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<sup>10</sup>BCBS, *International Convergence of Capital Measurement and Capital Standards - A Revised Framework Comprehensive Version ("Basel II")*, June 2006, <http://www.bis.org/publ/bcbs128d.pdf>.

523. Leases other than those that expose the bank to residual value risk (see paragraph 524) will be accorded the same treatment as exposures collateralized by the same type of collateral. The minimum requirements for the collateral type must be met (CRE/RRE or other collateral). In addition, the bank must also meet the following standards:

- Robust risk management on the part of the lessor with respect to the location of the asset, the use to which it is put, its age, and planned obsolescence;
- A robust legal framework establishing the lessor's legal ownership of the asset and its ability to exercise its rights as owner in a timely fashion; and
- The difference between the rate of depreciation of the physical asset and the rate of amortization of the lease payments must not be so large as to overstate the CRM attributed to the leased assets.

524. Leases that expose the bank to residual value risk will be treated in the following manner. Residual value risk is the bank's exposure to potential loss due to the fair value of the equipment declining below its residual estimate at lease inception.

- The discounted lease payment stream will receive a risk weight appropriate for the lessee's financial strength (PD) and supervisory or own-estimate of LGD, whichever is appropriate.
- The residual value will be risk-weighted at 100%.

**Paragraphs 22(c), 35(b):**

*See Detailed Discussion IV: Derivatives Issues.*

**Paragraph 23: Clarification regarding Commercial Paper.**

The treatment of CP is unclear in the current draft. Does three-month CP issued by a bank and sold to a non-financial institution corporate counterparty require 50% RSF because it is “funding” from a non-financial institution or does it qualify as 0% RSF because it is ‘other liabilities’ maturing under six months?

If the former treatment is required, the criterion of “sold to a non-financial institution” creates a very substantial operational problem: it would be very difficult for a bank to demonstrate to its supervisor that a non-financial counterparty holds CP, given the active trading of CP in the secondary market.

***Recommendation.* Treatment of CP should be treated the same as “other liabilities” and should not be subject to infeasible operational requirements.**

**C. Definition and Calibration of RSFs**

*See Detailed Discussion I: RSF Factors.*

**Paragraphs 29-32:**

*See Detailed Discussion I: RSF Factors, Detailed Discussion II: SFTs (including Margin Lending), and Detailed Discussion III: Linked Transactions.*

**Possible alternative treatment for high-quality ABS and CMBS.**

The NSFR aligns the treatment of most assets, including RSF factors, with the treatment of assets in the LCR (subject to footnote 8 of Paragraph 24). While the Associations recognize the relative simplicity of this approach, the Associations believe that the use of the LCR parameters in the NSFR is inconsistent with a structural measure of liquidity. As a result, inadequate consideration is given to the effect of the twelve-month vs. one-month time horizons for the liquidation of assets under the two standards, and the particular severity of the LCR stress scenario.

The current penalizes certain non-HQLA assets, even though many of these assets have strong structural liquidity. This includes the senior tranches of many ABS such as credit card receivables, auto loans, government-backed student loans, and CMBS. Under the proposed NSFR, each of these assets classes is automatically assigned an RSF factor of 85%, which does

not reflect market experience, certainly in business-as-usual conditions. See *Detailed Discussion I: RSF Factors*.

ABS and CMBS are well-established financial products, used to facilitate access to consumer and commercial financing. Their importance in the promotion of funding to the real economy is recognized by, among others, senior policy makers in the EU, US and other national jurisdictions, who have called for policy measures to support high-quality securitization. Moreover, the international regulatory framework around ABS and CMBS has changed completely since the crisis and the minority types of transactions that were among the pre-crisis weaknesses of the system are not likely to be seen again.

ABS and CMBS are designed with a series of credit enhancements that enable the careful management of risk exposures. This includes the use of a “tranche” structure, characterized by a senior class of securities and one or more subordinated classes that assume the first loss position in the event of a loss. As a result, senior bond holders are protected from loss in ABS and CMBS, unless the loss exceeds the full amount of the subordinated tranches. There are often additional credit protections built into ABS and CMBS which further insulate senior bond holders. This includes reserve accounts and the collection of excess interest payments.

High-quality ABS and CMBS therefore have low and stable risk-weights. They also benefit from strong liquidity, with robust primary issuance and secondary market volumes, minimum transaction costs and broad investor acceptance. Most ABS and CMBS can therefore be monetized in the private market, either via secured funding or via outright sale, and therefore represent a stable source of structural liquidity over the one year NSFR horizon.

In short, the Associations believe that recognition of additional assets beyond those prescribed in the LCR that are reliably liquid in a structural measure of liquidity is required.

***Recommendation:*** The preferred solution would be to reconsider the RSF factors for liquid assets now covered by Paragraphs 29, 30, and 31 to reflect a more realistic assessment of market liquidity. This should be informed by a review of available industry data and the results of the QIS. With specific reference to securitizations, this could involve a more granular series of RSF factors for high-quality ABS and CMBS, based upon their standardized risk-weights; thus for example, high-quality ABS and CMBS should not be treated any more harshly under a structural measure of liquidity than corporate debt securities and other Level 2B assets.

**Paragraph 29(c): CCPs and financial market infrastructure.**

See *Detailed Discussion II: SFTs (including Margin Lending)*.

**Interplay of Paragraphs 29(c) and 32(e): Unequal treatment of equivalent loans and securities of banks.** Loans to banks maturing under six months receive a 0% RSF factor but

money market assets (Banker's Acceptances, CDs, CP) issued by banks receive a 50% RSF factor, although the latter are more liquid than the former.

The current NSFR proposal is very conservative for short-term money market instruments issued by non-bank financial institutions and held as assets on balance sheet. Although maturing within one year, they will need to be term-funded 50% over one year. No consideration is given to the fact that they can be monetized or secured funded per the criteria of Paragraph 25. Non-bank financial institution short-term liquid assets such as CP should get the same treatment as bank assets under six months, which is 0% RSF. The current proposed treatment would, of course, negatively affect the liquidity of the CP market.

This point is cumulative to the similar issues discussed in *Detailed Discussion III: Linked Transactions*.

***Recommendation:* With respect to loans to and comparable short-term securities of banks, Paragraph 29(c) should be revised to provide equal treatment with a 0% RSF; short-term money-market instruments of non-bank financial institutions should also receive a 0% RSF factor.**

**Paragraph 32(e): Reverse repo and SFT issues.**

See *Detailed Discussion II: SFTs (including Margin Lending)* and *Detailed Discussion III: Linked Transactions*.

**Paragraph 32(e): Loans to or deposits with central banks.**

It appears from Paragraph 32(e) that a term loan or deposit to a central bank is not eligible as HQLA<sup>11</sup> (and would not be counted as reserves), so instead of 0% for “all central bank reserves” under Paragraph 29(b), there would be a 50% RSF. This seems highly anomalous and unduly burdensome on banks’ interaction with central banks in the normal course, including in connection with monetary-policy operations.

***Recommendation:* Paragraph 29(b) should include term deposits with central banks.**

**Paragraph 32(e): Trade finance.**

The Associations are concerned that the wide scope of Paragraph 32(e) may have unintended consequences for short-term loans used to support international trade (this is in addition to issues related to off-balance-sheet commitments for trade-finance purposes, as discussed below). The

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<sup>11</sup> BCBS, *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*, January 2013, Paragraph 50(b) footnote 12, <http://www.bis.org/publ/bcbs238.pdf>.

50% RSF for on-balance-sheet trade finance lending is disproportionate and likely to have a negative effect on the pricing and availability of such lending. Trade finance lending is typically short-term, self-liquidating, and linked to underlying real-economy transactions, rather than representing primarily counterparty risk. A 90-day loan secured by goods shipped via trade documentation is intrinsically a low-risk transaction from a liquidity viewpoint. The nature of trade finance has also been appropriately recognized in other adjustments made to the Basel framework.<sup>12</sup>

Trade finance related lending typically maintains loan tenors between 30-180 days. By setting an RSF of 50% for these short-term assets the NSFR would be assuming the same term funding requirements and behavioral rollover assumptions as a corporate loan with initial tenor up to one year assumptions.

Trade finance lending is self-liquidating. There is no automatic rollover as loans are considered on a transactional basis. Trade finance lending is linked to an underlying shipment or trade in goods and services. The specific nature of the underlying trade transaction will mean that unlike lending driven entirely by relationships, such as unsecured working capital loans, trade finance will not require to be rolled over.

Trade finance lending is recognized as low risk with high recovery rates through possible sale of underlying goods.<sup>13</sup> By comparison, commercial loans offered on either an unsecured basis or secured on illiquid fixed assets have substantially different default profiles and funding requirements.

As explained above, owing to the short-term, self-liquidating, and low risk nature of these assets, it would be appropriate to consider an RSF factor in the range of 0-10% for any trade finance lending with residual maturity below six months. This change would maintain the stability of trade finance lending to the real economy as well as preserve the overall purpose of the NSFR as a business-as-usual liquidity risk management tool. A 15-25% RSF factor should be considered for those loans greater than six months and up to one year in tenor.

***Recommendation: An RSF factor in the range of 0-10% for trade-finance loans of less than six months' tenor and an RSF factor in the range of 15-25 % for trade finance loans greater than six months and up to one year would be appropriate, regardless of counterparty. This reflects the low risk, self-liquidating, short-term and discretionary nature of trade finance lending.***

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<sup>12</sup> LCR, Paragraph 138 and 140.

<sup>13</sup> The International Chamber of Commerce (ICC) reviewed a data set of 8,133,031 transactions between 2008 and 2011 and found an average default rate on import loans of 0.016%, export loans (bank risk) of 0.029% and export loans (corporate risk) of 0.021%: International Chamber of Commerce, *Global Risks Trade Finance Report 2013*, Paragraph 3.1, Figure 9



### **Paragraph 32(e): Implications for certain commercial-banking businesses.**

Certain members wish to emphasize the following specific issue for their businesses. While the intent of Paragraph 32(e) as it now stands is of course to require long-term funding for unencumbered loans maturing under one year, but are concerned that it will create cross-currents that will be difficult for banks to manage and perhaps cause unintended effects. Two types of effects can be foreseen:

- The abrupt transition to the NSFR would require sterilization in the entire banking sector of a substantial, permanent buffer of liquid assets that could thereafter *never* be used for real-economy lending, with the effect of compromising the real-economy lending the BCBS intends to foster, per Paragraphs 6 and 13(a), imposing incentives to deleveraging in the immediate term and a permanent cost burden on such lending for the future; and
- The resulting extra funding causes grossing-up of balance sheets, which would also have a substantial effect on banks' management of their leverage ratios.

The reasoning is as follows:

All unencumbered loans maturing within one year (excluding those to banks) require a 50% RSF per 32(e). At the same time, wholesale funding is only given a maximum 50% ASF if it has a maturity over six months, per (21(d)). This implies that loans maturing within six months have to be prefunded at 50% with funding maturing over six months.

*But* a bank cannot use this stable funding to support current lending. This is because stable funding will have to be allocated permanently to the proportion of loans that will mature in the coming six months.

- This permanent prefunding creates negative maturity transformation.
- As a result, the NSFR absorbs a part of otherwise available stable funding, making it permanently unavailable to support lending to the economy.
- Banks that are active in consumer finance (e.g. auto loans) or have a large commercial banking portfolios consisting of loans with one-to-three year tenors will often therefore de facto have to deleverage further as a result of the transition to the new NSFR, exacerbating the deleveraging already affecting some regional economies, or otherwise adjust their lending programs.
- Extra funding to meet the RSF for remaining lending activity must be balanced on the liabilities and assets sides, and the solution is likely to be to use the LCR-eligible securities to manage the leverage ratio issues.
- The cost of carrying this additional amount of funding will of course have to be factored into the pricing of lending.

The result appears to as an unintended consequence at the core of an intended consequence. There will clearly be an adjustment speed bump, which will affect all banks but somewhat

unevenly because of mix-of-business issues. Retail-oriented banks, especially in Europe, are particularly concerned. The changed economics of retail lending in particular are hard to evaluate at this time, and individual banks will have to make their own competitive judgments, but it seems likely that some will reduce affected businesses. Whether bank lending will remain competitive for relevant tranches of business (e.g. consumer lending, auto loans, etc.) will depend on local market circumstances, but it seems likely that some banks will curtail their activity and that in some cases non-regulated competitors may gain an advantage.

***Recommendation:*** The BCBS is therefore asked to reconsider the trade-offs implicit in the current RSF provision as part of the QIS exercise to determine whether the sought-after liquidity gains truly outweigh the impacts on lending discussed above.

**Paragraphs 32(a), 34(b): Equities.**

See *Detailed Discussions*, all of which include issues affecting equities.

**Paragraph 34(c): Gold.** It seems anomalous that gold now receives an 85% RSF factor vs. 50% in the 2010 draft. While gold is a much more important issue for some banks than for others, as a matter of principle it seems wrong not only to penalize but to increase the penalty on gold, given its generally recognized liquidity characteristics. While gold prices have recently been volatile, gold remains highly liquid (in various forms) and its volatility is believed generally to be countercyclical.

Appendix 1 (eighth bullet) of the NSFR proposal indicates that among the “key changes” to the NSFR are “*additional granularity and lower RSF factors for certain other non-HQLA*”, including “*physical traded commodities*”. Although gold is not specifically mentioned, it is hard to see why the RSF treatment of gold should have been made more stringent, whereas various other comparable RSF factors have been reduced.

***Recommendation:*** the factor for gold should be reconsidered.

**Commodities other than Gold.** Furthermore, an 85% RSF for commodities other than gold would be problematic in some countries, especially emerging markets. Commodities flows are financed with short-dated transactions, with some variations having to do with harvests and other seasonal variations. This may be a material issue for some banks and countries. Furthermore, it is emphasized that holdings of physical commodities are frequently linked to other transactions, such as derivative forward sales, which are typically short-dated.

***Recommendation:*** A lower RSF factor, for example 50%, would better reflect the short-dated nature of many commodities transactions and the inherent liquidity characteristics of these assets.

**Table 2: Summary of asset categories and associated RSF factors.** There is a need for clarification of what is meant by “*insurance assets*” in the last cell of this table, and if it is not to be understood from the capital point of view, how insurance liabilities would be treated.

**Table 3: Off-balance sheet exposures.** As discussed above for on-balance-sheet loans, by nature, off-balance sheet trade-finance transactions (letters of credit, guarantees etc.) are also short-term, self-liquidating and low-risk. Clients have no incentive to refinance such transaction on one-year basis but exposures naturally relate to much shorter periods, directly related to underlying real-market transactions.

Although Table 3 leaves the treatment of trade-finance exposures to national discretion, many members are concerned that if jurisdictions use their discretion to require different, or unduly high, RSFs for these products, it may impede credit creation by adding a large regulatory cost onto a low margin business. This would remove the incentives for banks to benefit from the maturity transformation of shorter term funding into self-liquidating products, harming trade growth.

***Recommendation:* From the broader viewpoint of achieving the G20 goals of consistent, global regulatory structures that encourage global trade and growth, defining a reasonable and realistic RSF for contingent trade-finance exposures would be preferable to leaving it to national discretion. A 0% RSF factor range would be appropriate considering the extensive data collected by the International Chamber of Commerce (ICC) Trade Finance Default Register on this topic.<sup>14</sup> Additionally, as the timing gap between a contingent product converting to an on-balance-sheet item or being settled through open account only requires short-term funding for the timing gap (typically one to three days), it would not require any stable funding in this regard.<sup>15</sup> Considering these factors, a commensurately low RSF would have the benefits of being realistic in liquidity-risk terms; better assuring a level playing field; and making the accord comprehensible from a business viewpoint.**

If the BCBS’s analysis is that national discretion is warranted by differences in national or regional experience, (a) it would be beneficial to international understanding and acceptance of the accord to have benefit of the BCBS’s analysis, and (b) guidance indicators for local regulators to use in setting applicable RSFs would be helpful (i.e. under what circumstances would a greater RSF than the relatively low RSF proposed above be warranted?).

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<sup>14</sup> The average tenor of short term trade finance products is 90 days and the average default rate against a data set of 8,133,031 transactions is 0.021%: International Chamber of Commerce; *Global Risks Trade Finance Report 2013*, Paragraph 3.1, Figure 9 and Para 3.2, Figure 15.

<sup>15</sup> For discussion regarding the low rate of on-balance sheet conversion of trade finance products, please see: International Chamber of Commerce, *Global Risks Trade Finance Report 2013*; Paragraph 3.3 and Figure 16.

## Conclusion

The Associations recognize the challenges of developing the NSFR and the implications of its implementation. They and their members hope that the recommendations and analytical approaches suggested in this submission will assist the BCBS WGL in working through the issues raised and the substantial economic and market implications of the current proposal. As stated in this submission, it would be very helpful to have a full explanation of the assumptions and scenarios behind the NSFR as it is finally issued, to assist firms' and the market's understanding of its intent and intended effects. The Associations and their members stand ready to provide any support and information that they can in the remainder of the process of developing the revised NSFR, especially as the Working Group continues its examination of derivatives issues. The Associations and their members share the BCBS's objectives in the development of efficient and effective, globally consistent regulation, aimed at the promotion of financial stability.

Very truly yours,



David Schraa  
Regulatory Counsel  
*The Institute of International Finance*



David Strongin  
Executive Director  
*Global Financial Markets Association*



Martin Scheck  
Chief Executive  
*the International Capital Market Association*



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Middle East and Africa  
*International Swaps and Derivatives  
Association, Inc.*

## **Annex 1: Descriptions of the signatory associations**

### **GFMA**

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, please visit <http://www.gfma.org>.

### **ICMA**

The International Capital Market Association (ICMA) represents a broad range of capital market interests including global investment banks and smaller regional banks, as well as asset managers, exchanges, central banks, law firms and other professional advisers. ICMA has around 450 members located in 53 countries worldwide. It is primarily a pan-European association, but with strong links and a number of members outside Europe. The European Repo Council (ERC) was established by the International Capital Market Association in December 1999, to represent the cross-border repo market in Europe. It is composed of the vast majority of practitioners in this market, who meet regularly to discuss market developments in order to ensure that practical day-to-day issues are fully understood and dealt with adequately. The twice yearly ICMA ERC General Meetings are widely attended. The ICMA ERC is committed to ensuring the establishment of a robust infrastructure to underpin the European repo market, including through the development of the Global Master Repurchase Agreement ("GMRA").

### **IIF**

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 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 480 members headquartered in more than 75 countries. For more information, please visit <http://www.iif.com>.

## TCH

Established in 1853, The Clearing House is the oldest banking association and payments company in the United States. It is owned by the world's largest commercial banks, which collectively hold more than half of all U.S. deposits. The Clearing House Association L.L.C. is a nonpartisan advocacy organization representing—through regulatory comment letters, amicus briefs and white papers—the interests of its owner banks on a variety of systemically important banking issues. Its affiliate, The Clearing House Payments Company L.L.C., provides payment, clearing, and settlement services to its member banks and other financial institutions, clearing almost \$2 trillion daily and representing nearly half of the automated-clearing-house, funds-transfer, and check-image payments made in the U.S. See The Clearing House's web page at [www.theclearinghouse.org](http://www.theclearinghouse.org).

## ***Detailed Discussions:***

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## *Detailed Discussion I: RSF Factors*

### **Introduction**

The NSFR aligns the definitions of most liquid assets (HQLA) and their RSF factors to the definition and haircuts of the LCR (subject to footnote 8 to Paragraph 24). By including the LCR haircut structure, the NSFR includes the LCR stress-driven scenario.

While the Associations recognize the appeal of simplicity, direct translation of LCR parameters into the NSFR is inconsistent with a structural measure of liquidity. As a result, adequate consideration is not given to the effects of the 12-month versus one-month time horizons for liquidation of assets under the two ratios and the severity of the stress under consideration in the LCR (regardless of any prudential adjustments in the NSFR).

The current draft is particularly conservative for Level 2B and non-HQLA assets, especially equities, even though many of them have strong structural liquidity characteristics, particularly in an environment that is not described as a stressed environment.

### **1. Calibration of RSFs for HQLA**

The current calibration of HQLAs has been described by some as a “compromise” between a 100% RSF for all HQLAs and less stringent RSFs than the LCR scenario due to the longer scenario period and reduced severity of the NSFR. Those that advocated a 100% RSF apparently took that view on the presumption that banks would have to hold HQLAs at all times, they should be term-funded for tenors longer than 365 days.

While the Associations recognize the concern, the Associations believe this current “compromise” is between two views of unequal merit. For purposes of analyzing the current proposed RSFs, it is important to see that a 100% RSF for all HQLAs would never have been a reasonable alternative because it would have created serious and counterproductive liquidity management challenges for some key banking products, and caused inconsistencies in the concurrent management of the NSFR and the LCR, with the LCR and the NSFR becoming at odds with, rather than complementing, each other. The Associations make this overall assessment taking into consideration that the BCBS did not carry over the Level 2 and 2B caps in the LCR to the NSFR proposal.<sup>16</sup>

For example, assume a bank has an overall deficit in ASF under the LCR of 100, perhaps as a result of funding that was issued with an initial term of greater than one year falling into the six-12 month tenor. The only realistic way to address this shortfall, that does not involve

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<sup>16</sup> While the industry is grateful for this adjustment, it is also important to recognize that this is only of value to those banks and jurisdictions in which these caps are currently constraining.



reducing assets (which may not be feasible or desirable), would be to: (1) issue additional funding with a term greater than one year; and (2) invest the proceeds in an asset that has an RSF factor lower than the ASF factor of the funding raised, thereby creating ASF capacity. If the bank were to invest in any asset that has at least some RSF requirements, it would need to increase its funding accordingly to address the initial shortfall and to address the shortfall for the “neutralizing asset” as illustrated in the table below:

	Neutralizing Asset	Initial ASF Deficit	Incremental RSF	New ASF Deficit	Total ASF	Total Funding Required	Total Funding as % of Initial ASF Requirement
<b>NSFR as Proposed</b>	Inter-bank loan/reverse repo	100	0%	0	100	100	100%
	Central Bank Deposit	100	0%	0	100	100	100%
	Purchase Level 1	100	5%	5	105	105	105%
	Purchase Level 2A	100	15%	18	118	118	118%
	Purchase Level 2B	100	50%	100	200	200	200%
	Reverse Repo HQLA (non-bank)	100	50%	100	200	200	200%
<b>NSFR with 100% HQLA</b>	Purchase HQLA	100	99%	9900	10000	10000	10000%
	Purchase Level 1	100	100%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

As noted in the table, any RSF requirement for any HQLA assets will increase the overall funding that a firm would need to raise to cure the deficit, which will increase a firm’s net interest expense, and such firm’s leverage ratio, and will result in a firm either increasing its balance sheet or reducing other assets to keep its balance sheet constant. Such requirements increase exponentially as the RSF requirements for HQLA increase, likely strongly incentivising firms to maintain assets in central bank deposits or, to the extent practical in light of credit risk, LCR or other constraints, in the form of interbank reverse repos or unsecured placements. A 99% RSF requirement would theoretically require a firm to raise 10,000 additional funding and a 100% RSF requirement for HQLA would literally be an unsolvable equation.

The BCBS should therefore consider a more reasonable “compromise”, that is, one more calibrated to a longer and non-stress scenario. This approach would lead to lower RSFs than the current proposal, especially for Level 2B HQLAs, and the inclusion of more HQLAs currently eligible for little or no liquidity value under one year.

In conclusion, RSFs of HQLAs should be calibrated based on their market liquidity, type and length of the scenario and availability, not their projected holding periods. The current NSFR “compromise” does not reflect a proper balance between these considerations. RSFs should be lowered to reflect the market liquidity of assets over 12 months in a non-stress environment, bearing in mind the different types of products that cause banks to have to hold HQLAs. The BCBS should also consider harmonizing the RSF factors within levels of HQLA so as not to unnecessarily distort firm’s investment decisions, leading to a concentration of holdings in a particular asset class.

**Recommendation:** It is difficult to propose revised RSFs for HQLAs that would be supported by detailed analysis when the current NSFR proposal provides no detailed explanations of the methodology that was used to arrive at current RSFs. However, at a minimum, the Associations believe that due consideration of the arguments made above should lead to at least a 50% reduction in related RSFs.<sup>17</sup>

## 2. RSF factors: Unencumbered assets

The NSFR assigns RSF factors to unencumbered assets based on LCR HQLA level status (e.g., unencumbered Level 1 assets receive a 5% RSF, unencumbered Level 2 assets receive a 15% RSF). The Associations have two specific comments on the NSFR's proposed treatment for unencumbered assets.

- a) In certain cases the RSF factors imply funding and liquidity risks that differ meaningfully from the industry's own economic assessment; and
  - b) The NSFR should contemplate the circumstance under which an asset is held, specifically where an asset is linked to other transactions.
- a. The Associations believe that in certain cases the RSF factors imply funding and liquidity risks that differ meaningfully from the industry's own economic assessment.

Most importantly, the Associations believe the RSF factors proposed for exchange-traded equities do not adequately reflect the liquidity value of the product. They are, in many cases, overly conservative and inconsistent with historical equities-market liquidity experience.

The Associations therefore re-submit the results of the industry study on "The Inclusion of Equities in the Liquidity Coverage Ratio"<sup>18</sup>, which remains relevant to the NSFR. The study examines the depth of cash and secured financing markets, as well as derivative and OTC markets that offer additional avenues for monetization of equity positions. An extensive survey of available data shows that major market equities (as defined in the following recommendation) can be easily monetized, even in periods of dislocation, offering additional liquidity value to firms outside of traditional central bank facility usage.

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<sup>17</sup> In the case of unencumbered Level 1 assets, the Associations believe reducing the RSF factor to 0% would be appropriate in recognition of the breadth and depth of the markets for these securities and as a means of being consistent with the treatment of these securities under the LCR. The LCR framework is based on a stress scenario whereas the NSFR market scenario is less severe. Thus the RSF factors should not be more stringent in the NSFR in comparison to the LCR. The RSF factor for Level 1 assets should be founded on their market liquidity, not their projected holding periods.

<sup>18</sup> See Annex 2 attached to *Detailed Discussions*.

Major market equities:

1. Can be reasonably monetized under stressed conditions;
  2. Exhibit positive characteristics of transparency, market structure, depth, performance in stressed liquidity conditions;
  3. Meet the most critical of the liquid asset attributes specified for many of Level 1 and Level 2A assets which require either a 5% or 15% stable funding<sup>19</sup>;
  4. Demonstrate resilience through sustained and vibrant secured funding markets as evident throughout the 2008/2009 stressed conditions;
  5. Continue to grow as an asset through varied, highly liquid and independent structures and markets; and
  6. Supported by several sources of secured funding, including: non-cash collateral stock borrow, collateral upgrades, equity repo, total return swaps, futures and listed options.
- b. There is a meaningful difference between the industry's own evaluation of liquidity risk in equities and that implied by the NSFR.

The Associations assume RSF factors as proposed incorporate both the risk of secured funding market dislocation and price volatility (the risk that sources of funding would be impacted through downward price pressure on assets).

Funding risk associated with price volatility in exchange-traded equities is largely mitigated by a number of operational and legal safeguards offered by the market:

1. Exchange-traded equities are highly liquid, even in times of stress. Banks can liquidate holdings in a very short amount of time, and are therefore not exposed to price volatility over extended periods of time.
2. To the extent that the bank is required to hold the security as part of structure or as a hedge:
  - a. the price volatility will be mitigated through other transactions in the structure, and liquidity risk will be met through daily variation margin;<sup>20</sup> and

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<sup>19</sup> NSFR, Paragraph 30, 31.

- b. the cash position can be liquidated and replaced synthetically with options, swaps, and/or futures.

While the Associations acknowledge that differences exist between the LCR and NSFR for equities (i.e., the NSFR excludes the cap on Level 2B unencumbered assets that is included in the LCR), the Associations do not believe these differences are sufficient to capture the different objectives of the two measures. As already stated in this submission, the LCR is a stressed liquidity measure whereas the NSFR is primarily a funding measure for business as usual, with some prudential overlay.

In summary, exchange-traded equities exhibit positive characteristics of transparency, market structure, depth, and proven performance in stressed liquidity conditions. In addition, equity secured funding markets have demonstrated resiliency, diversity, and growth. Directly aligning the LCR and the NSFR RSF factors produces too extreme a metric to strike the analytically correct structural balance in a non-stress environment.

***Recommendation: Equities composing main indices of major markets should receive an RSF factor of 15%. All other major market equities traded on an exchange, but not included in the main index, should receive an RSF factor of 50%. All other equities should receive an RSF factor of 85%. Where a bank holds such equities through an ETF that allows physical exchange for the underlying equity on demand, the bank should look through the ETF to determine the appropriate RSF. A lower RSF factor should apply where the bank demonstrates that an encumbered asset is held in a recognized linked transaction. See *Detailed Discussion III: Linked Transactions*.***

Further, the Associations note that different national regulators are interpreting the LCR Level 2B standard in different ways,<sup>21</sup> so if the NSFR incorporates an identical standard, banks in different jurisdictions will face different assumed funding costs of major index equities. Appendix 2 to this *Detailed Discussion* provides an illustrative list of equities qualifying under the definition of major market main index equities (such list would, of course, be expected to evolve over time).

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<sup>20</sup> See *Detailed Discussion III: Linked Transactions*, for more detail.

<sup>21</sup> The U.S. LCR proposed rules generally limit Level 2B equities to S&P 500 equities, but permit banking organizations to demonstrate the reliability of other equities to national supervisors for potential recognition as Level 2B assets. In Europe, by contrast, EBA recommendations would be applicable for EEA assets only and recommends considering common equity shares as HQLA in accordance with the requirements established in the LCR with no specific list of major indices. See U.S. LCR Proposed Rules § 20(c)(2)(i)(A); See LCR, Paragraph 54 (c); See EBA, *Report on appropriate uniform definitions of extremely high quality liquid assets (extremely HQLA) and high quality liquid assets (HQLA) and on operational requirements for liquid assets under Article 509(3) and (5) CRR*, Page 26, 27, available at <http://www.eba.europa.eu/documents/10180/16145/EBA+BS+2013+413+Report+on+definition+of+HQLA.pdf>.

- c. The Associations believe the NSFR should contemplate the circumstance under which an asset is held, specifically where an asset is linked to other transactions.

The Associations believe that the NSFR should distinguish among unencumbered assets that are used for different purposes. When a bank purchases a security and holds it in its long-term portfolio as an investment, the bank must finance the cost of the security and bear the associated market risk, which may impair the bank's ability to liquidate the security at a later point.

By contrast, when the bank purchases a security as a market-risk hedge to a client-facing transaction, it may hold the security only until the termination of the client-facing position. The client may have financed the bank's purchase of the security through initial margin, and the bank will generally have contractual rights to terminate the client-facing position at the same price as the sale price of the security held as a market-risk hedge. Unlike where the bank purchases a security to hold in its long-term portfolio, this latter scenario presents an entirely different funding requirement and liquidity risk profile.

***Recommendation:* Accordingly, the Associations believe that the NSFR should recognize a limited exception in which the RSF factor applicable to unencumbered assets may be reduced where the asset is held pursuant to a linked transaction, subject to specified criteria.**

The Associations have described these linked transaction scenarios in greater length in *Detailed Discussion III: Linked Transactions*.

### **3. RSF factors: Encumbered assets**

The NSFR assigns RSF factors to encumbered HQLA assets that reflect the remaining maturity of the encumbrance. Assets encumbered for one year or more would receive a 100% RSF factor, assets encumbered for six to twelve months would receive a 50% RSF factor, and assets in the final six months of encumbrance would receive an RSF factor equivalent to the unencumbered RSF factor of the asset.<sup>22</sup>

The Associations believe that this general approach makes sense. Encumbered assets have greater funding and liquidity value as they approach the end of their encumbrance, since the bank will be able to use the assets for other purposes on a near-term basis. By contrast, a bank must fund assets encumbered on a long-term basis without an ability to generate near-term funding or liquidity.

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<sup>22</sup> NSFR, Paragraph 27, 32(b), 35(a).

The Associations have two comments on the treatment of encumbered assets in the NSFR. First, since the treatment of encumbered assets in the final six months of encumbrance relies upon the RSF factors of unencumbered assets<sup>23</sup>, the Associations believe that the final NSFR should clarify that major index equities encumbered for six months or less would receive a 15% RSF factor, consistent with our recommendation above. Second, and also consistent with our recommendation above, the Associations believe that the NSFR should recognize a linked transaction exception.

***Recommendation:* All major index equities encumbered for six months or less should receive an RSF factor of 15%. A lower RSF factor should apply where the bank demonstrates that an encumbered asset is held in a recognized “linked” transaction.**

Further important issues concerning RSFs for encumbered assets are covered in *Detailed Discussion II: SFTs (including Margin Lending)*.

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<sup>23</sup> NSFR, Paragraph 27.

## Appendix 1: Calibration of RSFs for HQLA - Examples

As discussed under *1. Calibration of RSFs for HQLA*, the present proposed RSFs seem to be driven in part by a misleading sense that they are “compromises” away from a position focused on 100% RSFs. As discussed in the main text, a 100% RSF would never have been a workable position; hence RSFs should be built up from a reasonable, if conservative, analysis of the liquidity characteristics of assets and transactions. The following examples illustrate the point.

- Example 1: The liquidity risk of a deposit with a 100% outflow in LCR and 0% ASF in the NSFR can be neutralised in LCR by buying a Level 1 HQLA or doing a reverse repo underpinned by a Level 1 HQLA. However, in the NSFR, had the HQLA attracted a 100% RSF or should the reverse repo as currently proposed be conducted with a non-bank counterparty, a material NSFR shortfall would exist. Conversely, under the NSFR, an unsecured money market loan to a bank with a maturity of 1 day would neutralise the structural risk but it would not under LCR due to the 75% cap on inflows.
- Example 2: Where banks buy HQLAs to invest the portion of their retail deposits not getting term value past 30 or 365 days (e.g., 10% outflow), buying Level 1 assets (10% of the deposit) allows banks to mitigate their LCR risk and invest 90% of the deposit in illiquid assets. A RSF factor of 100% for HQLAs would have created a NSFR shortfall of 10% and required banks to raise additional term funding > 365 days to try to fix this shortfall. However it would have still been difficult to close this NSFR gap since banks could not have invested this new term funding in more HQLAs due to the 100% RSF. The only possible assets would have been those covered by Paragraph 29 (not 30 or beyond) assuming the 100% HQLA factor would not have been applied to Paragraph 29 assets (if so, note that credit concentration issues would have been a key concern).
- Example 3: Where a bank buys HQLAs to mitigate contingent risk (e.g. undrawn commitments), it is reasonable to debate the tenor of the funding that should underpin these HQLAs (e.g. greater than 30 days (the LCR) or 365 days (the NSFR)). But this desired tenor should not be achieved through RSF applied to HQLAs, rather through RSF applied to the categories of products to which HQLA requirements apply. For example, currently, a RSF of 5% of the notional amount of undrawn commitments requires HQLAs term funded past 365 days. The remaining HQLAs can be funded for terms past 30 days to conform with the LCR requirements. Applying a RSF factor of 100% to the HQLA supporting the 5% RSF for undrawn commitments would have resulted in ‘double mitigation’ of the same exposure.

**Appendix 2: Equities RSF Factors – Indicative list of typical major market, main indices:**

<b>Country or territory</b>	<b>Name of index</b>
Australia	All ordinaries, ASX 200, AS51
Austria	Austrian ATX Prime Index
Belgium	BEL 20
Canada	TSE 35, TSE 100, TSE 300
France	CAC 40, SBF 250
Germany	DAX, HDAX, CDAX
European	Dow Jones Stoxx 600 Index, FTSE Eurotop 300, MSCI Euro Index
Hong Kong	Hang Seng 33, HSCEI, HSCI
Italy	MIB 30
Japan	Nikkei 225, Nikkei 300, TOPIX
Korea	Kospi 50
Netherlands	AEX, AMX
Singapore	Straits Times Index
Spain	IBEX 35
Sweden	OMX
Switzerland	SMI, SPI
UK	FTSE 100, FTSE Mid 250, FTSE All Share
US	S&P 500, Dow Jones Industrial Average, NASDAQ Composite, Russell 2000



## *Detailed Discussion II: SFTs (including Margin Lending)*

### **Introduction**

The BCBS designed the NSFR to achieve a number of public policy purposes, including limiting banks' overreliance on short-term wholesale funding, encouraging banks to better assess funding risk across all on- and off-balance sheet items, and promoting funding stability within the banking sector.<sup>24</sup> The Associations support these important public policy goals, and an analysis of global banks' funding practices since the financial crisis demonstrates less reliance on short-term wholesale funding and a greater focus on long-term stable funding sources.<sup>25</sup>

The Associations also appreciate that the BCBS has designed the NSFR as a simple, easy-to-implement funding and liquidity metric that can be applied across a wide variety of banking models. The advantage of this approach is that it permits supervisory authorities (and, ultimately, the marketplace) to perform summary comparisons of the stability of different banks' funding sources and requirements, which might be more difficult if the NSFR included a large number of complicated, business line-specific exceptions to the general framework.

Recognizing the BCBS's policy goals and desire for simplicity, the Associations are recommending a limited number of modifications in the NSFR related to balance sheet assets and secured lending transactions that, the Associations believe, would more accurately capture banks' funding profiles and risks. In formulating these recommendations, the Associations have purposefully aimed to preserve a net overall asymmetry in RSF and ASF factors so that, irrespective of business model, all banks will be encouraged to rely on long-term stable funding sources for some types of SFTs. The Associations believe that the recommendations described below would result in modest revisions to the NSFR that would avoid potential market disruptions arising from a blunter approach that penalizes banks from engaging in market intermediary activities that are largely self-funding or otherwise pose low liquidity risk.

#### **1. Improving the complementary relationship between the NSFR and LCR**

Before providing technical recommendations on the NSFR, the Associations think it is important to frame how the NSFR could best complement and support the LCR.

The LCR, a stressed-based measure, is designed to ensure that a bank could survive a 30-day stress period. As a result, the LCR necessarily should impose more severe outflow assumptions, and more limited inflow assumptions, than the NSFR, a non-stressed measure that assesses funding and liquidity risk over a much longer time horizon. To complement

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<sup>24</sup> NSFR, Paragraph 1.

<sup>25</sup> See The Clearing House's report, *Assessing the Basel III Net Stable Funding Ratio in the Context of Recent Improvements in Longer-Term Bank Liquidity*, <https://www.theclearinghouse.org/publications/2013/basel-nsfr-study>.

and support each other, the calibration of the LCR and the NSFR should also be aligned with respect to their periods of measurement: a stressed-based measure that extends too deep in time may result in unrealistic requirements, while a non-stressed measure calibrated to arbitrary cut-off periods may result in cliff effects that do not correlate with observed funding and liquidity practices. Accordingly, where the NSFR incorporates time period based estimates of RSF and ASF, the Associations believe that the BCBS should recalibrate these measurement periods into five categories: (i) 0-1 month, (ii) 1-3 months, (iii) 3-6 months, (iv) 6-12 months and (v) one year and longer.

Refining the calibration of the NSFR in this manner is justified on two grounds. First, although the LCR is a stressed-based measure, the LCR still requires banks to calculate inflows over a 30-day period. The NSFR, by contrast, eliminates any ASF recognition in a number of categories in the 0-6 month period, including funding from bank and non-bank financial counterparties. Recalibrating the NSFR to five categories would allow for side-by-side comparisons of stressed and non-stressed funding over the same 30-day measurement period, leading to stronger prudential supervision.

Second, and more importantly, six months is an arbitrary dividing line for purposes of determining the reliability of bank funding. Imposing a sharp dividing line at six months, as opposed to the tiered approach the Associations recommend, would introduce sharp cliff effects into the NSFR that would not meaningfully reflect the stability of a bank's funding. To the extent the BCBS is concerned that banks will not be able to roll-over or extend financing in the final period before maturity, that concern would be adequately addressed by a 0-1 month category in which banks would receive little funding recognition and would be incentivized to establish longer-dated funding sources. By contrast, banks frequently negotiate the terms and conditions of long-term funding three or four months before the maturity of existing funding sources, and recognizing 1-3 months and 3-6 months funding categories, with the former category calibrated with lower RSF factors, would better capture the funding risks of existing arrangements that are approaching maturity.

## **2. Recommended revisions to the NSFR framework related to balance sheet assets and SFTs**

When formulating the NSFR, the BCBS assigned ASF factors “*based on the broad characteristics of the relative stability of an institution’s funding sources, including the contractual maturity of its liabilities and the differences in the propensity of different types of funding providers to withdraw their funding.*”<sup>26</sup> Similarly, the BCBS assigned RSF factors “*based on the broad characteristics of the liquidity risk profile of an institution’s assets and OBS exposures.*”<sup>27</sup> Broadly speaking, the Associations agree with these approaches, and

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<sup>26</sup> NSFR, Paragraph 16.

<sup>27</sup> NSFR, Paragraph 24.

support the BCBS’s efforts to tailor ASF and RSF assumptions based on observed funding behaviors.

When making determinations of relative funding stability and liquidity risk in order to assign ASF and RSF factors to specific assets or transaction categories, the Associations believe that the NSFR reflects the influence of three principles that the Associations also believe are critical to the appropriate calibration of any liquidity framework: collateral quality, counterparty identity and linked transactions. For example, the NSFR assigns different RSF factors to unencumbered assets based on the HQLA status of the assets (collateral quality); assigns different RSF factors to short-dated transactions with banks and non-bank financials (counterparty identity); and measures the ASF or RSF of derivatives by netting all derivatives payables and receivables (linked transactions). The Associations believe that these principles reflect sensible, “real-world” characteristics of funding markets, and that the final NSFR should reflect these principles more fully.

Comments by the Association as shown below are organized in accordance with these three principles. In each case, the Associations believe that their comments are consistent with the policy goals of the BCBS and would improve the accuracy and reliability of the NSFR as a liquidity risk metric.

**A. Principle 1: Collateral quality**

1. RSF factors: Secured lending / reverse repurchase transactions

The NSFR does not impose specific RSF and ASF factors on secured lending and reverse repurchase transactions (“SFTs”). Instead, the Associations understand that the BCBS’s intention is that these transactions would receive the same factors applicable to “loans” in the NSFR. Accordingly, the Associations understand that SFTs would receive the following RSF and ASF factors in the NSFR:

**Table [1a]: January 2014 NSFR: ASF / RSF factors for SFTs**

<b>Counterparty Type</b>	<b>Maturity</b>	<b>ASF for Repo / Borrowing</b>	<b>RSF for Reverse Repo / Loan</b>	<b>Citations</b>
Bank Counterparty	<6 months	0%	0%	ASF: 22(a) RSF: 29(c)
Non-bank Financial Counterparty	<6 months	0%	50%	ASF: 22(a) RSF: 32(e)
Non-financial corporates	<6 months	50%	50%	ASF: 21(a) RSF: 32(e)

As a preliminary matter, the Associations observe that SFTs have a very different funding and liquidity profile than other categories of lending transactions, and the above distinctions in ASF and RSF factors may not accurately capture the funding and liquidity characteristics of SFT markets.

When a bank lends money against an asset in an SFT, the bank has two sources of funding: (i) the repayment of the money at the maturity of the SFT and (ii) the use of the collateral during the term of the SFT. For example, a bank that lends €102 for six months against a €100 E.U. sovereign obligation will receive €102 after six months, but it can also use the €100 E.U. sovereign obligation to generate financing in the meantime, either through an offsetting SFT in which the bank borrows money or by using the sovereign obligation as collateral in a different transaction, thereby eliminating the need for the bank otherwise to separately source and fund collateral. In addition, the bank's margin arrangement generally would require additional margin to be posted if the value of the collateral decreases.

Irrespective of how a bank utilizes collateral received through an SFT, the funding and liquidity profile of a bank lending money through an SFT is clearly more robust than unsecured lending, which receives the same 50% RSF factor in the case of transactions with non-bank financials with less than six months' maturity.

Accordingly, consistent with the BCBS's guiding principles of accurately reflecting the board characteristics of funding sources and liquidity risk profiles, the Associations believe that the final NSFR should impose RSF factors for SFTs that reflect the collateral quality being pledged against the lending transaction.

In making this recommendation, the Associations are cognizant of the BCBS's desire to maintain a net overall asymmetry of RSF and ASF factors to encourage prudent long-term funding as well as the BCBS's desire to avoid solutions that are overly complicated or would be difficult to monitor. Accordingly, assuming our understanding of the BCBS's intended treatment of SFT is accurately captured in [Table \[1a\]](#), the Associations recommend that the final NSFR reflect collateral quality in SFT lending transactions only in the case of transactions with non-bank financial counterparties where the residual maturity is six months or less.

For this category of transactions, the Associations have two technical recommendations:

- SFTs secured by Level 1 assets should receive a 0% RSF factor, reflecting the reliability of this category of transactions during the financial crisis and the importance of protecting deep, liquid markets in high-quality sovereign instruments. Although the Associations otherwise accept the proposed 5% RSF factor that applies to unencumbered Level 1 assets, the Associations believe that a

0% RSF factor is appropriate in this case in light of the reliability of this category of transactions during the financial crisis, structural protections built into the documentation of SFTs, the bank's two sources of funding and the fact that the bank's counterparty is financing the Level 1 asset and not the bank's balance sheet, and that the counterparty looks to the quality of the Level 1 asset rather than the bank. All of these aspects should address franchise concerns and the importance of protecting deep, liquid markets in high-quality sovereign instruments.

- SFTs secured by non-Level 1 assets would receive an RSF factor based on this formula: 50% (the RSF factor for unsecured lending generally) multiplied by the RSF factor that would apply to the underlying collateral as if it were an unencumbered asset of the bank, but only if the bank has the legal right to use the collateral during the term of the SFT.

By way of illustration, an SFT lending transaction secured by Level 2A collateral would receive an RSF factor of 7.5% (i.e., 50% x 15%), whereas an SFT lending transaction secured by Level 2B collateral would receive an RSF factor of 25% (i.e., 50% x 50%). As summarized above, the Associations believe that this treatment is appropriate because it would capture the two funding sources available to a bank during the SFT: (i) the ultimate return of the cash and (ii) the use of the collateral in the interim period to generate funding. In addition, this treatment would preserve the net overall asymmetry in SFTs with non-bank financials, since the ASF factor for a bank's SFT borrowing transactions would remain 0%. Finally, this approach would be simple, intuitive and easy to implement and monitor.

If the BCBS accepted this proposal, the ASF and RSF factors for SFTs would be assigned as reflected in [Table \[1\(b\)\]](#).

**Table [1b]: Recommended ASF / RSF factors for SFTs**

<b>Counterparty Type</b>	<b>Maturity</b>	<b>ASF for Repo / Borrowing</b>	<b>RSF for Reverse Repo / Loan</b>
Bank Counterparty	<6 months	0%	0%
Non-bank Financial Counterparty	<6 months	0%	<ul style="list-style-type: none"> <li>• 0% (Level 1 assets)</li> <li>• 50% x Unencumbered asset RSF% (non-Level 1 assets)</li> </ul>
Non-financial corporates	<6 months	50%	50%

Finally, as with unencumbered and encumbered assets, the Associations believe that there are certain categories of linked transactions where the NSFR should apply more tailored assumptions in light of specific funding characteristics and liquidity risk safeguards, as discussed further in *Detailed Discussion III: Linked Transactions*.

***Recommendation:* The RSF factor for SFTs with non-bank financial counterparties with maturities of six months or less should be 0% for SFTs secured by Level 1 assets and, in the case of SFTs secured by non-Level 1 assets, 50% x the RSF factor that would apply to the asset if it were held by the bank as an unencumbered asset, but only if the bank has the legal right to use the pledged asset during the SFT. In addition, for SFTs with any counterparty, different ASF and RSF factors should apply in the case of linked transactions.**

2. RSF factors: Margin lending

The Associations understand that the NSFR, while calibrated to encourage prudent funding management, is also focused on a business-as-usual market environment. In principle, margin lending transactions in such business-as-usual market environments should have RSF requirements approaching zero. Because margin loans are heavily over-collateralized, the bank extending the margin loan has a pool of securities to use for funding purposes or other permissible activities. For example, where a bank extends €100 through a margin loan, the bank may receive in return €140 of equity securities, which could then be used in repurchase transactions (to fund the original margin loan to the client) or use in firm or client short transactions (thereby eliminating the need to purchase or borrow such securities, reducing funding requirements). Although there is a theoretical funding gap risk if the bank extends margin loans but is unable to use clients' securities in repurchase transactions to finance the margin loans (perhaps, for instance, because of a sudden collapse of equity prices in a market disturbance), this extreme outcome would only occur in highly volatile market conditions. Accordingly, to the extent that the NSFR is intended to capture a business-as-usual funding environment, the Associations believe that it needs to include a more tailored treatment for margin lending transactions.

In addition, the Associations note that, under the NSFR, margin loans would receive the same treatment as uncollateralized extensions of credit. The Associations believe that applying the same RSF factor to both categories of loans, without recognizing offsets for margin loans, fundamentally distorts the funding and risk profiles of these two categories of transactions. In particular, the Associations believe that the final NSFR should reflect:

- (a) the fact that margin loans are always over-collateralized;
- (b) the specific collateral quality of the collateral posted by the margin loan borrower;
- (c) the fact that margin loans are extended against a portfolio of securities, taking into account the client's entire portfolio of long and short positions, rather than a single extension of credit against a single security;
- (d) the ability of the bank to use margin loan collateral to meet other requirements of the bank, such as using securities to cover firm or client shorts, thereby relieving the bank from the need to enter into other transactions to obtain securities;
- (e) the extensive regulation of margin lending transactions, which, among other areas, ensures that margin loans are always fully collateralized; and
- (f) the extensive system of stress tests on margin lending portfolios that prudential regulators have been conducting since the financial crisis.

Further, it is important to note that the funding characteristics of margin loans are strongly influenced by client behavior, and that market neutrality clauses and more general economic forces strongly incentivize clients to unwind their margin loans in an orderly manner, permitting the bank in turn to unwind its related funding in a similarly orderly manner. A change at any point in the client's market position may result in greater collateral requirements for the loan.

As a practical matter, clients generally eliminate short and long positions simultaneously so that, as the short positions are reduced, the client is not forced to post additional collateral to secure the margin loan. In addition, in a crisis scenario, clients would be strongly incentivized to reduce their margin loans, since they would be reducing the long positions funded by margin loans. As clients reduce their long positions and repay the loans, the bank is able to simultaneously unwind the funding transactions that support the margin lending. Therefore, the business-as-usual funding profile of margin lending is not significantly disrupted in a crisis, since the bank's funding needs will likely drop in an orderly manner as clients reduce their long exposures.

Finally, the Associations note that banks' prime brokerage business has been subject to multiple liquidity risk reviews by prudential regulators resulting in the development of analytical frameworks for detecting (and reserving against) nuanced client behavior to which banks may be vulnerable. These frameworks are sensitive to changes in client concentration, as well as to changes in the amount of unutilized

internalization capacity. Performing such analyses requires the development of detailed sources and uses reporting for both cash and Synthetic Prime Brokerage (as defined in *Detailed Discussion III: Linked Transactions*). The impact of these additional stressed outflows is already reflected in the banks required liquidity buffer requirements and is transparent to the users of banks' internal MIS.

Accordingly, the Associations believe that the NSFR should capture margin loans in two ways. First, as with SFTs, the NSFR should assign an RSF factor to margin loans equal to the product of 50% (the RSF factor for unsecured loans) and the RSF factor that would apply to the collateral received by the bank as if it were unencumbered, assuming that the bank has the right to use the collateral. Second, the NSFR should assign an ASF to funding generated through the use of customer collateral, but this ASF should not be permitted to exceed the original RSF factor for the margin loan, ensuring that a bank will never be able to generate "excess" funding beyond the amount required by the original margin loan.

By way of illustration, the Associations earlier described a margin loan in which the bank lent €100 against €40 of equity securities. In the recommended approach, the bank would have an RSF of €25 on the margin loan ( $50\% \times 50\% \times €100$ ).<sup>28</sup> Even though the bank has received €40 of equity securities in value, the bank would, at most, be able to recognize an ASF of €25, even though in reality the bank would likely be able to generate funding well in excess of €25 by using the equities in offsetting funding transactions. In this way, the NSFR would reflect a basic conservatism in its funding assumptions, since the bank would be unable to claim the entire amount of offsetting "matched book" funding.

In formulating this proposal, the Associations recognize that the collateral pledged to the bank on the margin loan is reflected, in part, in both the RSF on the loan and in the ASF in the offsetting funding transaction. The Associations believe this is the appropriate treatment. When the bank lends money against collateral, possessing the collateral provides a potential liquidity resource to the bank; hence a lower RSF factor should apply. This collateral, however, remains only a potential funding source until such time as the bank actually uses the collateral to generate funding.

Accordingly, for margin loans, the Associations believe that the NSFR should both recognize the value of collateral received in the RSF but also recognize an ASF benefit only where the collateral is used to generate actual funding for the bank. This approach would balance conservatism with accuracy, while continuing to incentivize banks to fund themselves prudently in light of the overall cap on ASF recognition.

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<sup>28</sup> If an 85% RSF factor applied to the equities in this example, the RSF on the €100 loan would be €47.5 ( $50\% \times 85\% \times €100$ ).



***Recommendation:*** The RSF for margin loans should equal the product of 50% and the RSF factor that would apply to the collateral pledged by the borrower if the bank held the collateral as unencumbered assets. In addition, the bank should be permitted to utilize the collateral pledged by the borrower to generate ASF, but ASF recognition would be capped at the value of the RSF.

3. RSF factors: Other forms of secured lending

The Associations have proposed an RSF methodology for SFTs that is simple to implement, sensitive to the underlying collateral quality that secures the transactions, and captures the two funding streams available to a bank (repayment and collateral usage). Although it is easiest to implement in the context of SFTs, the Associations also believe that this methodology could be applied more generally to other forms of secured lending arrangements.

The NSFR currently does not distinguish secured and unsecured lending arrangements. Consistent with the principle of recognizing collateral quality in the liquidity framework, the Associations believe that all RSF factors for lending arrangements should distinguish secured and unsecured loans. Secured loans have a more robust funding and liquidity profile because the lending institution has the ability to liquidate collateral in the event of counterparty default and, in some cases, may be able to utilize the collateral before the loan is fully repaid. More significantly, however, the fact that a loan is secured by itself increases the liquidity profile of the loan, since a bank can more easily sell a secured loan to generate cash than one that is unsecured since the purchaser of the loan is not exposed solely to the credit quality of the borrower.

In conclusion, with the exception of inter-bank loans, the Associations recommend that the NSFR assign a 50% RSF factor for all unsecured lending arrangements with maturities of one year or less *unless* it can be clearly established, subject to national supervisor review, that there is no reputation or franchise risk incurred if the loan is not rolled over. In the case of secured loans, the Associations recommend that the NSFR assign an RSF factor equal to the product of 50% and the RSF factor that would apply to the collateral if held by the bank as an unencumbered asset. For example, while an unsecured loan would receive an RSF factor of 50%, a loan secured by gold would receive an RSF factor of 42.5% (50% x 85%). Although this treatment would result in only marginal changes to the RSF in the case of loans secured by assets with higher RSF factors, the framework would better reflect the funding and liquidity distinctions of secured and unsecured loans.

***Recommendation:*** With the exception of inter-bank loans and loans where it can be clearly established, subject to national supervisor review, that there is

**no reputational or franchise risk if the loan is not rolled over, which would continue to receive a 0% RSF factor, all other unsecured lending arrangements with maturities of less than one year would receive a 50% RSF factor, while secured lending arrangements with maturities of less than one year would receive an RSF factor equal to the product of 50% and the RSF factor that would apply to the collateral securing the loan if the collateral were in an unencumbered asset of the bank.**

4. ASF factors generally

The Associations recognize that the BCBS has calibrated the ASF and RSF factors so that there is an asymmetry between available funding and required funding, with the latter generally receiving higher weights. The Associations believe that the purpose of this asymmetry is to incentivize banks to rely on long-term stable funding sources even where they might otherwise be able to match short-term available funding and short-term required funding in normal market conditions. By choosing this approach, the Associations recognize that the BCBS intends to incentivize banks to support more of their balance sheet through capital and long-term funding and guards against over-reliance on short-term wholesale funding.

Because the NSFR is calibrated intentionally to be asymmetrical, modifying the RSF and ASF factors simultaneously would potentially result in situations where a bank would recognize a higher ASF factor than the corresponding RSF factor. That would not, in our view, be a credible outcome in light of the underlying policy goals of the NSFR. Accordingly, our recommendations in this submission have only focused on the RSF factors.

Should the BCBS decide, however, that our comments related to collateral quality would better be captured in the ASF portion of the NSFR, the BCBS might instead consider modifying the ASF factors to recognize collateral quality. For example, if the RSF factor for secured lending and reverse repurchase transactions with non-bank financials remained at 50%, the ASF for secured borrowing and repurchase transactions with non-bank financials might be increased from 0%, possibly even by utilizing the same 50% x unencumbered asset RSF factor approach recommended in this submission.

***Recommendation:* If the RSF factors for secured lending arrangements remain unchanged from the current version of the NSFR, the BCBS should consider corresponding adjustments to the ASF factors to reflect the more robust funding and liquidity profile of secured transactions, while still preserving a net overall asymmetry in ASF/RSF assumptions to incentivize reliance on long-term funding sources.**

## ***B. Principle 2: Counterparty identity***

The NSFR assigns different RSF factors to transactions with “banks subject to prudential regulation” versus transactions with “non-bank financial institutions.”<sup>29</sup> The Associations agree with the BCBS that different counterparties pose different risks in funding markets, and that imposition of asymmetrical ASF/RSF assumptions on inter-bank transactions might cause economic disruptions.

The Associations are concerned, however, that the category of “banks subject to prudential regulation” is too narrow. The recommendations in this section are limited to specific instances where the Associations believe that the “bank” category should be expanded slightly to include entities that are subject to bank-like regulation and perform bank-like functions in financial markets.

### **1. QCCPs**

The NSFR limits the “bank” category to “banks subject to prudential regulation,” which the Associations believe in most instances would exclude QCCPs from this category, leaving them in the non-bank financial category. As a result, transactions with QCCPs would be subject to more onerous RSF factors than bilateral transactions in the inter-bank market. The Associations recommend that the BCBS reconsider this treatment, and specifically recognize QCCPs as “banks” for purposes of the final NSFR, including for those QCCPs that are not themselves organized as banks.

QCCPs are subject to extensive capital and liquidity regulation. In 2012, the Bank for International Settlement’s Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions published their revised *Principles for Financial Market Infrastructures*, which impose rigorous credit, liquidity, operational and legal requirements on CCPs to achieve QCCP status.<sup>30</sup> These principles include specific standards focused on credit and liquidity risk management, and QCCPs around the world are currently working with national supervisors to ensure compliance with the principles.<sup>31</sup>

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<sup>29</sup> NSFR, Paragraph 29(c), 32(c), 32(e).

<sup>30</sup> Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions, *Principles for Financial Market Infrastructures*, April 2012, available at: <http://www.bis.org/publ/cpss101a.pdf>

<sup>31</sup> See, e.g., Core Principles, Derivatives Clearing Organization General Provisions and Core Principles, 76 FR 69334 (Nov. 8, 2011); Subpart C, Derivatives Clearing Organizations and International Standards, 78 FR 72476 (Dec. 2, 2013); Clearing Agency Standards, 77 FR 66220 (Nov 2, 2012); Standards for Covered Clearing Agencies, 79 FR 16866 (Mar. 26, 2014); Financial Market Utilities, 79 FR 3665 (Jan 22, 2014); Policy on Payment System Risk , 79 FR 2838 (Jan 16, 2014).

Failure to expand the “bank” category to include QCCPs would result in potentially unintended policy outcomes. QCCPs increasingly serve as market intermediaries in secured lending markets, particularly for inter-dealer transactions supported by high-quality sovereign securities. If banks were required to treat QCCPs as non-bank financials for purposes of the NSFR, banks would assign a 50% RSF factor to short-dated centrally cleared reverse repurchase transactions. By contrast, if banks left these transactions as uncleared inter-dealer exposures, they would assign a 0% RSF factor to their bank counterparty. This result is illogical, does not reflect funding differences between cleared and uncleared trades, disregards the extensive work to impose a bank-like regulatory regime on QCCPs, and imposes real economic costs that would discourage central clearing.

***Recommendation:* QCCPs should be considered “banks” for purposes of the RSF factors.**

2. Broker-dealers embedded within banking organizations

Broker-dealers, particularly those that serve as primary dealers in sovereign debt, are frequently organized as subsidiaries of banking organizations. Under this common model, which is utilized in jurisdictions around the world, the banking organization is subject to prudential regulation, including capital and liquidity regulation, on a consolidated basis, including with respect to the positions and risks of the embedded broker-dealer.

The Associations understand that the BCBS intended the bank category to include all consolidated subsidiaries of banking organizations, but believe this point should be clarified in the final NSFR to avoid ambiguities and potentially inconsistent national implementation.

***Recommendation:* Confirmation that broker-dealers embedded within banking organizations should be considered “banks” for purposes of the RSF factors.**

3. Central banks

The NSFR refers to “banks subject to prudential regulation,” a term that does not appear to encompass central banks, many of which are prudential regulators (rather than subject to prudential regulation) and engage in various market transactions. As with commercial banks and QCCPs, central banks serve important market intermediary functions. Therefore, the Associations do not believe that the BCBS intended to treat central banks as “non-bank financial” counterparties for purposes of

the NSFR. The Associations believe that the final NSFR should clarify, however, that central banks are included in the “bank” category.

***Recommendation: Central banks should be considered “banks” for purposes of the RSF factors.***

4. Certain non-bank financial entities

As discussed, the category of “banks” is too narrowly defined. As a result, important financial market participants that help support monetary policy, such as certain broker-dealers and insurance companies, would be penalized with potential negative impacts on important markets.

Broker-dealers that are designated as primary dealers serve as trading counterparties for the central bank in its implementation of monetary policy. In general, primary dealers participate consistently in open market operations to carry out monetary policy for the central bank. Imposing a higher RSF factor on transactions with such primary dealers that are not included in the “bank” category could affect banks’ willingness to transact with them to the detriment of the primary dealers’ ability to perform their function of supporting monetary policy.

Insurance companies also are key participants in sovereign debt markets because they support banks’ market-making activities through the repurchase market. In the primary securities market, market makers are expected to help implement monetary policy by bidding in sovereign bond auctions or underwriting positions in syndicated bond issues. The repurchase framework allows market makers to fund their bids and hedge their underwriting risk, thereby providing less risky and cheaper access to the capital markets for sovereign issuers.

In the secondary securities market, market makers must stand continuously ready to purchase or sell securities and to quote buying and selling prices. However, market makers cannot afford to hold a large securities inventory that would substantially raise their costs and therefore the cost of debt to issuers. To continuously quote buying prices, they instead rely on their ability to hedge accumulations of securities bought by lending these securities via the repurchase market. Market makers also rely on the repurchase market to borrow securities to deliver to investors, which supports their ability to continuously quote selling prices without having to hold a large inventory.

In addition, certain types of non-bank financial institution will become subject to more bank-like prudential regulation by the effectiveness of Basel III in 2018, likely including liquidity and capital requirements. The BCBS should avoid placing such

institutions at a disadvantage and leave open their treatment on an equal basis with the institutions receiving 0% RSF treatment under Paragraph 29(c) at the appropriate time.

***Recommendation:* Entities, such as certain broker-dealers and insurance companies that support the implementation of monetary policy in their local jurisdictions should be treated as “banks” for purposes of the RSF factors.**

## ***Detailed Discussion III: Linked Transactions***

### **Introduction**

The Associations support the goal of the BCBS to finalize the NSFR in a form that is relatively simple and can be implemented without undue complexity. Such an approach would permit both regulators and the public to compare the funding and liquidity profiles of banking organizations across jurisdictions.

At the same time, the Associations believe that the NSFR, as currently formulated, fails to capture the funding and liquidity profiles of certain commonly used “linked” transactions that require little, if any, funding support from the bank and pose similarly small liquidity risks. When linked, these transactions exhibit different funding characteristics than the standalone position. Various legal and operational provisions apply to the linked transactions. Such provisions are designed to remove the risk of price volatility and ensure that the transactions can be unwound simultaneously with full pass-through of any market and funding risk, thereby establishing the link between the transactions.

Accordingly, as described below, the Associations believe that the final NSFR should include limited exceptions to the general ASF and RSF factors (subject to other revisions proposed in this submission) where the existence of specific liquidity, credit, market, and operational risk considerations supports recognition of an exception for specific linked transactions that otherwise would be penalized under the NSFR.

Issues of derivatives netting and treatment of derivatives collateral for NSFR purposes are discussed in *Detailed Discussion IV: Derivatives Issues*, to which reference is made. The net end payable or receivable position of linked transactions as discussed in *Detailed Discussion IV* would, in appropriate cases, enter into the netting described in Paragraph 22(c) of the NSFR after applying the linked-transactions analysis described in this discussion.

#### **1. Stock borrows / reverse repurchase arrangements to cover firm or client shorts**

In their capacity as market intermediaries to facilitate client trading strategies, financial institutions routinely engage in stock borrow and reverse repurchase transactions to obtain securities that the firm itself or a client will sell short. Consider, for example, a bank with a client who wishes to sell short a particular security. To facilitate the client’s trading strategy, the bank may borrow the security from a third party, generally on a secured basis, collateralizing such borrow with cash or other securities. The bank may then lend the same security to its client (also in exchange for cash). The tenor of both the stock borrow to obtain the security and the stock lending transaction to the customer is typically on an “open” basis (i.e., maturing on demand), reflecting the fact that the client would need to retain flexibility to adjust its strategy with respect to such security. When the client terminates the trade, the

bank receives the security back from the client (returning the cash) and, in turn, returns the security to the third party (also in exchange for cash). In this example, the bank is not engaging in short-term secured lending to fund its inventory assets. Instead, the bank has decided that the most efficient manner of servicing the client request is to borrow the security externally, rather than relying on existing bank inventory.

Similarly, a firm may borrow a security to sell short for its own account in connection with the hedge of a transaction undertaken for another client, or in connection with its market-making activities. For example, a client may desire exposure to a particular security in a derivative form, such as an equity swap linked to the stock price of XYZ company. In order to hedge its market risk exposure to such company under the derivative, the firm may borrow shares of XYZ stock in a cash-collateralized stock borrow transaction, and sell such securities short in the market.

These back-to-back, offsetting transactions are typically short-dated, which is logical, since clients commonly take a view on near-term market changes. In addition, assuming such short sales are “capable of being maintained” during a 30-day period (as most shorts are), both the stock borrow and related short are excluded from a firm’s LCR calculation.<sup>32</sup> As proposed, however, the NSFR, treats the stock borrow asset in such ordinary course client facilitation and hedging transactions as bank financing transactions subject to punitive, asymmetrical ASF and RSF assumptions unless the client is another bank. Where the transactions are short-dated (i.e., less than six months) and involve equities included in a major index<sup>33</sup>, the bank’s ASF factor on the either the stock loaned to its non-bank financial client in the client’s short transaction in the first example, or the securities sold short in the second example would likely be 0%, while the RSF factor on the stock borrow transaction to the third party would be 50%.<sup>34</sup> This treatment would apply even where the bank puts in place risk management and contractual arrangements to ensure that it could unwind the client-facing and third party-facing transactions simultaneously, virtually eliminating the possibility of funding gaps. At a high level, the bank’s role in such transactions is similar to the riskless principal model in client clearing, which the BCBS has accommodated in the capital framework through specific exceptions to rules of general applicability.<sup>35</sup>

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<sup>32</sup> LCR, Paragraph 146.

<sup>33</sup> For further information on major-index equities, see parts 2 and 3 of *Detailed Discussion I: RSF Factors*, and Appendix 2 thereto.

<sup>34</sup> NSFR, Paragraph 22(a), 32(e)

<sup>35</sup> BCBS, Basel III leverage ratio framework and disclosure requirements (“**Basel Leverage Framework**”), Paragraph 27. For instance, the Basel Leverage Framework generally requires a bank to calculate its exposures to qualifying central counterparties (QCCPs) in the same manner as exposures to other counterparties, but permits a bank to exclude these exposures when the bank is acting in a client-clearing capacity and has no obligation to reimburse its client in the event of QCCP default. The Associations recognize that in a client-clearing transaction the bank’s non-performance obligation is an element of the governing contract, as opposed to a market convention



The Associations do not think that the NSFR treatment described above advances the BCBS's underlying policy goal of encouraging banks to finance more of their activities through capital and long-term debt, since the bank's own assets are not involved. Instead, by treating firm and client short facilitation transactions like bank financing transactions, the NSFR would force banks to price punitive RSF assumptions into their client-facing transactions and could significantly increase the costs of their market-making and hedging activities. More generally, the Associations do not think that the correct policy outcome is for banks to issue long-term debt to support client trading activities.

The Associations believe that long-term debt should support banks' *inventory* assets rather than banks' roles as intermediaries when conducted as described herein. Accordingly, where a bank borrows securities to cover a firm or client short position through symmetrical, offsetting positions, the Associations recommend that the NSFR assign equivalent ASF and RSF factors (or otherwise permit the bank to net such offsetting positions to result in an NSFR impact of zero).<sup>36</sup>

The Associations believe that the current asymmetrical treatment is unwarranted in the case of firm shorting transactions. Unlike bank funding transactions where there may be a valid argument for building a conservative bias into the NSFR, the Associations believe that there is no valid reason to impose a regulatory liquidity drag on a bank's shorting strategies, which are already highly regulated and protected by mutually reinforcing credit, liquidity, market and operational risk safeguards.

***Recommendation:* Where a bank borrows a security from a non-bank to cover a firm or client short position, the NSFR should recognize an exception from the general RSF factor that applies to loans to non-banks, and instead permit the bank to recognize equal and offsetting ASF and RSF factors or allow both transactions to be excluded from the NSFR in the same manner as they are currently excluded from the LCR.**<sup>37</sup>

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or risk management practice, but the Associations believe that, in the liquidity and funding context, it provides an illustrative analogy for certain offsetting, symmetrical transactions that support client activities.

<sup>36</sup> See *Detailed Discussion IV: Derivatives Issues*. The Associations believe that this treatment should extend to economically equivalent transactions executed through synthetic structures, which present the same liquidity risk management considerations. .

<sup>37</sup> The NSFR could incorporate such equivalent ASF and RSF factors in one of two ways. In the limited cases where equivalent factors would apply, the NSFR could (i) take the RSF factor applicable to one leg of the transaction and deem the offsetting position to have an equivalent ASF factor (e.g., a 50% ASF factor would be deemed to apply to the offsetting position where, under the NSFR methodology, a 50% RSF applies to the original position in these limited cases); or (ii) simply deem these limited categories of transactions to net for liquidity purposes, excluding them entirely from the NSFR calculation. Either approach would achieve the same substantive goal of limiting the asymmetrical assumptions to situations where the bank is actually engaged in funding activities and has meaningful gap funding risk.

## 2. Trading book assets held as hedges

The NSFR assigns RSF factors to all unencumbered assets without distinguishing among the purposes for which the bank holds the asset. As a general rule, the Associations believe that this blanket treatment is appropriate, because a bank will have to fund any asset held on its balance sheet, whether the asset is held as a long-term investment, as part of its market-making inventory, or for another purpose. There is one exception to this general rule that the Associations think is appropriate, however; where the bank holds the asset as a market risk hedge to a linked client facilitation transaction, either in the form of a security or an ETF.

### a. Trading book assets held as hedges in Synthetic (short-term) Secured Funding Structures

*Equity Swaps/Total Return Swaps:* Securities are frequently held as market-risk hedges against client-facing total return swaps. Clients may execute total return swaps as a synthetic secured funding transaction to gain exposure to a particular security or index without the need to provide the full funding amount that would be required for an outright purchase of such security. The swap market is therefore analogous to a short-term synthetic funding market with the vast majority of swaps terminable by the client or bank in less than 30 days. The NSFR assigns a RSF factor for unencumbered equities of 50-85% on the securities held to hedge the client exposure.

The swap agreement ensures a full pass-through of the performance of the hedge to the client. Changes in the value of the hedge are offset by changes in the value of the swap, which are then met with regularly posted variation margin. The transaction will typically also include initial margin, which is used by the firm providing the swap to finance the purchase of that firm's hedge of the swap. The swap is recorded under Portfolio Swap Agreement (PSA) and International Swaps and Derivatives Association (ISDA) documentation, which will also reference the quantity and CUSIP/ISIN of the reference security, thereby making clear the link between the hedge security held and the swap.

There are various protections that further ensure the hedge can be liquidated at the expiry of the swap. These protections include, for example, the ability to physically deliver the security to the swap counterparty, termination provisions which give the bank the ability to move the final termination date if it cannot affect the unwind of the hedge, final price determination provisions which allow for scenarios in which the hedge cannot be unwound in full in one trading session, unwind expense provisions which give the bank the right to adjust the unwind proceeds to reflect the costs of unwinding the hedge, and market-disruption provisions which allow the bank to terminate the transaction if there is disruption to its ability to hedge.

As a result, cash equity positions linked in this way, exhibit maturity characteristics similar to those of the swap agreement. The BCBS has previously acknowledged trade linkages and the impact on residual maturity.<sup>38</sup>

It should also be noted that equity swaps have been the focus of prudential liquidity regulation, alongside the prime brokerage business, discussed in more depth in section 4. *Customer account segregated assets*, below.

Prudential regulators have classified equity swaps as a synthetic short-term financing business (“Synthetic Prime Brokerage”). For Synthetic Prime Brokerage, prudential regulators require incorporating factors beyond those relevant to cash prime brokerage (e.g., an additional layer of internalization; independent amounts; and futures hedges).

***Recommendation: Trading book assets held as hedges in synthetic secured funding transactions, that satisfy all of the following conditions, may be linked and subject to the recommended revised treatment for Secured Funding Transactions (SFTs) with reference to initial margin.***

- i. Hedge asset (ISIN/CUSIP) must be referenced by the derivative contract;**
- ii. Matched hedge notional value or quantity; and**
- iii. Regularly settled variation margin.**

**The recommended revised treatment for SFTs would assign an RSF factor to the linked transaction based on:**

- i. Residual maturity of the linked transaction;**
- ii. Counterparty; and**
- iii. RSF factor applicable to the underlying hedge.**

b. Trading book assets held as hedges against client facing derivatives

*Futures/forwards market making:* Cash equities are frequently held as market-risk hedges against futures and forward market making strategies. In these instances, a bank may be left with exposure to an index through the futures market. The cash equity constituents of the index are purchased to hedge the market risk associated with this future/forward position. Since the futures trades are typically against major market main indices, the cash hedges are highly liquid. The cash equity hedges are financed in the

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<sup>38</sup> See BCBS, *Basel III definition of capital - Frequently asked questions*, December 2011 (update of FAQs published in October 2011), FAQ 17 to Paragraphs 78–89 (Investments in own shares, investments in the capital of banking financial and insurance entities and threshold deductions), <http://www.bis.org/publ/bcbs211.pdf>.

secured funding markets. (For further discussion of equities-related issues, see *Detailed Discussion I: RSF Factors*.)

Variation margin is posted regularly on the future/forward, and as a result the bank is insulated from price volatility risk in the underlying securities which it holds as a hedge. Any change in value of the cash equity hedge is offset by an equivalent change in value in the future, which is then met with variation margin.

Prior to expiry, the market provides additional liquidity risk management through Exchange For Physical (“EFP”) transactions which can be executed at any time prior to expiry, and which allow banks to collapse their futures and cash hedge positions with no price risk on the exit.

Futures, as exchange traded instruments, expire every third month and are therefore considered short-term. Final settlement procedures of the futures market ensures that hedges can be liquidated, and that the liquidation price of the hedge is used to derive the close out value of the future, mitigating any funding and market risk on expiry. Futures are cash settled to “Special Opening Quotations”, which allow banks to monetize equity hedges with riskless Market-on-Open (“MOO”) orders.

As a result, cash equity positions linked with futures/forwards market making, exhibit maturity characteristics similar to those of the Futures market.

*Options market making:* Cash equities are frequently held as market risk hedges against equity option market making strategies (*i.e.*, puts and calls). A portfolio of cash equities is typically held against the portfolio of client-initiated options transactions, in what is commonly referred to as a delta hedge. The cash equity portfolio is continuously rebalanced to ensure the effectiveness of the hedge, which includes any changes in the market value of the underlying exposure to the equity market.

The weighted average life of the options portfolio is generally not considered short term. As a result, while the cash equity positions are linked, the funding risks associated with these portfolios differs from other linked transaction types (including swaps, futures and forwards).

Changes in the value of the hedge portfolio are, however, for the most part offset with changes in the value of the options book, which is then met with regularly posted variation margin providing insulation from funding risks associated with price volatility. As a result, the Associations believe that applying the RSF factor for unencumbered equities (15% RSF for main index equities and 50% RSF for all other exchange-traded equities) to equity hedges linked to a firm’s equity options portfolio would be overly conservative.

In addition, the options market provides operational and structural safeguards that mitigate risks of hedge liquidation at the expiry of the options. For example, firms can enter into a "Must-Be-Filled Order" ("MBF") that offsets a pre-existing expiring derivatives position that is traded in accordance with Exchange Requirements governing such trades. The MBF Session takes place on the Thursday immediately before the option expiry day, thereby mitigating any price risk between liquidating the hedge and option expiry.

Various internal market, credit, and operational risk safeguards exist to ensure that the portfolio of securities used to hedge the equity options book is segregated, controlled and supervised as a part of the banks delta hedging mandate. Risk limit constructs ensure that banks cannot partially unwind linked structures. Banks are able to demonstrate linkage through their risk management systems on a daily basis.

***Recommendations:* Trading book activities where banks enter into outright cash securities positions and intrinsically linked equivalent and equal value risk mitigation positions for client facilitation or market making purposes should be deemed to have offsetting RSF and ASF values. For purposes of this recommendation, a bank would need to demonstrate (to its supervisor's satisfaction) that outright positions and risk mitigation positions are correspondent and equivalent in value both during the life of the transaction and upon unwind. To demonstrate the linkage, the bank could identify, for example:**

- **Legal or structural provisions allowing the bank to divest itself of the positions without suffering unexpected loss; (as described in Appendix 4);**
- **Trading operation practices allowing the bank to minimize exposure difference between the hedge unwind and the outright position (as described in Appendix 3);**
- **Regulatory requirements that restrict a bank's ability to maintain one of the intrinsically linked positions in isolation; or**
- **Safeguards against price volatility of the hedge, such as regularly settled variation margin, exchange-for-physical markets, liquid synthetic markets.**

For trading-book transactions with a residual maturity of less than six months, economic analysis and banks' experience of the derivatives business suggest that a 0% RSF would be the most objectively appropriate in a business-as-usual scenario; however, it is understood that the BCBS may wish to apply a prudential overlay to the business-as-usual scenario. That being the case, the Associations believe that a substantially lower RSF structure for transactions under six months ought to be given serious consideration by the BCBS.

The BCBS might decide that, upon consideration of structural, legal and operational dynamics, and recognition that equity securities are predominately held by banks as hedges to client facing derivatives, consequently equity securities are held as long as the derivatives are held. The issue could also be resolved by adjusting the unencumbered RSF factors for the equity product with meaningfully lower RSF. In making this decision, the BCBS should also consider the extent of the implied changes in funding structures and thus in overall markets in which funding risks are largely well controlled already resulting from the proposed NSFR rules (as well as those already mandated by the LCR).

### **3. Certain liability-driven transactions**

The Associations believe certain liability-driven transactions should be considered separately under the NSFR. The Associations use the example of secured deposits of municipalities and other Public Sector Entities (“PSEs”) in the United States to illustrate the issue. Although these deposits are a U.S. specific product, the concept underlying secured PSE deposits applies in other contexts in other jurisdictions.

The laws of various U.S. states require that the deposits of certain municipalities and other PSEs must be “secured or collateralized” by the insured depository institution that holds such deposits. These types of secured deposit arrangements are a critically important component of the suite of banking products provided by the banking industry to PSEs. The Associations believe that the NSFR should exclude products, such as secured deposits, from the RSF calculation for the reasons discussed below.

Secured deposits are significantly different in nature than other types of secured funding transactions where banks, at their discretion, seek funding to finance their securities inventory in the wholesale funding markets. From the perspective of a depository institution, secured deposits are first and foremost stable deposits. Typically these PSE deposits are collateralized by HQLAs. Banks may meet this collateralization requirement through a reverse repo transaction through which they accumulate the high quality collateral.

Should the PSE withdraw its deposit, these high-quality assets would no longer be required and the reverse repurchase transaction would be unwound. Similar to other liability driven transactions, the NSFR should exclude this type of reverse repurchase transaction from the calculation of RSF or apply a 0% RSF factor and correspondingly the municipal deposit should receive similar ASF treatment.

The Associations note that there are public policy considerations as well. Discouraging banks from providing secured deposit services to U.S. PSEs appears contrary to public policy goals. If a secured deposit results in a bank being required to hold 50% stable funding for purposes of the NSFR calculation, banks subject to the NSFR may have a strong incentive to stop offering these products for PSEs altogether because of the highly negative impact on

their NSFR calculations. Without ready and cost effective access to banking services to manage their funds and operational deposits, many U.S. PSEs could have substantial practical difficulties in continuing to provide critical public services to their citizens, meeting their payroll for public servants and more generally paying their day-to-day bills. The Associations firmly believe this is not an intended consequence of the NSFR. While this example is specific to the U.S. market, it would not be difficult to design a generic rule that would capture this and similar requirements that may arise in other jurisdictions.

***Recommendation: Certain liability-driven transactions, of which secured deposits for U.S. PSEs are one example, should be excluded from the calculation of RSF altogether. Alternatively, the reverse repurchase transaction should be assigned a 0% RSF factor and the deposit should be assigned a corresponding ASF factor.***

#### **4. Customer account segregated assets**

Another example of a linked transaction that the Associations believe should be addressed is balances held in segregated accounts in accordance with regulatory requirements (*e.g.*, SEC rule 15c3-3; pending segregation requirements under the E.U. EMIR directive; and similar rules in Canada, Australia, Singapore, and elsewhere). As context, bank affiliated broker dealers will allow clients to maintain cash in their brokerage accounts. This cash is often maintained by clients in order to meet future settlement requirements, meet collateral calls, and in some cases to earn incremental yield. Although these cash deposits will be reflected as a “payable to customer” on the liability side of a bank’s balance sheet, the value of this funding tends to be quite limited.

The proposal assigns a 0% ASF to “Other liabilities without a stated maturity.”<sup>39</sup> The Associations agree with this assessment as the liability has very limited value as the funding tends to be very short dated in nature given clients’ ability to deploy this cash via asset purchases and/or withdrawals. Additionally, this cash is often segregated for regulatory purposes such that it cannot be used to finance other aspects of the firm’s balance sheet. This regulatory segregation is designed to protect the clients from an insolvency of the broker dealers. We refer to these rules regarding segregation of client money as “Customer Protection Rules.”

Although the Associations agree with treatment of the liability, the corresponding assets that are required as a result of the Customer Protection Rules are not addressed in the proposed NSFR. As part of Customer Protection Rules, clients’ cash generally must be reinvested in low risk, liquid assets to ensure that clients can retrieve this cash in all circumstances. Most often the banks or broker-dealers must reinvest this cash in Level 1 assets or reverse repo in

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<sup>39</sup> NSFR, Paragraph 22(b).

Level 1 assets with explicit intent to be able to liquidate the assets in the event a client wants to retrieve its cash. As such, these assets are extremely liquid, and inextricably linked to the liabilities owed to the client.

Accordingly, given the explicit link between the short-dated liabilities and the very liquid nature of assets on the balance sheet the Associations propose to assign a 0% RSF factor for these assets given the regulatory link to the short dated liabilities that receive a 0% ASF. The reinvestment of this cash under Customer Protection Rules is closely tracked from a regulatory standpoint, and often is explicitly displayed on the face of banks' balance sheets. As a result, these assets and the liabilities to which they are linked should be simple to track.

***Recommendation:* Customer account assets segregated pursuant to Customer Protection Rules should be assigned a 0% RSF factor.**



### Appendix 3 – Overview of operational provisions

General market trading practices provide liquidity and funding risk protection for equity products.

Typical Equities operational trading practices help ensure linkage and minimize liquidity and funding risk impact. The below section provides an overview of typical procedures available.

Market Structures that provide liquidity and funding risk protection for equities

- Market-on-Open Orders (“MOO”):

Most markets have single-price auctions at the beginning ("open") and the end ("close") of regular trading. An order may be specified on the close or on the open, then it is entered in an auction but has no effect otherwise. There is often some deadline; for example, orders must be in 20 minutes before the auction. They are single-price because all orders, if they transact at all, transact at the same price, the open price and the close price respectively.

Combined with price instructions, this gives market on close (“MOC”), MOO, Limit on Close (“LOC”), and Limit on Open (“LOO”). For example, a MOO order is guaranteed to get the open price, whatever that may be.

- Special Opening Quotation (“SOQ”):
- Must Be Filled (“MBF”):

MBF order means a program trade that offsets a pre-existing expiring derivatives position that is traded in accordance with Exchange Requirements governing such trades.

- The MBF Session:

The MBF Session takes place on the Thursday immediately before the option expiry day. Option expiry day always occurs on the third Friday of every month so the MBF session is usually the third Thursday of the month unless the first day of the month was a Friday in which case the MBF session takes place on the second Thursday of the month (directly preceding the third Friday of the month). The MBF Session occurs during the Extended Hours Trading Session (4:15 pm-5:00 pm).

The MBF session is provided for entering MBF orders to offset expiring derivatives positions. For example, a trader must enter an MBF order when that trader has written an uncovered call to buy 5000 of ABC company @ \$10.00 that will be exercised because ABC is currently trading at \$12 (i.e. - the call is in the money). The trader who wrote the call has an obligation to deliver the stock at \$10 when it is exercised upon expiry and since the call was not covered the trader who wrote the call must buy the stock to be in possession of the underlying security (5000 shares of ABC) upon expiry. To ensure possession of the stock the call writer must enter an MBF (Must Be Filled) order to purchase 5000 ABC @ "mkt". That order will then trade at the market opening on expiry day.

On the expiry day all the MBF orders are treated like pre-open market orders and are thus guaranteed a fill at the market's calculated opening price. The MBF orders are visible to market participants but the MBF condition on those orders is not public. Only the net MBF imbalance for a given stock is made public. This publicity ensures that market participants have a chance to respond with enough liquidity to satisfy the MBF orders. Imbalances less than 5000 shares are not publicized. A buy imbalance means there are excess MBF buy orders and a sell imbalance means there are excess MBF sell orders.

Traders and Trading Services staff can enter, change or cancel MBF Orders during the MBF session (the day before expiry) but cannot enter, change or cancel an MBF order on the expiry day. MBF orders must be in board lot multiples.

- Exchange for Physical (“EFPs”)

An EFP (also referred to as "basis") involves simultaneous transactions in the cash and futures markets.

In an EFP, one party buys an acceptable cash market position and simultaneously sells the futures contract while the other party sells this acceptable cash market position and simultaneously buys this futures contract. Acceptable cash components are described in the procedure prescribed by the exchange.

The parties to an EFP privately negotiate the price of the futures position and the value of the cash commodity to be exchanged. Once the price and quantity of the futures have been set by the parties and an EFP has been accepted for clearing, the futures margin and delivery or settlement obligations of the parties arising from an EFP are not distinguishable from those executed competitively on the trading platform.

## Appendix 4 – Overview of typical legal provisions

Cash Settled Swaps: Further detail of typical legal provisions that provide Price, Liquidity and Funding risk protection upon unwind of cash settled swaps

Under the Portfolio Swap Agreement (“PSA”) for cash settled swaps, the firm has the ability to pass any hedge unwind risk to the counterparty in most single stock (portfolio) cases and most Index cases. This is provided through a combination of protection clauses available in the legal documentation (e.g. Termination Date Adjustment, Final Price, Unwind Expenses and Market Disruption)

The section below summarizes the main legal provisions available under both close-out scenarios which lead the firm to be materially price risk immunized for cash settled swaps under a PSA.

### 1. Termination Notice Provisions

#### a. Scheduled termination date

Termination happens at final Termination Date. The firm has the ability to move the final Termination Date if it cannot affect unwind of the hedge:

*“[...] if the firm is unable to acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transactions or assets it deems necessary to effect such termination or realize, recover or remit the proceeds of any such transactions or assets [...], it may, in whole or in part, move the Valuation Date, Termination Date and Cash Settlement Payment Date forward to the nearest dates as it is able to make such Termination Adjustments.”*

#### b. Optional Early Termination Process:

- i. Counterparty gives the firm termination notice
- ii. Notice period to be required for the counterparty to give notice.
- iii. The firm begins the un-wind of the hedge as soon as the notice is received.

### 2. Final Price determination

#### a. Final Price is per ISDA equity definitions and is typically one of:

- i. Volume Weighted Average Price (“VWAP”)
- ii. Market Close
- iii. “Objective measure” determined by the Calculation Agent (the firm). (i.e. the market price at which the hedge is exited).

**The firm has a “catch-all” provision for non-VWAP.** If the Calculation Agent (the firm) determines that the full size cannot be unwound, **the Final Price is the weighted average of what can be executed on subsequent days.**

In addition to the Standard Equity definitions, the following also apply:

- i. VWAP for final Valuation Date. There is a small risk that the executed VWAP does not match the official VWAP. Typically, a few pennies on

notional. Occasionally, the firm may commit to unwind a % of Average Daily Trading Volume (“ADTV”) on each day which protects against this slippage.

- ii. **Unlisted** – best bid (client long)/offer (client short) respecting full size.
- iii. **Other** – official exchange close
- iv. **Index/Future** – official exchange closing price based off equity definitions. This is where the firm may take some economic risk between the hedge and swap execution

### 3. Unwind Expenses

The Expenses sections provides for the firm a right to adjust the unwind proceeds to reflect costs in unwinding the hedge.

*“In determining the Final Price, Cancellation Amount, Payments on Early Termination or any other settlement amount, such amount shall[...] be adjusted to account for all costs, charges, fees, accruals, withholdings, expenses, fees and settlement delays or failures (“Expenses”) incurred by the Hedging Party in unwinding, establishing or re-establishing its hedge. In determining the Expenses, the Calculation Agent may take into account any factors it deems appropriate, including without limitation (a) the amount and timing of payments or deliveries that the Hedging Party would receive, (b) whether a hedge includes non-marketable assets (which may be valued at zero) and (c) whether the Hedging Party would be subject to contingent liabilities, including any requirement to return any distributions or otherwise make payments. In the event that a Transaction has been terminated and settled and the Hedging Party (or any of its hedging counterparties or their agents or affiliates) subsequently incurs a liability on any hedges relating to such Transaction, the Non-Hedging Party shall indemnify the Hedging Party with respect to such liability.”*

### 4. Market Disruption Events

Disruption Events affect swaps that are struck with Termination provisions greater than one year. These are when something goes wrong and handled by the Determining Party which is always the firm (except very rarely). These follow ISDA and include:

- Nationalization, Insolvency, Delisting
- Index Adjustments – Calc Agent Adjustment / Cancellation
- Change in Law – illegality / increased cost. Consequence allows the firm to Terminate on Cancellation Amount
- **Hedging Disruption** – can elect to terminate at Cancellation Amount.

- Increased Cost of Hedging – if there is an increased cost on the firm hedge, the firm can call it and client can a) accept re-price, b) pay fixed amount or c) terminate. Termination is on **Cancellation Amount**.
- Increased Cost of Stock Borrow
- Loss of Stock Borrow

The Cancellation Amount includes a “loss” concept under ISDA which is stronger than simply passing through out cost of unwinding the hedge.

## *Detailed Discussion IV: Derivatives Issues*

### **Introduction**

The NSFR consultative document Paragraphs 22(c) and 35(b) are intended to net down derivatives payables and receivables to one aggregate number based on current exposure only, across all transactions on the balance sheet. Under the current version, this yields a 100% RSF for a net receivable position; 0% ASF for a net payable position.

In general, there is merit in using a balance-sheet approach as starting point as well as assuming some asymmetries between assets and liabilities for funding purposes. However, the Associations believe that certain adjustments to the balance sheet may be necessary to capture the true funding characteristics of derivatives, and also to recognize the liquidity value provided by derivative payables.

The recommendations given below take into account the goals of the NSFR. It may be helpful, however to keep in mind how liquidity-risk management for derivatives works, which is different from the balance-sheet approach of the proposed NSFR. It is highly important for liquidity purposes to net collateral received or pledged against these cash flows: doing so is just as important as to net the mark-to-market and credit exposures (which are also important for balance-sheet and capital management).

In this context, IM effectively provisions for potential movements in the underlying mark-to-market in the event of a need to dissolve the contract owing to counterparty failure. Upfront cash exchanges or prepaid amounts may also enter into the process, offsetting variation margin.

It is against this background of everyday risk management that the following recommendations are made, after an explication of the Associations' understanding of the intent of "regulatory netting" for NSFR purposes.

**Summary.** To summarize, NSFR derivatives netting would work as follows in accordance with the Associations’ understanding of “regulatory netting” and recommendations set forth in this submission:

Derivative Category	Impacted NSFR item	Description
<b>A. Transactions as Intermediaries involving CCPs</b>	RSF / ASF	- Receivables and payables originated in client clearing trades to reflect matched economics on both sides, assigned 0% RSF and 0% ASF, respectively
<b>B. Transactions as non-intermediaries</b>	Net RSF / ASF	- Calculate a single consolidated net ASF or RSF per Paragraph 22(c) that includes the net of the following:
	Derivatives Netting	a. Sum all derivatives mark-to-market receivables and subtract all derivatives mark-to-market payables across all derivative trades, adding in the net result of linked transactions per C. below.
	Variation Margin	b. Sum all cash and securities posted as variation margin and subtract all cash and securities received where the bank has the right to reuse such collateral.
	Initial Margin posted and received (ex-CCPs)	c. Sum all cash and securities posted as initial margin and subtract all cash and securities received where the bank has the right to reuse such collateral.
	Initial Margin posted to CCPs	d. Sum all cash and securities posted as initial margin to CCPs for house positions (i.e.: exclude IM for agency trades covered in A. above).
RSF / ASF	- Assign X% RSF if net of a. to d. is positive (i.e.: net asset), and assign Y% ASF if net of a. to d. is negative (i.e.: net liability) (RSF factors to be determined per paragraph 6 below.)	
<b>C. Linked transactions</b>	RSF / ASF	Linked transactions should be included after being treated in accordance with <i>Detailed Discussion III: Linked Transactions</i> .

The following discusses the points summarized above in more detail.

## 1. Netting issues

The Associations believe that the approach described below would be the most appropriate way to achieve the netting goals of Paragraph 22(c). Given both the importance of the topic and the difficulties of interpretation of the present text, even for experts, confirmation of each element of this discussion, as well as the recommended conclusions, would be appreciated.

The aggregate net number would be on a consolidated basis except where the regulator requires application of Basel on a sub-consolidated basis. The associations would appreciate further clarifications on derivative netting between entities within a group to ensure a consistent approach.

Except for netting as described below, accounting rules apply to determine “carrying value” per Paragraphs 16 and 24.

Section 6.2.2 of the Instructions for Basel III Monitoring (2014) specifies “regulatory and not accounting netting”.

There have been a number of questions and different interpretations of what “regulatory netting” means in the NSFR context. Additional clarification would be helpful, but should be discussed with the industry before publication. Such clarification might be provided in the revised NSFR or as guidance outside of the NSFR document, to avoid over-burdening or delaying that document.

**Clarification:** understanding of “Regulatory Netting” is understood as follows:

- Banks would carry over from the capital side the netting done for prudential capital purposes.<sup>40</sup>
- All transactions would need to meet the requirements of the Basel netting process step-by-step before aggregation for purposes of Paragraph 22(c) of the NSFR.
  - This comprises normal Basel requirements for legally binding netting agreements and legal opinions and would include both uncollateralized and collateralized derivatives.
  - *Add-ons* defined for capital purposes would be *disregarded* for liquidity purposes.
- In summary, Regulatory Netting is equivalent to Current Exposure<sup>41</sup> by netting set for liquidity purposes.

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<sup>40</sup> See: Basel II, Paragraphs 186-7, Annex 4, Part C definitions and Paragraph 96.



The above understanding of Regulatory Netting is done at the valid master netting agreement level.

Then the subsequent additional netting required by the NSFR across counterparties to reach a final single number for derivatives (ASF for net derivatives payable or RSF for net derivatives receivable), per Paragraph 22(c).

***Recommendation:*** To the aggregate result of such Regulatory Netting, this submission proposes that the aggregate net end result of the proposed linked-transactions analysis pursuant to *Detailed Discussion III: Linked Transactions* would be added, before proceeding to the final NSFR netting per Paragraph 22(c).

## 2. Collateral issues

The Associations believe that the collateral associated with derivatives payables and receivables is a fundamental part of the funding characteristics of derivatives. For example, rehypothecable collateral posted by a counterparty to secure a firm's derivatives assets is a source of funding for such firm. Conversely, any collateral that a firm is required to post to collateralize its derivatives liabilities is a use of funding by such firm.

***Recommendation:*** Given the importance of collateral in the funding profile of a firm, the Associations recommend that the NSFR treatment of derivatives should take into account related, collateral received by and posted by a firm, provided that such collateral satisfy the following conditions:

- **Margin received is eligible financial collateral, including eligible securities collateral, posted or received as initial margin (“IM”), independent amount (“IA”) or variation margin (“VM”) or equivalents (as defined in accordance with an industry-standard agreement or the rules of a CCP);**
- **In the case of collateral received by the firm, the firm has rehypothecation rights or full ability to use such collateral;**
- **Such collateral would be calculated after normal haircuts in accordance with business practice and otherwise applicable regulations;**
- **Any such collateral is referred to as “Qualifying Collateral”; and**
- **Qualifying Collateral received by the firm would net down a firm's derivatives receivables. Likewise, Qualifying Collateral posted by a firm would net down derivatives payables.**

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<sup>41</sup> See: Basel II, Page 256. “**Current Exposure** is the larger of zero, or the market value of a transaction or portfolio of transactions within a netting set with a counterparty that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in bankruptcy. Current exposure is often also called Replacement Cost.”

To illustrate this approach:

- Assume a firm has derivatives receivables on its balance sheet of \$100 and has received Qualifying Collateral of \$60, comprising \$50 of cash collateral and \$10 of rehypothecable securities collateral.
- Further assume that such firm has derivatives payables of \$90 and has posted \$70 of Qualifying Collateral, comprising \$60 of cash and \$10 of rehypothecable securities collateral.
- In this hypothetical, such firm would have a \$40 net derivatives receivable and a \$20 net payable, for a total net receivable of \$20.

***Alternative Recommendation:*** Where a firm is able to demonstrate to the satisfaction of its supervisors that it has the systems and procedures in place to do so reliably, a firm could *elect* to treat net IM given and received separately in the calculation. Under such approach, net IM would be “bucketed” by tenor, viz. maturities below six months; maturities between six and twelve months; and maturities over twelve months. ASF/RSF spreads for each tenor would be treated symmetrically and determined per section 6 below. As an illustration, below-six-months tenor might be given 0% RSF and 0% ASF; the six-to-twelve months’ tenor might be given 50% RSF and 50% ASF; and beyond twelve months 100% RSF and 100% ASF.

### 3. Transactions as intermediary involving CCP

With respect to IM posted to CCPs for banks’ “Customer” positions where firms act as non-risk taking intermediaries between clients and CCPs, the industry believes that such activity should be excluded from the NSFR derivatives framework.

Market and liquidity risks are borne by the clients, which execute their trades through clearing banks that have memberships in, and provide access to, CCPs.

IM posted to CCPs in such transactions, which is fully funded by clients, manifests on the balance sheet as receivables, while IM received from clients shows up as customer payables.

The industry believes that both collateral posted to on behalf of CCPs and excess customer collateral, which are both part of accounting assets, should be given a 0% RSF, and that customer payables funding these assets should be given 0% ASF, given the self-funded nature of this activity.

#### **4. Link between derivatives and non-derivatives products**

In defining the appropriate net treatment of collateral for purposes of the NSFR, the principles regarding linked transactions should be taken into account.<sup>42</sup>

#### **5. Tenor of derivatives payables and receivables**

Certain jurisdictions have asked for information on the tenor of derivatives assets and liabilities under the NSFR one-year horizon. The ability to align net counterparty collateral postings and offsetting present-value derivative mark-to-market amounts would involve complex programming and systems and allocation algorithms that are being developed for other regulatory and business purposes. Although the NSFR's pushing all flows to over one year and netting them off against each other is less granularly accurate, it has the virtue of being simpler and may facilitate the QIS analysis. As discussed in the alternative recommendation above, some firms may find it worthwhile to demonstrate to their supervisors that they have done the necessary developments to support bucketing by tenor of IM as discussed above. Other firms may prefer the simplified approach and include IM in their overall netting, as per the first recommendation above.

#### **6. The Associations suggest reconsideration of the RSF/ASF spread.**

The Associations find asymmetrical assignment of 100% RSF and 0% ASF (100% spread) to net derivatives per Paragraph 22(c) extreme because it disregards the potential liquidity value of net derivatives payable positions and the fact that many derivatives are short-dated, with explicit exit provisions.

Many feel that a 100% ASF for net derivatives payables pursuant to Paragraph 22(c) would be the most conceptually correct choice for a non-stressed scenario, if the 100% RSF is to be retained, and would correspond best to the way liquidity is actually managed, as discussed in the opening comments.

Nevertheless, it is understood that the BCBS may want to add a degree of prudence to the calibration. Therefore, the Associations propose the BCBS use the QIS data it may receive (supplemented by supervisory data or data firms can supply to their supervisors as need be) to assess actual cash flows from firms' portfolios of transactions to define an appropriate ASF/RSF spread for derivatives payables and receivables, during the further evaluation of derivatives issues mentioned in Paragraph 22(c).

An appropriate spread would be substantially narrower than 0%/100% but could involve a degree of ASF/RSF asymmetry to add a prudent degree of conservatism to cover franchise

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<sup>42</sup> See *Detailed Discussion III: Linked Transactions*.

issues and volatility. This could be thought of as a haircut on the ASF relative to the RSF, but there would be various ways to make the adjustment; such a haircut could be thought of as analogous to the cap on LCR inflows, while recognizing the ongoing nature and actual funding produced by the business.

Of course, the Associations and their member institutions would be pleased to provide whatever assistance or consultation might be helpful in such a review process.

## **7. Postscript: Basel Leverage Framework netting standards should not be applied in the NSFR.**

The Associations understand that the BCBS is considering whether the netting standards from the Basel Leverage Framework should be incorporated into the NSFR.<sup>43</sup> The Associations believe that the BCBS should incorporate different netting standards into the NSFR, taking into account the distinct policy goals and purposes of the leverage ratio and the NSFR.

The Basel Leverage Framework is an exposure-based theory of capital regulation. The leverage ratio does not recognize IM as exposure-reducing and only recognizes VM as exposure-reducing where the VM received is equivalent to daily settlement. The Associations understand that the BCBS adopted this approach based on the premise that leverage is a non-risk-adjusted measurement of a bank's exposure. Accordingly, it was apparently the BCBS's interpretation that, when the bank receives margin from a counterparty, the margin reduces the bank's risk but does not necessarily reduce the bank's exposure, since the bank is exposed to both the counterparty and to the counterparty's collateral. The BCBS recognized an exception to this principle in Paragraph 25 of the Basel leverage framework, where it identified conditions for recognizing VM in limited circumstances, leading to a reduction in the leverage ratio's exposure measurement.

The BCBS's rationale with respect to collateral in the leverage ratio is wholly inapplicable to funding sources and funding requirements. For example, consider a bank that receives €100 of securities as IM, with full rights of re-hypothecation, at the origination of a derivatives contract with a one-year maturity; thus, the bank has full ability to use the €100 for one year. Whereas the leverage ratio aims to capture a bank's non-risk-adjusted exposure, the NSFR aims to capture a bank's funding sources and requirements. In the leverage framework, the BCBS might consider that, while the IM may reduce the bank's counterparty credit risk, the bank still has an economic exposure via higher leverage. In the liquidity framework, the IM should be considered as a relevant source of funds.

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<sup>43</sup> See Basel Leverage Framework.

For similar reasons, the Associations believe that the VM in the form of cash or securities received should be recognized in the NSFR.

Again, the theory supporting the recognition of VM and IM in the NSFR is different than in the leverage ratio. The VM and IM received as either cash or securities are available to the receiving bank as a source of liquidity. Rehypotheicable VM and IM will allow the bank to use the cash or proceeds from the sale of the securities received as needed.

Finally, for the avoidance of confusion, the Associations think it is useful briefly to observe that the netting criteria for SFTs in the Basel Leverage Framework provide no guidance for determining whether derivatives margin payments should be recognized for purposes of the NSFR. Again, because the leverage ratio is focused on an exposure theory, the BCBS designed the SFT netting criteria to determine when two offsetting SFTs cancel one another out, resulting in no residual exposure. These criteria – including the requirement that linkages to collateral flows do not result in the unwinding of net cash settlement<sup>44</sup> – have no operational relevance in the context of derivatives collateral.

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<sup>44</sup> Basel Leverage Framework, Paragraph 33(i), (c).

## **Annex 2: 2012 IIF Analysis: “Inclusion of Equities in the Liquidity Coverage Ratio”**

**Summary.** The attached presentation was originally submitted to the BCBS WGL in July 2012, following a meeting between the BCBS WGL and IIF members that spurred a robust discussion on the value of equities in the liquidity framework.

This analysis was done by representatives of IIF members and aimed to address the stated concerns of the BCBS about considering equities as HQLA for LCR purposes. The presentation examined the depth of both cash and secured financing markets, as well as derivatives markets that offer additional avenues for monetization of equity positions. An extensive survey of available data showed that “prime equities” (as defined in the presentation) can be easily monetized - even in crisis situations - in a number of ways, thus offering additional liquidity value to firms regardless of market conditions.

The presentation also outlines possible approaches to provisions for inclusion of prime equities, including generally accepted index practices and acceptance for secured financing facilities. The same discussions also explored possible treatment of hedging transactions.

Although this analysis was intended for the LCR response, the Associations believe much of the insight from the analysis is useful for the consideration of equities under the NSFR framework as well. The Associations therefore see this document as the start of a conversation on how logically to treat prime equities in the NSFR so the ratio truly reflects the funding profile of a bank and can better achieve liquidity goals while at the same time not disrupting market liquidity created by banks.

# Inclusion of Equities in the Liquidity Coverage Ratio

IIF Working Group on Liquidity

**July 2, 2012**

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# Executive summary (1/3)

## Rationale for our suggestion

Analysis conducted by the IIF Working Group on Liquidity indicates that equity securities that are components of major market indexes (prime equities) qualify as high-quality liquid assets (HQLAs) that can be monetized under stressed conditions and deserve inclusion in the LCR.

Recognition of such “high quality” equities will help regulators:

- Introduce greater diversity in the pool of liquid assets and reduce potential concentration risk in sovereign debt;
- Ensure that the liquidity standard appropriately recognizes the liquidity value of equities held by banks, subject to the same market-testing and rigorous risk management requirements applied to other liquid assets;
  - Ensure that any subsequent disclosure of the LCR accurately reflects the true and relevant liquidity position of individual firms without requiring additional discussion.
- Mitigate the potential unintended impacts on equity capital market liquidity arising from the implementation of the Basel III liquidity standards. Such impacts include:
  - Reduction in the liquidity of equity markets;
  - Increased costs that will impact firms’ ability to make markets, trade and hedge risk, support new issuance and provide client products;
  - Uneven impacts across firms and thus driving a concentration of market share;
  - Diminish the diversity of equity market participants, inhibiting equity market liquidity and efficacy;
  - Create an environment where less liquid but higher spread business is favored to low margin, high volume liquid activity.

## Executive summary (2/3)

### Liquidity of prime equities

- Prime equities meet *the most critical* of the liquid asset attributes specified for fixed income instruments in the BCBS “Framework” and CRD IV.
  - **Transparency** - exceeds that of many Level 1 and 2 assets as currently defined.
  - **Market structure and depth** – outstandings, transaction volumes and the breadth of securities financing markets rival those of many fixed income instruments included in Level 1 and 2.
  - **Risk** – both the inherent and managed market risk of firms’ equity holdings are comparable to, if not less than, some Level 1 and 2 assets.
  - **Performance in stress** – prime equity market volumes and equity securities financing markets performed as well as some Level 1 and Level 2 assets during the recent crisis.
- Liquid asset attributes of prime equities and their performance during the crisis provide insights as to appropriate criteria and haircuts for including them in *the pool of liquid assets*.
  - As with other non-sovereign eligible liquid assets, conservative haircuts should be used in recognizing the liquidity of prime equities.
- While not central bank eligible, equities can be funded through varied, highly liquid and independent structures and markets: stock borrow, repo, total return swap, futures and listed options.

## **Executive summary (3/3)**

### **How prime equities should be included in the LCR**

**Equities that are constituents of major market indices that meet minimum standards should be included in the calculation of the LCR:**

- Subject to minimum market capitalization of index and company;
- Subject to minimum turnover and liquidity of equities;
- Subject to demonstrated wide acceptance and resilience during stress as collateral in the securities financing markets ;
- Criteria could be made flexible to allow inclusion of more indices over time (e.g. major EM indices).

**Such prime equities should be included in the LCR pool of HQLAs using a [30%] minimum haircut, subject to concentration and diversification constraints and additional haircuts for large holdings.**

**Hedge status of equity holdings should not preclude their use in the pool of liquid assets:**

- Wide availability of stress-resilient futures exchanges;
- Availability of prime equity repo market.

**Prime equity securities used for secured financing transactions (SFTs) should be treated in same manner as current HQLAs**

## **Evidence of prime equities as source of liquidity**

Prime equities included in major market indices display many of the liquidity characteristics defined by the BCBS in the 2010 *International Framework for liquidity risk measurements, standards and monitoring*.

Appendix 1 provides in-depth assessments of this comparison. The following pages summarize the key observations made and the empirical evidence compiled.

## **Prime equities derive their liquidity from the basic characteristics of the cash market and the resiliency of equity securities-financing markets**

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### **Cash markets for equities that are constituents of major indexes have:**

- Transparency attributes that often exceed those of many fixed income instruments currently eligible for the LCR. These attributes derive from being listed and traded on regulated exchanges and include: 1) instant price discovery, 2) public availability of intraday pricing, 3) observable bid-offer spreads, and 4) third party review and widely understood eligibility criteria.
- Market structure attributes and transaction volumes in both BAU and stressed environments that compare favorably with many current Level 1 and 2 assets.

### **Equity securities-financing markets are a primary source of liquidity for major market makers.**

- As a result of the transparency and market structure attributes of the cash markets, the securities-financing markets of prime equities are a substantial source of liquidity.
- Empirical evidence indicates that prime equity securities financing markets proved resilient during the recent crisis.
- Extremely liquid futures markets, and OTC markets, provide additional funding sources:
  - In addition to being financed through SFTs, cash equities may be sold or hedged through derivative instruments, with similar funding benefit and benign market risk impact;
  - Because long equity positions held by dealers for inventory management purposes are fully hedged, price volatility is not relevant.

## Market Structure – Cash market size

### Prime equities have outstandings comparable to sovereigns

*Cash markets for prime equities are deep enough to allow firms to liquidate large portfolios of assets easily, either directly in the market or in gray pools of liquidity. Large markets also mean forced sales by troubled firms will have less price impact on other participants.*

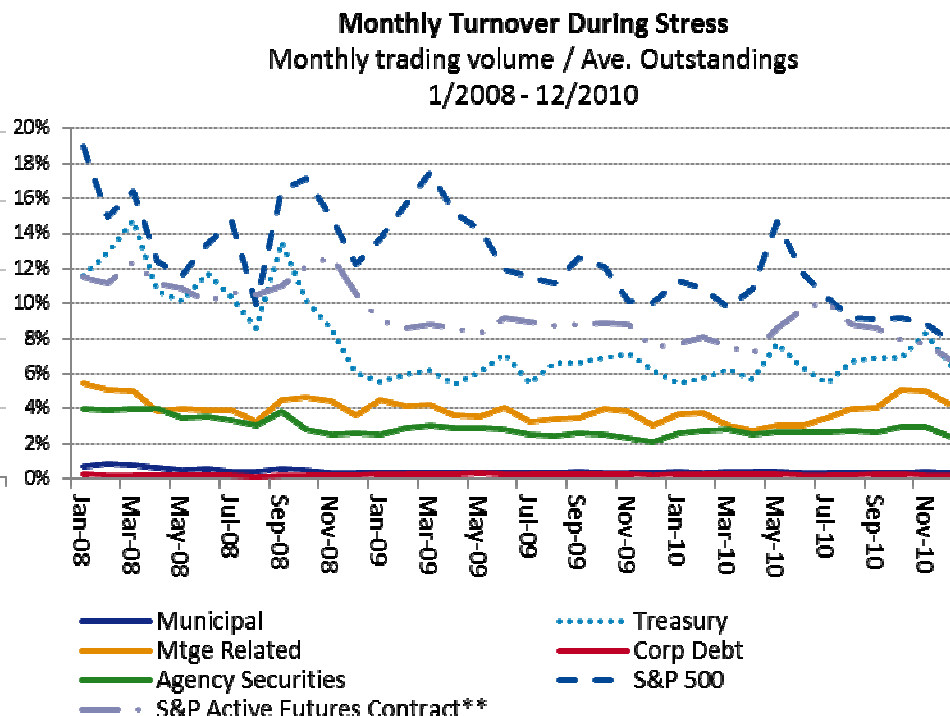
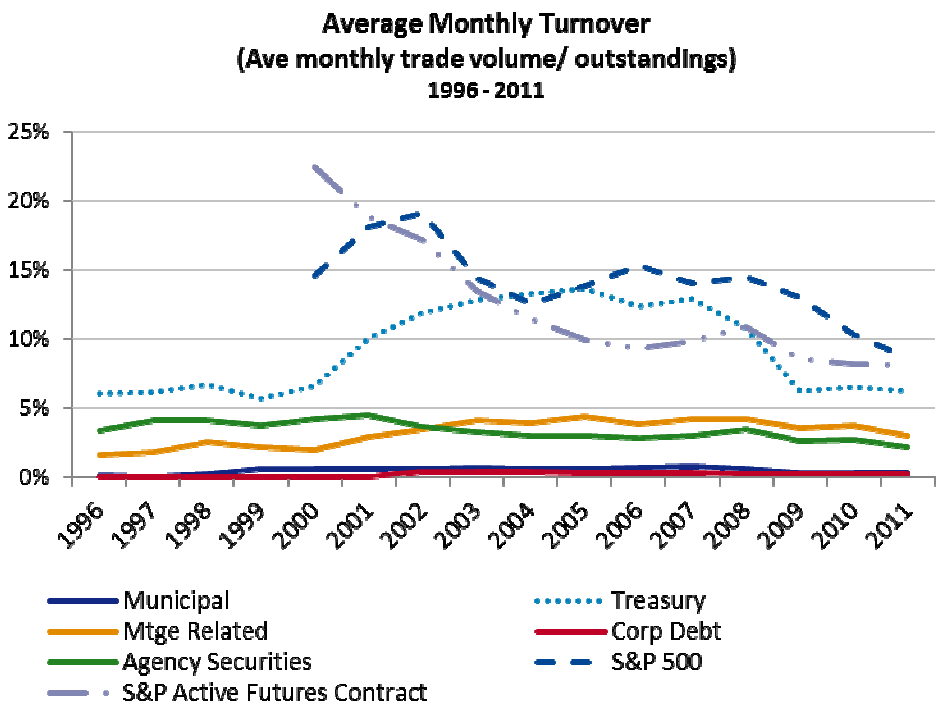
Outstandings of Selected Bond Market Debt (latest figures as of 06/01/2011)	
Country	Treasury/ Sovereign (bn)
US	\$9,466.4
UK	£1,199.5
FRA	€ 1,334.2
Germany	€ 1,079
Switzerland	CHF 91
Japan	¥ 789,342

Market Value of Selected Major Equity Indexes (in billions)		
Market Value as of 3/1/12	Index	Equivalent Futures Contract
S&P 500 INDEX \$	11,383.50	79.63
FT-SE 100 INDEX £	5,931.25	37.71
CAC 40 INDEX €	3,499.73	12.87
DAX 30 INDEX €	6,941.77	28.47
SWISS MARKET INDEX	5,868.49	11.58
NIKKEI 225 ¥	174,960	4615

# Market Structure – Transaction Volumes and Resilience

**Prime equity markets have exhibited transaction volumes and turnover similar to Level 1 and Level 2 assets in both BAU and stressed conditions**

*Turnover of major market index equities compare favorably with some fixed income markets during both BAU and stressed periods.*

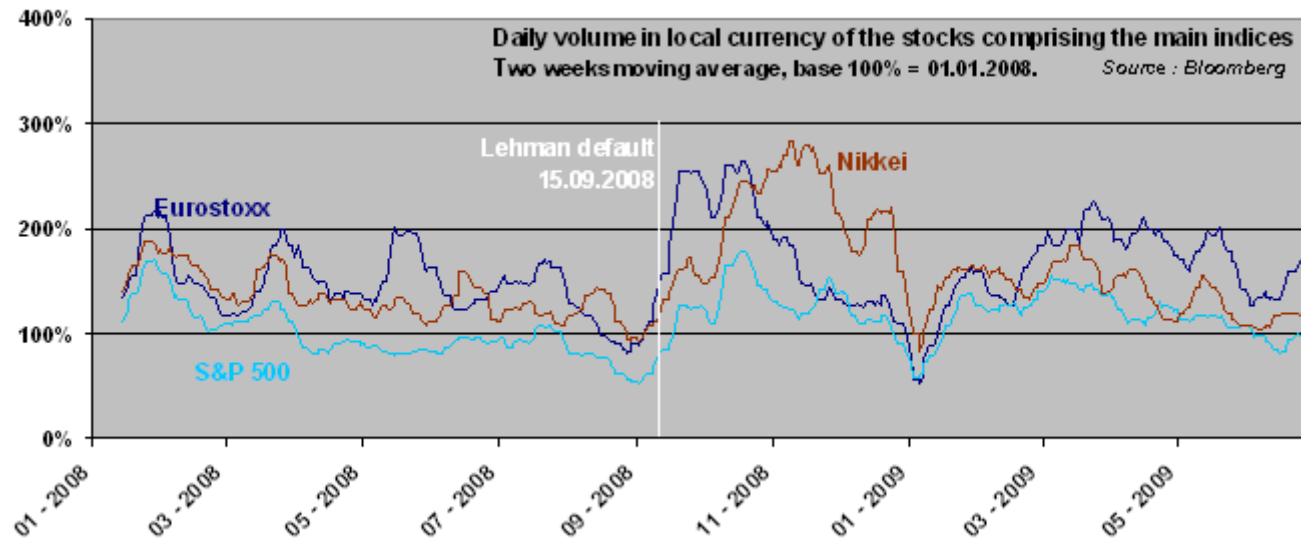


For the S&P Active Futures Contract the 3 month moving average of the turnover was used. This was done to compensate for the cyclical changes in volume that occur as the generic Bloomberg Futures Index rolls from the prior active contract to the current active contract.

## Market Structure – Transaction Volumes and Resilience

### Prime equity markets continued to function during the crisis

- When Lehman defaulted, prime equity liquidity value increased, as the increase in volume more than offset the drop in prices;
- Although volatility increased and markets fell appreciably in the immediate aftermath of Lehman, this period was characterized by strong volumes, with several short rallies providing opportunities to reduce positions;
- Prime equity markets continued to function and facilitated significant deleveraging across the hedge fund and banking sectors; this resiliency is partially explained by the significant level of shorts outstanding and closed out during this period, aiding price discovery and providing liquidity.





## Market Structure – Secured funding markets

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### **As opposed to cash markets, equity secured-funding markets remain mainly OTC:**

- As market is highly standardized, several well-established private sources provide useful and reliable information;
- Members believe regulators could be given access to such market-information sources where publicly available information is insufficient. Data repositories may also provide useful supplementary information.

### **Overall, as shown in the three following slides, the prime equity funding market provides a stable financing sources for prime equities, even in times of stress:**

- The main reason is that the combination of haircuts and liquidity of the underlying collateral provide cash lenders with sufficient comfort.

### **In addition, extremely liquid futures and OTC markets provide other varied, highly liquid and independent financing sources, as illustrated on slides 17-18:**

- An alternative to SFT is to sell the cash components of an index and purchase the index future, or to sell the prime equities and replace them with other hedging instruments such as listed options, total return swaps and other derivatives;
- Similarly, when equities are held as hedges to other liquid instruments, an alternative is to sell the cash equities and sell or unwind the hedged instrument;
- In either case, funding benefit is the same as an SFT, with benign funding and market risk impact.

## Market Structure – Secured funding markets

Prime equity collateral is currently the largest US repo market after government guaranteed or government backed collateral

Data on US repo market from the Federal Reserve of Bank of New York [ <a href="http://www.newyorkfed.org/tripartyrepo/pdf/feb12_tpr_stats.pdf">http://www.newyorkfed.org/tripartyrepo/pdf/feb12_tpr_stats.pdf</a> ]							
Asset Group	Current as of 2/9/2012				Historic as of 5/1/2010		
	Collateral Value (\$ billions)	Share of Total	Concentration by Top 3 Dealers		Collateral Value (\$ billions)	Share of Total	Concentration by Top 3 Dealers
US Treasuries excluding Strips	553.10	31.7%	30.3%		488.5	29.3%	42.3%
US Treasuries Strips	43.57	2.5%	48.8%		43.3	2.6%	49.2%
Agency MBS	621.67	35.6%	30.8%		509.3	30.5%	47.2%
Agency CMOs	135.29	7.8%	39.9%		131.9	7.9%	46.1%
Agency Debentures & Strips	116.99	6.7%	34.3%		166.9	10.0%	38.4%
Total US Treas & Agency	1,470.62	84.3%	na		1,339.9	80.3%	na
Equities	77.06	4.4%	45.6%		78.3	4.7%	60.4%
Corporate Investment Grade	54.27	3.1%	35.1%		83.4	5.0%	39.9%
ABS (Investment & Non Investment Grade)	33.38	1.9%	41.2%		38.8	2.3%	48.1%
CMO Private Label (Investment & Non Investment Grade)	36.81	2.1%	44.9%		42	2.6%	48.4%
Corporate Non Investment Grade	24.41	1.4%	50.9%		37.8	2.3%	52.4%
Money Market	27.86	1.6%	61.5%		29.3	1.8%	70.3%
Other*	19.51	1.1%			18.8	1.1%	
<b>Total</b>	<b>1,743.91</b>				<b>1,668.4</b>		

# Market Structure – Secured funding markets

**Although prime equity repo haircuts increased during the crisis, CGFS and Federal Reserve research indicates that the equity securities financing markets did not shut down as implied by the LCR framework**

At the height of the 2008 crisis, primary-market equities could be used to generate liquidity at haircuts vastly below the 100% treatment mandated by the LCR. Equity financing was resilient for prime equities issued from developed countries. During the crisis, prime haircuts for securities-financing transactions using prime equity collateral reached levels of 15% - 20%. Research conducted by the Federal Reserve shows dealer haircuts were relatively consistent. A tight dispersion of haircut levels indicates that a variety of counterparties accept equities in repo transactions.

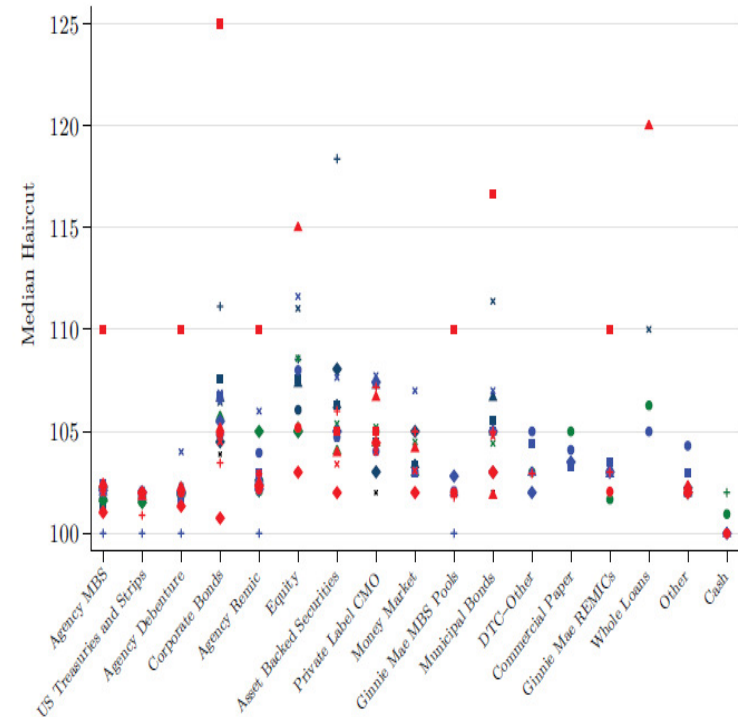
Table 1  
Typical haircut on term securities financing transactions  
In per cent

	June 2007			June 2009		
	Prime <sup>1</sup>	Non-prime <sup>2</sup>	Unrated <sup>3</sup>	Prime <sup>1</sup>	Non-prime <sup>2</sup>	Unrated <sup>3</sup>
<b>G7 government bonds</b>						
Short-term	0	0	0.5	0.5	1	2
Medium-term	0	0	0.5	1	2	3
<b>US agencies</b>						
Short-term	1	2	3	1	2	3
Medium-term	1	2	3	2	5	7
<b>Pfandbrief</b>	0	0	1	1	2	8
<b>Prime MBS</b>						
AAA-rated	4	6	10	10	20	30-100
AA- and A-rated	8	12	25	100	100	100
<b>Asset-backed securities</b>	10	20	20	25	50	100
<b>Structured products (AAA)</b>	10	15	20	100	100	100
<b>Investment grade bonds</b>						
AAA- and AA-rated	1	2	5	8	12	15
A- and BBB-rated	4	7	10	10	15	20
<b>High-yield bonds</b>	8	12	20	15	20	40
<b>Equity</b>						
G7 countries	10	12	20	15	20	25
Emerging economies	15	20	35	20	25	40

<sup>1</sup> Prime counterparty. <sup>2</sup> Non-prime counterparty. <sup>3</sup> Hedge funds and other unrated counterparties.

Source: Study Group survey.

Figure 4: Median Dealer Haircuts by Asset Class



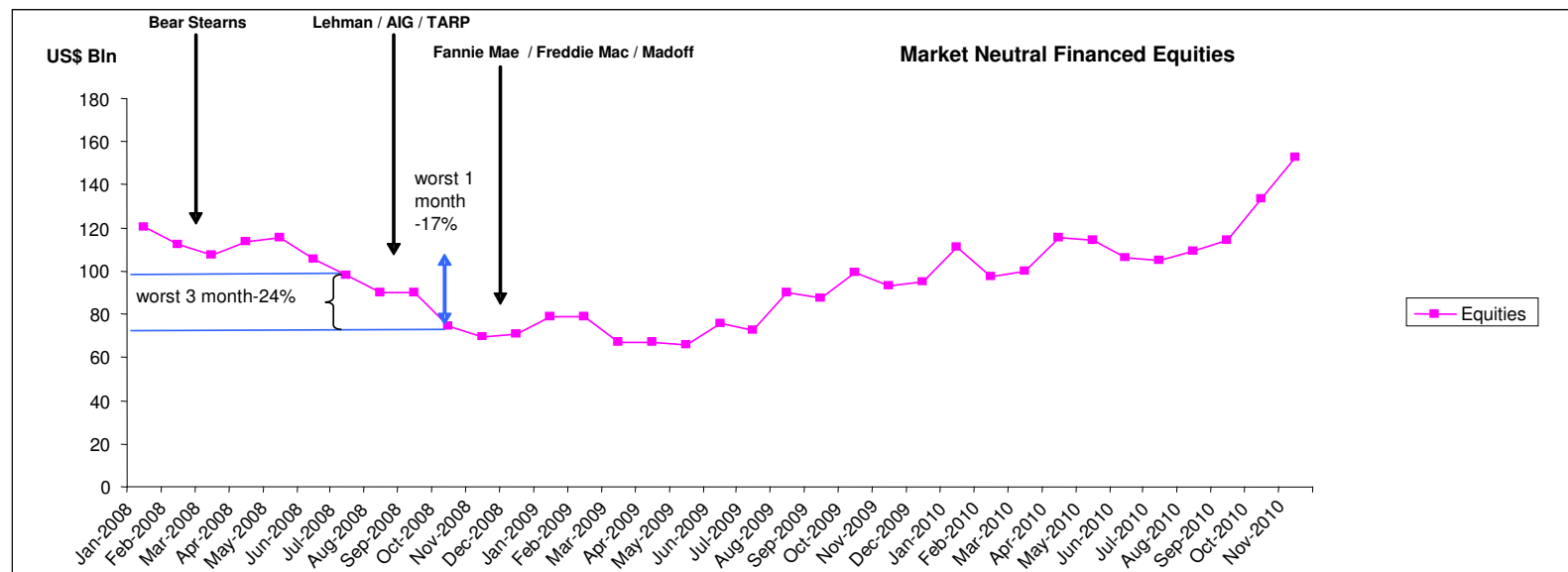
# Market Structure – Secured funding markets

## Prime equity markets proved resilient during the crisis

Data from a major tri-party repo agent indicates that while equity repo volume declined during the crisis, the equity financing market still maintained roughly 80% of its volume.

- After adjusting for price declines and the impact of the Agent’s use of the Federal Reserve’s Primary Dealer Discount Facility (PDCF), the worst 30 day decline in the volume of equity repo volume was 17%.

### Value Of Equity Collateral Used In Securities Financing As Reported For a Major Tri-party Agent Excluding Fed Support Specifically Related To Equity Collateral And Changes In Equity Market Prices



Source: Major Tri-Party Agent "Total ex PDCF" represents value excluding Fed support specifically related to equity collateral

## Risk - Price Risk

Although prime equities exhibit some price risk, they are less complex and more amenable to price hedging and risk management

- The price volatility of prime equities is significantly higher than fixed income, which has been a major objection to including them in the LCR:
  - This volatility is presumably the reason for equities not usually being Central Bank eligible;
  - While Prime Equities are less used as a liquid asset in situations other than Repo, there are some notable exceptions : they are accepted as liquid collateral by major clearing houses such as the OCC (Option Clearing Corp) in the US and Eurex Clearing in Europe, which are among the most recognized clearing houses.

Index Bloomberg Ticker	Short Name	30-Day Volatility Current	30-Day Volatility 5 yr avg	30-Day Volatility Dec 2008
<b>Equity Indices</b>				
	S&P 500	8.7	22.7	68.9
	CAC 40	15.5	25.6	59.3
	DAX	15.1	24.2	59.5
	FTSE 100	11.7	21.9	51.8
	RUSSELL 1000	9.0	22.9	69.6
<b>Generic Gov. Bonds</b>				
	US 10 Year	7.33	9.29	15.27
	US 5 Year	3.16	5.29	7.70
	US 2 Year	0.43	1.56	2.25
	UK 10 Year	8.58	7.16	10.42
	UK 5 Year	3.81	3.96	7.15
	UK 2 Year	1.02	1.91	3.67
	France 10 Year	16.24	5.70	8.38
	France 5 Year	10.32	3.62	5.69
	France 2 Year	4.23	1.62	3.05
	Germany 10 Year	12.03	6.43	9.22
	Germany 5 Year	5.24	3.78	5.85
	Germany 2 Year	1.38	1.65	3.15

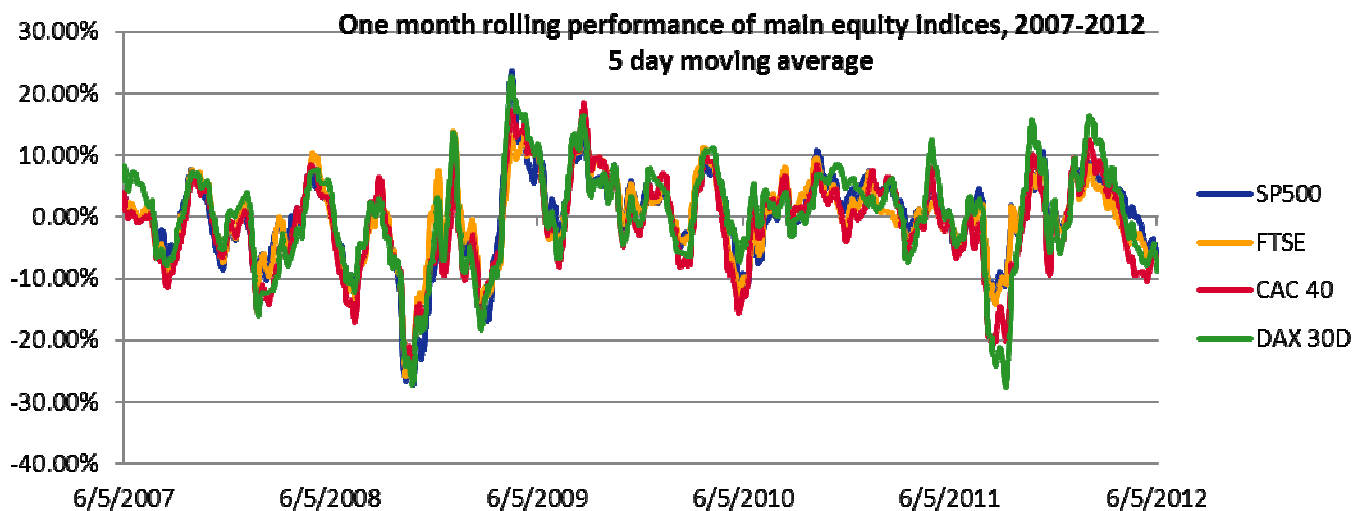
- However, for the LCR, this can be addressed by appropriate haircuts:
  - Equities either serve as hedges, or they are adequately hedged, for market risk purposes;
  - None of the varied monetization structures presented herein affect such market risk;
  - Therefore, the only consequence of the price risk is the uncertainty of the amount cash which may be raised: mitigating this risk is the purpose of the haircut.

## Risk - Price Risk

**The 30% haircut that we propose, matches the worst 30-day drawdown of prime equities indices in the last 12 years\***

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- The purpose of the haircut is to capture the price risk of equities over the one-month horizon of the LCR;
- The 30% haircut is well above all references, whether BAU or in times of stress:
  - Prime equity repos : haircut in BAU is 2 to 8%, up to 15% - 20% at the top of the 2008 crisis;
  - Initial margins for major stock index futures are ca. [5 to 10%];
  - Underlying reason is the exceptional price transparency and deep liquidity of prime equities.
- The 30% haircut matches the one-month drawdown of September 2008, when Lehman defaulted:
  - It should be kept in mind that the damage seen in the Lehman disorderly default would be mitigated by resolution in line with the FSB *Key Attributes of Cross Border Resolution* and many other regulatory changes being implemented in the wake of the crisis.



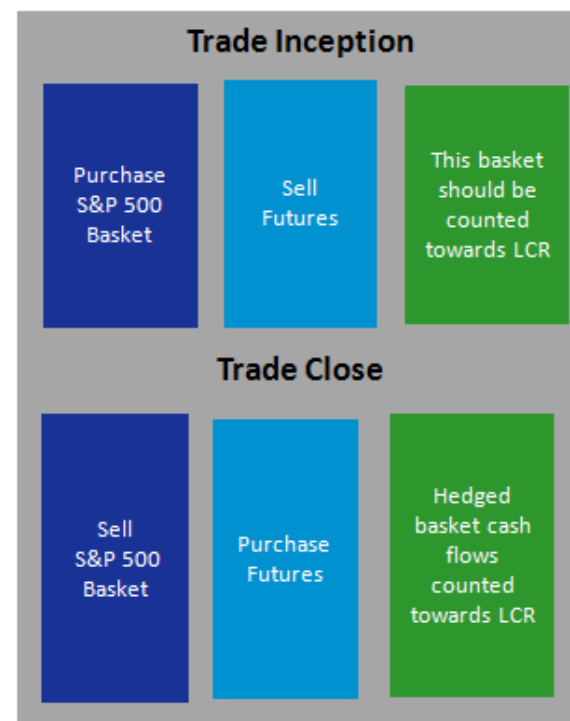
## Market Structure – Alternatives to securities financing markets

### Beyond cash and SFTs firms have other avenues to monetize equity holdings

#### Futures markets provide a material alternative to SFT:

- Firms maintain broad and deep inventories of cash equities in order to enable them to supply their services in a cost effective manner;
- An alternative to SFT is to sell the cash equities and purchase a corresponding future;
  - same funding benefit as SFT;
  - Insignificant increase in market risk.
- The price of the futures contract will offset any mark to market changes in the value of the equity index;
- Both cash and futures transactions take place on liquid, regulated markets;
  - In particular, access to Futures market remains open in case of crises (see next slide).
- OTC derivatives may be used in the same way as futures, taking into consideration sound hedging and risk management practice.
- As a matter of prudent practice the size of the futures trade could be capped at 10% of the futures open interest;

#### Example Risk-Neutral Inventory



*These types of transactions are addressed on slide 25*

#### Another alternative is to unwind hedged derivatives:

- Equities are commonly held as hedges to other instruments, mainly derivatives;
- When these derivatives are liquid, such as futures, an alternative to SFT is to sell the cash equities and unwind (OTC) or sell (futures, listed options) the hedged derivatives;
- Impact is the same as SFT of cash sale + futures;
  - same funding benefit than an SFT;
  - Insignificant increase of market risk.

## Market Structure – Alternatives to securities financing markets

Futures markets remain open and very liquid during crises.

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- During the 2008 crisis the futures market exhibited exceptional liquidity, allowing for prime equity inventory to be unwound within 4 days' time, even more rapidly than would be the case under today's relatively stable market conditions.

Dec 08 Futures Data	
30D Average Notional Volume	\$13,871,552,291
30D Average Notional Open Interest	\$121,558,764,083
10% of Open Interest	\$12,155,876,408
Days to Unwind using 25% Daily Volume	3.51
Current Mar 2012 Futures Data	
30D Average Notional Volume	\$3,643,126,097
30D Average Notional Open Interest	\$80,027,611,832
10% of Open Interest	\$8,002,761,183
Days to Unwind using 25% Daily Volume	8.79

- The table above shows the daily notional volume of the **S&P 500 December 2008** and **S&P 500 Mar 2012** futures contract.



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## **Proposed Treatment of Prime Equities in the LCR**

Given the proven resilience of equity markets and the alternatives available for monetizing prime equity portfolios, prime equities should be considered as liquid assets for the LCR, with conservative minimum criteria for eligibility and haircuts commensurate with the risk to the firm of holding these assets.

## How equities should be included in the LCR

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### Recommendations

Equities that are constituents of major market indices that meet minimum standards should be included in the calculation of the LCR. Minimum criteria regulators could use to identify prime equities include:

- Minimum market capitalization of the index;
- Minimum individual company market cap;
- Minimum annual turnover of underlying companies;
- Minimum daily average turnover;
- Primary listing of underlying companies on major exchanges;
- Demonstrated wide acceptance and resilience during stress as collateral in the securities financing markets evidenced by:
  - Acceptance as collateral for securities financings by at least [100] customers and [80%] of all customers of a primary market repo agent;
  - Demonstrated resilience in a stressed environment such that the acceptance of the index components as collateral by equity liquidity providers does not decline by more than 40% than exhibited during business as usual (BAU) conditions.

*These criteria as applied to major world indexes are set out on the next slide*

Regulators may want to make criteria flexible to allow inclusion of more indices over time.

- Many developing countries have equity markets that are growing quickly and proved resilient through the crisis.

*Interconnectedness concerns can be addressed by limitations on financial institution holdings.*

# Eligibility Criteria for Major Equity Indices

Index	Number of constituents	Main criteria for the constituent eligibility	Index market cap, 01.06.2012*	Range of the market caps of the index constituents, 01.06.2012 **	Distribution of daily values of index volume, from 01.01.2008 to 31.05.2012***	Distribution of the annualised turnover of the index constituents, 01.06.2012****	Distribution of ADV of index constituents, from 01.01.2008 to 31.05.2012*****
S&P 500 (US)	500	500 representative companies actively listed on US stock exchanges	12 140bn USD	1,1 to 528bn USD	87 / 107 / 140 bn USD	138% / 252% / 618%	34 / 112 / 452 mUSD
FTSE 100 (UK)	100	Top 100 companies listed in the UK by market cap	1 735bn GBP	1,4 to 128bn GBP	302 / 406 / 679 bn GBP	34% / 73% / 124%	562 / 2 162 / 11 279 mGBP
CAC 40 (France)	40	Top 40 companies on Euronext Paris by freefloat market cap	763bn EUR	2,8 to 80bn EUR	2,6 / 3,5 / 5,9 bn EUR	55% / 147% / 338%	24 / 69 / 206 mEUR
DAX (Germany)	30	Top 30 German companies by market cap	679bn EUR	3,8 to 59bn EUR	2,5 / 3,5 / 6,5 bn EUR	54% / 133% / 313%	25 / 86 / 291 mEUR
AEX (Netherlands)	25	Top 25 companies on Euronext Amsterdam by trading volume Free float > 25%	406bn EUR	0,7 to 159bn EUR	1,0 / 1,5 / 2,5 bn EUR	46% / 140% / 482%	11 / 39 / 168 mEUR
SMI (Switzerland)	20	20 largest companies traded on the Swiss exchange	778bn CHF	4,7 to 180bn CHF	1,8 / 2,6 / 5,3 bn CHF	51% / 88% / 156%	23 / 87 / 395 mCHF
Bel 20 (Belgium)	20	20 representative companies of Euronext Brussels Free float > 15% & market cap > 200,000 x index	185bn EUR	0,8 to 85bn EUR	0,3 / 0,4 / 0,6 bn EUR	26% / 55% / 229%	1 / 9 / 61 mEUR
TSX 60 (Canada)	60	60 representative companies listed on the Toronto Stock Exchange	1 078bn CAD	2,8 to 72bn CAD	3,5 / 4,7 / 6,2 bn CAD	56% / 130% / 254%	12 / 52 / 187 mCAD
MIB 40 (Italy)	40	40 representative companies on the Borsa Italiana, among most actively traded Free float > 30%	273bn EUR	0,8 to 62bn EUR	1,6 / 2,5 / 4,3 bn EUR	72% / 178% / 531%	4 / 22 / 190 mEUR
Nikkei 225 (Japan)	225	Top 225 companies on the Tokyo Stock Exchange	161 544bn JPY	24,3 to 10 378bn JPY	713 / 1 026 / 1 749 bn JPY	76% / 152% / 399%	507 / 2 413 / 11 567 mJPY
OMX 30 (Sweden)	30	Top 30 on the Stockholm Stock Exchange by trading volume	3 382bn SEK	16,9 to 365bn SEK	8 / 11 / 18 bn SEK	30% / 106% / 209%	100 / 298 / 857 mSEK
Stoxx 600 (Europe)	600	600 European companies from 18 countries	7 011bn EUR	0,6 to 363bn EUR	405 / 543 / 915 bn EUR	42% / 154% / 8877%	4 / 41 / 2 131 mEUR
HSI (Hong Kong)	48	Up to 50 representative companies of the Hong Kong stock exchange with largest market cap and most actively traded	16 741bn HKD	15,9 to 2 072bn HKD	17 / 25 / 40 bn HKD	23% / 47% / 88%	73 / 271 / 1 451 mHKD

\* Sum of the market capitalisation of all index constituents

\*\* Market capitalisation of the two companies with the smallest and largest market cap among all index constituents

\*\*\* First, middle and last decile of the distribution of index liquidity (i.e. the sum of the ADV -Average Daily Volume- of the indice's constituents) across all days from 01.01.2008 until 30.05.2012

\*\*\*\* First, middle and last decile of the distribution of the annualised turnover (or velocity, i.e. value of sum of the ADV from 01.01.2011 until 31.05.2012 divided by the market cap as of 01.06.2012, annualised), across all constituents

\*\*\*\*\* First, middle and last decile of the distribution of ADV across all days from 01.01.2008 until 30.05.2012 and across all constituents

# Acceptance of equity indices by repo clients

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Equity Index	Clients accepting this Index	Percentage of Acceptance
AMSTERDAM EXCHANGE INDEX	161	86.10%
CAC 40 INDEX	170	90.91%
DAX 30 INDEX	166	88.77%
FT-SE 100 INDEX	152	81.28%
S&P 500 INDEX	182	97.33%
SWISS MARKET INDEX	156	83.42%
<b>Equity accepting clients</b>	<b>187</b>	
Source: Major Tri-party agent		

## How prime equities could be included in the LCR

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### Recommendation

#### **Including prime equities in each firm's pool of liquid assets: risk management requirements**

- Prime equities could be included in the LCR pool of HQLAs using a [30%] haircut and subject to the following concentration limits – *see slides 15, 16, and 18 for supporting data*;
  - Issuer specific – a firm's holdings of equity securities of any one issuer not to exceed [5%] of all equity securities included in the pool.
  - The aggregate concentration limit for prime equities should:
    - Limit the total amount of all equity securities held in the pool of liquid assets to no more than [30%] of the entire pool.
- Hedge status of prime equity holdings should not preclude their use in the pool of liquid assets given the wide availability of stress-resilient futures exchanges (see slides 10 and 17);
- Large holdings relative to market turnover should be subject to additional haircuts:
  - E.g. holding between D and D+1 Average Daily Volumes should be subject to additional D x 15% haircut;
  - Above a certain threshold (e.g. 5 times ADV) holdings become ineligible.
- Equities should be subject to the same requirements regarding periodic monetization and proven ability to use in times of stress as other HQLAs.

# The Treatment Of Prime Equities Should Be Consistent In The Numerator And Denominator

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## **Consistent with our arguments for prime equities to be considered HQLAs under certain conditions, consistent treatment of prime equities which are underlying equity repos should be adopted.**

- The LCR makes specific mention of repos (§84-87 of BCBS 188) and of reverse repo and borrow market (§108 - 109) :
  - » Equity repos are subject to a 100% outflow assumption, given they are not currently considered HQLAs.
  - » Equity reverse repos are considered at 100% inflow, unless they are rehypothecated, or tied to short coverage (§ 109).
- Banks will be able to continue to utilize the repo market to finance their equity assets as evidenced by the continued acceptance of equities by counterparties at reasonable haircut levels (slides 12 – 15).
- In any circumstances, equity repo will not perform worse than cash equities.
  - » If counterparties don't roll repos, firm is left with cash equities and can access cash or futures markets.
- We suggest maintaining the LCR assumption on repos, but to add to the HQLA pool those securities returning to the firm as a consequence of the repos not being rolled, subject to the same concentration and diversification criteria as previously described.
- Treatment of reverse repos should be unchanged: dealers will have the opportunity not to roll any reverse repos other than those captured by §109.

## **Treatment of cash flows of derivatives should also be treated consistently.**

- Net cash outflows arising from derivatives should be accounted for as per BCBS §88.
- Such net cash outflow should take into account the cash flows resulting from the unwind of the hedges of such derivatives:
  - » Example: Bank is long inventory stock hedged with short futures. The futures expire and the bank sells the hedged inventory into the market; under sound risk principles the bank will also sell the hedge into the market. As this asset is hedged it bears no price risk and as such it should be considered an expected cash inflow.
- Whenever cash equities have been accounted for as HQLA, the portion accounted for as HQLA should not be double counted in the net cash outflows:
  - » In the above example, if the underlying of the futures are HQLA, then conservative standards could require only [30%] allowed to be taken as a cash inflow offsetting the flow resulting from the expiry of the futures.

**Consistent with IIF statements and the *IIF Proposed Methodology for Defining Additional Eligible Liquid Assets*, the BCBS could also consider giving equities credit for creating inflows in the denominator, even if the essential decision of the BCBS is against specifically designating them as liquid assets. This would recognize the ability of firms to monetize equity portfolios if required.**

# Treatment of Matched Equity Transactions

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**The IIF has consistently advocated more realistic treatment of matched transactions in the Basel liquidity ratios. Long equity positions hedged with certain derivatives have self-monetization features that generate cash on the subsequent rollover date regardless of market liquidity.**

*Examples include liquidation of equities via special exchange facilities pairing them with a maturing futures short position and liquidation of equities upon maturity or early termination of an OTC derivative (see slide 17 and Appendix 2).*

The equity liquidation, together with the inflow or outflow from derivative settlement, provides an inflow sufficient to offset funding outflows entirely.

If the associated flows occur within the 30-day horizon of the LCR then the ability of the transaction to generate inflows without reliance on market liquidity or the underlying economic performance of the equities should be properly recognized in the denominator.

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# Appendix I: Equities in the context of current Basel conception of liquidity



# Characteristics of High-Quality Assets as Defined by Basel and Applicability to Prime Equities – 2010 Basel Liquidity Standards

## From the Basel Liquidity Framework (paragraph 22a):

“**Low credit and market risk:** assets that are less risky tend to have higher liquidity. High credit standing of the issuer and a low degree of subordination increases an asset’s liquidity. **Low duration, low volatility, low inflation risk** and **denomination in a convertible currency** with low foreign exchange risk all enhance an asset’s liquidity. “

### With Respect to Prime Equities:

Prime equities have established volatility benchmarks such as the VIX which is a widely accepted index for S&P500 volatility. With respect to duration risk, the tenor to which a transaction is tethered impacts its effective duration. While equities are by definition subordinated, their very active markets and the diversified nature of major indices makes this less relevant than with other instruments.

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## From the Basel Liquidity Framework (paragraph 22b):

“**Low market concentration:** a **diverse group of buyers and sellers** in an asset’s market increases the reliability of its liquidity. “

### With Respect to Prime Equities:

Equities in major indices such as the S&P500 have identifiable buyers and sellers through data provided by exchanges. For example: IBM, 14% of shares turn over monthly with 62.8% of the outstanding owned by institutions based, on information published in Bloomberg.

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## From the Basel Liquidity Framework (paragraph 22b):

“**Active and sizable market:** the asset should have active outright sale or repurchase agreement (repo) markets at all times (which means having **a large number of market participants** and a **high trading volume**). There should be historical evidence of **market breadth** (price impact per unit of liquidity) and **market depth** (units of the asset that can be traded for a given price impact).“

### With Respect to Prime Equities:

The equity tri-party repo market is both active and deep. At the height of the 2008 crisis equities could be entered as collateral in tri-party agreements at haircuts far less than 100% and in some cases less than fixed income products.

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## From the Basel Liquidity Framework (paragraph 29):

“A bank should **periodically monetize** a proportion of the assets in the stock **through repo or outright sale** to the market in order to test its access to the market, the effectiveness of its processes for monetization, and the usability of the assets during a period of stress. “

### With Respect to Equities:

It is standard industry practice to do this daily with our equity collateral; borrow rates in stock loan help project which equities may be more or less liquid in the near future as do tri-party collateral haircuts. Additional insight into daily liquidity is provided through frequent liquidation of inventory management transactions and the ability to substitute through futures markets.

# Characteristics of High-Quality Assets as Defined by Basel and the Applicability towards Prime Equities

## From the Basel Liquidity Framework:

“**Presence of committed market makers:** quotes will most likely be available for buying and/or selling a high-quality liquid asset. “

## With Respect to Prime Equities:

Equity Exchanges provide for a pool of committed market makers that are readily identifiable. As examples – AT&T [ticker: T] 13 exchanges; Microsoft [ticker: MSFT] 20 exchanges; Ford [ticker: F] 21 exchanges. Listing on exchanges provides for committed market makers who create liquidity, as well as widely understood markets in which investors participate freely.

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## From the Basel Liquidity Framework:

“**Low correlation with risky assets:** the stock of high-quality liquid assets should not be subject to **wrong-way (highly correlated) risk**. For example, assets issued by financial institutions are more likely to be illiquid in times of liquidity stress in the banking sector. “

## With Respect to Prime Equities:

As Basel defines risky assets the correlations to Prime Equities can be determined. Daily price data going back 20 years is available on databases such as Bloomberg, this data can be used to determine correlation to risky assets.

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## From the Basel Liquidity Framework:

“High-quality liquid assets should also ideally be eligible at central banks for intraday liquidity needs and overnight liquidity facilities. ....It should be noted however, that **central bank eligibility does not by itself constitute** the basis for the categorization of **an asset as a “high-quality liquid asset.”**”

## With Respect to Prime Equities:

Firms should be able to count as liquid a stock of assets than can be liquidated in the open market without reliance on a central bank. Central bank eligibility of an asset should be sufficient rather than necessary for inclusion as a HQLA in Basel III.

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## From the Basel Liquidity Framework:

“**Listed on a developed and recognized exchange market:** being listed increases an asset’s transparency. “

## With Respect to Prime Equities:

Major index members are by definition listed, often on more than one exchange, allowing for far greater price transparency than most fixed income securities.

## Secured Funding comparison between Prime Equities and Level 2 Corporate and Covered Bonds

Market Environment	Equity	Level 2 Corporate/Covered Bonds
Liquidity of Market during BAU Period	Highly liquid	Highly liquid
Liquidity of Market during Stressed Period	Liquid, across most Equities	Somewhat liquid
Number of Liquidity providers	High	High
Trade Structures available to monetize asset	Multiple	Principally Repo
Asset Characteristics		
Transparency of Asset Price	Good and Intraday	Good and Intraday
Transparency of Asset Liquidity	Good and Intraday	Good and Intraday
Traded Volume of Asset during Stressed Period	Very high across most Equities	Volatile across asset class
Risk Characteristics		
Exit Strategy / Time to Liquidate asset class	Quick to sell asset	Potentially unknown liquidation period
Diversification of Collateral Basket	Extremely high, with limited exposure to any single name	Moderate, with potential to have high exposure to any single name
Geographical Diversity of Collateral Basket	Typically global	Typically regional

- The financing of Bonds has a material dependency on one strategy. In contrast, Equities can navigate between trade types to ensure consistent monetization of its asset class;
- The Equity financing market typically limits exposure to a single Equity within the Collateral basket to 3 day of the average daily traded volume, whereas for Corporate Bonds, typical maximum exposure is 10% of the entire issue size.

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# Appendix II: RBC Case Study on Equities in Basel Liquidity Standards

Submitted to Basel WGL for May 10, 2011 Meeting

# Case Study 3: Treatment of Equities in LCR & NSFR

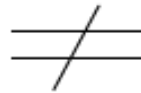
From RBC's perspective, some liquidity value should be attributed to top liquid equities traded on major exchanges

During the last crisis, equities were the most liquid type of securities after government bonds

Appropriate inflow liquidity value is especially warranted in the following example:

**Example: Long equity position 100% hedged against CME short futures and/or CBOE index options**

IOSCO / FSB / G20 encouraging increased standardization and volume of trading on exchanges and via central clearing counterparties (CCPs)



By assigning no liquidity value to equities hedged against exchange traded derivatives BCBS implicitly assumes that exchanges & CCPs will fail to perform their delivery / monetization function at contract maturity

- For the life of the trade, liquidity risk is limited as any loss on the value of equities is offset by positive daily variation margin on derivatives
- Equities can be sold on expiration without exposure to regular market risks. Index options expire every month & index futures every 3rd month, cash settled to the "Special Opening Quotation," which allows firms to monetize equity positions with riskless Market-on-Open orders.

- **As demonstrated above, having assets hedged against derivatives can at times increase the liquidity value of an asset**
- **Future QIS data collection would benefit from more differentiation between various equity strategies and types of equities**
- **Top equities should get selected inflow liquidity value in the LCR denominator**

