FINANCIAL
STABILITY
BOARD

Strengthening Oversight and Regulation of Shadow Banking

Regulatory framework for haircuts on non-centrally cleared securities financing transactions

14 October 2014

Preface

Strengthening Oversight and Regulation of Shadow Banking

In response to the G20 Leaders' request at the Seoul Summit in November 2010, the Financial Stability Board (FSB) has been developing policy recommendations to strengthen oversight and regulation of shadow banking. In particular, the FSB has focused on five specific areas in which policies are needed to mitigate the potential systemic risks associated with shadow banking:

(i) to mitigate *the spill-over effect between the regular banking system and the shadow banking system*;

(ii) to reduce the susceptibility of *money market funds (MMFs)* to "runs";

(iii) to assess and align the incentives associated with *securitisation*;

(iv) to dampen risks and procyclical incentives associated with *securities financing transactions such as repos and securities lending* that may exacerbate funding strains in times of market stress; and

(v) to assess and mitigate systemic risks posed by *other shadow banking entities and activities*.

On 29 August 2013, the FSB published the report *Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos*[1] that set out policy recommendations for addressing financial stability risks in relation to securities financing transactions (the above (iv)). The report also included consultative proposals on a regulatory framework for haircuts on certain non-centrally cleared securities financing transactions.

The documents published on 14 October 2014 refine the regulatory framework for haircuts based on the analysis of consultative responses. They comprise:

- **Regulatory framework for haircuts on non-centrally cleared securities financing transactions.** This document sets out the finalised regulatory framework for haircuts on certain non-centrally cleared securities financing transactions. It also includes a consultative proposal on the application of numerical haircut floors to cover non-bank-to-non-bank transactions backed by collateral other than government securities.
- **Background document on procyclicality of haircuts based on the evidence from the first stage of the quantitative impact study (QIS1).**[2] This document examines the procyclicality of haircuts on non-centrally cleared securities financing transactions and their role during the global financial crisis based on the QIS1 data.

[1] http://www.financialstabilityboard.org/publications/r_130829b.pdf

[2] http://www.financialstabilityboard.org/publications/r_141013b.pdf

The FSB will complete its work on the application of numerical haircut floors to non-bank-to-non-bank transactions and set out details of how it will monitor implementation by the second quarter of 2015.

Background

The "shadow banking system" can broadly be described as "credit intermediation involving entities and activities (fully or partially) outside the regular banking system" or non-bank credit intermediation in short.[3] Such intermediation, appropriately conducted, provides a valuable alternative to bank funding that supports real economic activity. But experience from the crisis demonstrates the capacity for some non-bank entities and transactions to operate on a large scale in ways that create bank-like risks to financial stability (longer-term credit extension based on short-term funding and leverage). Such risk creation may take place at an entity level but it can also form part of a chain of transactions, in which leverage and maturity transformation occur in stages, and in ways that create multiple forms of feedback into the regular banking system.

Like banks, a leveraged and maturity-transforming shadow banking system can be vulnerable to "runs" and generate contagion risk, thereby amplifying systemic risk. Such activity, if unattended, can also heighten procyclicality by accelerating credit supply and asset price increases during surges in confidence, while making precipitate falls in asset prices and credit more likely by creating credit channels vulnerable to sudden loss of confidence. These effects were powerfully revealed in 2007-09 in the dislocation of asset-backed commercial paper (ABCP) markets, the failure of an originate-to-distribute model employing structured investment vehicles (SIVs) and conduits, "runs" on MMFs, and a sudden reappraisal of the terms on which securities lending and repos were conducted. But whereas banks are subject to a well-developed system of prudential regulation and other safeguards, the shadow banking system is typically subject to less stringent, or no, oversight arrangements.

The objective of the FSB's work is to ensure that shadow banking is subject to appropriate oversight and regulation to address bank-like risks to financial stability emerging outside the regular banking system while not inhibiting sustainable non-bank financing models that do not pose such risks. The approach is designed to be proportionate to financial stability risks, focusing on those activities that are material to the system, using as a starting point those that were a source of problems during the crisis. It also provides a process for monitoring the shadow banking system so that any rapidly growing new activities that pose bank-like risks can be identified early and, where needed, those risks addressed. At the same time, given the interconnectedness of markets and the strong adaptive capacity of the shadow banking system, the FSB believes that policies in this area necessarily have to be comprehensive.

[3] Based on such features, some authorities or market participants prefer to use other terms such as "market-based financing" instead of "shadow banking". The use of the term "shadow banking" is not intended to cast a pejorative tone on this system of credit intermediation. However, the FSB is using the term "shadow banking" as this is the most commonly employed and, in particular, has been used in the earlier G20 communications.

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Introduction

Based on the initial recommendations to strengthen oversight and regulation of the shadow banking system as set out in its report submitted to the G20 in October 2011,[4] the Financial Stability Board (FSB) set up the Workstream on Securities Lending and Repos (WS5) to assess financial stability risks and develop policy recommendations, where necessary, to strengthen regulation of securities lending and repos.

On 29 August 2013, the FSB published the report *Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos*[5] (hereafter August 2013 Report) that set out policy recommendations for addressing financial stability risks in relation to securities lending and repos (hereafter securities financing transactions). These included: standards and processes for data collection and aggregation at the global level to enhance transparency of securities financing markets, which is currently being taken forward by an FSB data expert group that will propose standards and processes by November 2014; minimum standards on cash collateral reinvestment; requirements on re-hypothecation; minimum regulatory standards for collateral valuation and management; and policy recommendations related to structural aspects of the securities financing markets (central clearing and possible changes in the bankruptcy law treatment of securities financing transactions). The FSB also agreed in March 2014 implementation dates for these recommendations as set out in Recommendations 1 to 11 in Annex 1 of this document.

Although most of the policy recommendations had been finalised, the August 2013 Report included consultative proposals on a regulatory framework for haircuts on certain non-centrally cleared securities financing transactions. The FSB invited comments from the public on these proposals by 28 November 2013 and consultation responses were received from more than 20 respondents including trade associations representing securities borrowers and lenders, intermediaries in the securities lending and repo markets, asset managers, market infrastructure providers, public authorities and individuals.[6]

In finalising its regulatory framework for haircuts, the FSB focused on addressing the financial stability issues as described in Section 1 of the August 2013 Report and in the interim report *Securities Lending and Repos: Market Overview and Financial Stability Issues*[7] published in April 2012. In addition, the FSB has endeavoured to ensure that its recommendations minimise the risk of regulatory arbitrage as well as undue distortion of markets, and are consistent with other international regulatory initiatives. In particular, the FSB launched in April 2013 a two-stage quantitative impact study (QIS) to assess the potential impact and unintended consequences associated with its recommendations on minimum haircut methodology standards and numerical haircut floors. The first stage of this QIS (QIS1) took place in April-June 2013 and consisted of collecting detailed historical

4 http://www.financialstabilityboard.org/publications/r_111027a.pdf

5 http://www.financialstabilityboard.org/publications/r_130829b.pdf

6 All comments received are published on the FSB website (https://www.financialstabilityboard.org/publications/c_131220.htm).

7 http://www.financialstabilityboard.org/publications/r_120427.pdf

haircut data from a small pool of large financial intermediaries globally so as to calibrate the proposed minimum haircut recommendations.[8] The FSB subsequently conducted the second stage of the QIS (QIS2) in November 2013 - January 2014 to assess the scope and quantitative impact of the consultative proposals on a wider set of market participants including banks and broker-dealers, agent-lenders, and non-bank entities. Annex 2 summarises the results of the QIS2.

The finalised regulatory framework for haircuts on non-centrally cleared securities financing transactions consists of: (i) qualitative standards for methodologies used by market participants that provide securities financing to calculate haircuts on the collateral received (Sections 2); and (ii) a framework of numerical haircut floors that will apply to non-centrally cleared securities financing transactions in which financing against collateral other than government securities is provided to entities other than banks and broker-dealers (hereafter "non-banks") (Section 3).

After consideration of the consultation findings and QIS results, the levels of numerical haircut floors have been raised as shown in Table 1 in Section 3.2. The revised levels have been calibrated based on (i) the QIS1 and QIS2 results, (ii) existing market and central bank haircuts,[9] and (iii) data on historical price volatility of different asset classes (which is summarised in Annex 3). Additionally, another maturity bucket has been introduced for debt securities with a residual maturity of more than ten years.

To ensure shadow banking activities are fully covered, to reduce the risk of regulatory arbitrage, and to maintain a level-playing field, the FSB believes it is essential to expand the scope of its numerical haircut floors to cover securities financing transactions between non-banks or "non-bank-to-non-bank transactions".[10] In this regard, the FSB is now issuing a consultative proposal on the application of numerical haircut floors to cover non-bank-to-non-bank transactions backed by collateral other than government securities[11] (Annex 4).

Application of the regulatory framework for haircuts may vary in details across jurisdictions, depending on existing regulatory frameworks and approaches adopted by national/regional authorities for implementing the numerical haircut floors. The FSB members are committed to timely implementation of the framework and consistency of outcomes across jurisdictions. Such implementation at the national and regional level will be monitored through the FSB process as set out in Section 3.6.

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8 See Annex 3 of the August 2013 Report for the summary of QIS1 results.

9 For example, see http://www.frbdiscountwindow.org/discountmargins.cfm?hdrID=21&dtlID=83 and http://www.newyorkfed.org/banking/tpr_infr_reform_data.html.

10 The August 2013 consultative proposals had limited the scope of numerical haircut floors to transactions in which banks and broker-dealers (hereafter "banks") provide securities financing to non-banks or "bank-to-non-bank transactions" in short.

11 Government securities are defined as claims on sovereigns under the Basel III standardised approach. This includes claims on: central governments (and their central banks); certain non-central government public sector entities (PSEs) identified as sovereigns in the standardised approach; multilateral development banks (MDBs) that meet the criteria for a 0% risk-weight under the standardised approach; the Bank for International Settlements (BIS); the International Monetary Fund (IMF); the European Central Bank (ECB); and the European Union (EU).

The FSB welcomes comments on these proposals set out in Annex 4. Comments and responses to questions should be submitted by **15 December 2014** by email to fsb@bis.org or by post (Secretariat of the Financial Stability Board, c/o Bank for International Settlements, CH-4002, Basel, Switzerland). All comments will be published on the FSB website unless a commenter specifically requests confidential treatment.

1 Key principles

The regulatory framework for haircuts on non-centrally cleared securities financing transactions is intended to limit the build-up of excessive leverage outside the banking system, and to help reduce procyclicality of that leverage.

The framework comprises two complementary elements:

(i) Qualitative standards to be incorporated into existing or new regulatory standards for methodologies used by market participants that provide securities financing to calculate haircuts on the collateral received (including additional guidance for methodologies used by market participants to calculate margins on a portfolio basis); and

(ii) A framework of numerical haircut floors that will apply to non-centrally cleared securities financing transactions in which financing against collateral other than government securities [12] is provided to non-banks. Centrally-cleared securities financing transactions and financing provided to banks and broker-dealers subject to adequate capital and liquidity regulation on a consolidated basis are excluded.[13]

Market participants should establish appropriate internal processes and procedures to ensure haircuts are set in accordance with the proposed framework.

2 Qualitative standards for methodologies used by market participants to calculate haircuts

2.1 Standards for methodologies to calculate haircuts on an individual asset basis

(i) Haircuts should be based on the market risks of the assets used as collateral and be calibrated at a high confidence level, using a long historical time period that includes at least one stress period, in order to cover potential declines in collateral values during liquidation.

Haircut methodologies should be designed to limit potential procyclical fluctuations in haircuts, specifically by moderating the extent to which they decline in benign market environments (for example characterised by low market volatility and rising asset prices) and thus mitigate the magnitude of the potential increase in volatile markets. Haircuts should be set to cover, at a high level of confidence, the maximum expected decline in the market price of the collateral asset, over a conservative liquidation horizon before a transaction can be closed out. Haircuts may be calculated either on a transaction level basis or at the collateral portfolio level depending on individual circumstances.

Haircut methodologies should not be based on a rolling short window, e.g. two years or less, of recent price data. Rather, the maximum price decline used to derive the applicable haircut

[12] See footnote 11.

[13] On an exceptional basis, national/regional authorities may also exclude insurance companies subject to regulatory capital and liquidity requirements and that have access to central bank facilities as appropriate.

should be calculated using a long time series of price data that covers at least one stress period. If such historical data is either unavailable or unreliable, stress simulations or data for other similar asset types as a proxy (including at least one stress period and with prudent adjustments made as appropriate) should be used. This recommendation goes beyond the current Basel III requirements for banks permitted to calculate regulatory haircuts using "repo VAR" models or "own estimates", which require the use of at least two years of data.

Where feasible, historical bid-ask spreads and pricing uncertainty should also be examined to consider the possibility that stressed market conditions may lead to a widening of bid-ask spreads and a reduction in the market liquidity of a given type of collateral.

The assumed liquidation horizon should be conservative, reflect the expected liquidity or illiquidity of the asset in stressed market conditions, and depend on the relevant market characteristics of the collateral, such as trading volumes and market depth.

(ii) Haircuts should capture other risk considerations where relevant

Haircuts should reflect primarily the risk of fluctuations in the collateral price (market risk) as described in (i) above, but also take into account other relevant risk considerations, such as the risk of liquidating large concentrated positions (liquidation risk), and the "wrong-way risk"[14] between collateral value and counterparty default. Specific characteristics of the collateral, which include asset type, issuer creditworthiness, residual maturity, price sensitivity (such as modified duration), optionality, complexity of structure, expected liquidity in stressed periods and the frequency of collateral valuation and margining, should also be taken into account. The creditworthiness of, and existing exposures to, counterparties may also be considered as additional factors in setting the appropriate haircut over and above the haircut derived from collateral-specific considerations (i.e. counterparty credit considerations may lead to higher haircuts).

Haircuts should also factor in the foreign exchange risk in cases where there is a currency mismatch between the currency of denomination of the collateral and the counterparty exposure (e.g. cross-currency repos). The historical volatility of the exchange rate for the relevant currency pair, including in stress periods, should be used to determine the additional haircut required in such cases.

The correlation between securities accepted as collateral and securities loaned in securities lending transactions should also be taken into account, where relevant.

2.2 Additional guidance for methodologies to calculate haircuts on a portfolio basis

Some market participants calculate margin on a portfolio basis, for example for margin lending in prime brokerage relationships, where portfolios may include long and short positions in securities and related derivatives.

Similar to haircut methodologies discussed in Section 2.1, methodologies for portfolio margin calculation should not be procyclical. In particular, methodologies should not lead to an

[14] "Wrong-way risk" arises when the exposure to a particular counterparty is positively correlated with the probability of default of the issuer of the collateral due to the nature of the transactions with the counterparty.

automatic decline in margin requirements as the prices of assets in the portfolio increase or as the (actual or implied) volatility of asset prices in the portfolio decreases.

Further, when setting margin requirements for different counterparties and portfolios, market participants should consider the following:

- market risk of the portfolio (as measured by, for example, the change in the value of the portfolio if market indices rise or fall by defined percentages);
- portfolio concentration by geographies, economic sectors and individual issuers;
- illiquidity of the portfolio (for example, portfolios may be illiquid when positions are concentrated or large relative to either the outstanding amount or the average trading volume); and
- risks arising from non-correlated price and spread relationships between lent securities and collateral portfolio assets.

Methodologies should include robust stress testing of margin requirements against a range of historical and hypothetical stress scenarios. Those stress scenarios should be designed or selected with due consideration to the particular characteristics of the portfolios being stress-tested. Regular back testing of margins should also be carried out.

Market participants should ensure that appropriate internal processes and procedures are in place when they calculate margin on a portfolio basis. Such processes and procedures should be well-documented, source reliable prices and parameters, and include robust controls to identify any shortfalls in the margin methodologies.

Further, regulators should also consider testing the adequacy of margin methodologies used by market participants through regular hypothetical portfolio exercises in which relevant market participants submit their aggregate margin requirements on a number of archetypal portfolios. The objectives of such an exercise would be to identify any market-wide changes in levels of margin requirements over time as well as any outlier firms with unusually low margin requirements.

Recommendation 12: **Regulatory authorities should set qualitative standards for the methodologies that firms use to calculate collateral margins/haircuts, whether on an individual transaction or portfolio basis, and should review those standards against the guidance set out above by the end of 2017. In particular, regulatory authorities should seek to minimise the extent to which these haircut methodologies are procyclical. Standard setters (e.g. Basel Committee on Banking Supervision (BCBS)) should review existing regulatory requirements for the calculation of collateral haircuts in line with this recommendation by the end of 2015.**

3 Numerical floors on haircuts

The FSB members agreed to introduce a framework of numerical haircut floors for non-centrally cleared securities financing transactions in which financing against collateral other than government securities[15] is provided to non-banks. Through the introduction of numerical haircut floors on such transactions, the FSB aims to limit the possible build-up of leverage outside the banking system and reduce the procyclicality of that leverage. The numerical haircut floors should thus function as a backstop in a benign market environment.

The numerical haircut floors are not intended to dictate market haircuts, and market participants should conduct their own assessment as to the appropriate level of haircuts to apply in individual circumstances, considering all relevant risk factors. Market participants are encouraged to determine their own, more granular risk-based haircut schedules, in accordance with the methodology standards as set out above, and to set higher haircuts than any regulatory numerical haircut floors where prudent. The FSB will monitor whether the numerical haircut floors are having the desired effect in terms of limiting the build-up of leverage and reducing procyclicality without becoming the de facto market standards or creating unintended consequences.

In developing the framework, the FSB considered the consultation responses to the August 2013 consultative proposals, as well as the results of a calibration exercise, undertaken as a two-stage QIS. The first stage of the QIS (QIS1) was conducted in April - June 2013, to develop and calibrate the consultative haircut proposals published in August 2013 based on detailed historical data on haircut levels in 2006, 2008 and 2012, categorised by type of collateral and counterparty, from a group of large banks and broker-dealers (17 firms in 12 FSB member jurisdictions).[16] Subsequently, the second stage of the QIS (QIS2) was conducted in November 2013 - January 2014 to assess the scope and quantitative impact of the consultative proposals on a wider set of market participants (34 banks and broker-dealers, 5 agent lenders and 15 non-banks from 13 FSB member jurisdictions, representing in aggregate total assets of $35 trillion and total combined repo and reverse repo books of $9.8 trillion). Annex 2 summarises the results of QIS2. In addition, the FSB has considered existing market and central bank haircuts, as well as historical price volatility of different asset classes (which is summarised in Annex 3).

3.1 Scope of application

The framework of numerical haircut floors applies to *non-centrally-cleared securities financing transactions in which financing against collateral other than government securities[17] is provided to non-banks*. Securities financing received by banks and broker-dealers subject to adequate capital and liquidity regulation on a consolidated basis[18] is excluded from the scope of application of the numerical haircut floors because applying numerical haircut floors to those transactions may duplicate existing regulations. Non-centrally cleared securities financing transactions performed in any operation with central banks are also outside the scope of application.

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15 See footnote 11.

16 For the summary of QIS1 results, see Annex 2 of the August 2013 Report.

17 See footnote 11.

18 See footnote 13.

Transactions backed by government securities are excluded from the framework because price movements in these securities generally tend not to be procyclical, although price movements in government securities may become procyclical if credit and liquidity risks on those securities become significant.[19] Also, haircuts on these transactions have been comparatively stable over time at zero or low levels (based on the results of the QIS1 calibration exercise), and thus imposing non-zero numerical haircut floors on these transactions would be binding on a large share of transactions.

3.2 Levels for numerical haircut floors

The numerical haircut floors (Table 1) have been calibrated at levels above those proposed in the August 2013 consultative document, taking into account the results of the two-stage QIS, data on the historical price volatility of in-scope assets, as well as existing market and central bank haircuts (see Annex 3). Furthermore, an additional maturity bucket for debt securities with a residual maturity of more than ten years has been introduced. The haircut floors are intended to serve as "backstops" and limit the build-up of excessive leverage while maintaining incentives for market participants to conduct their own analysis of the appropriate level of haircuts, following the standards set out above.

Table 1: Numerical haircut floors for securities-against-cash transactions[20]

Residual maturity of collateral	Haircut level	
	Corporate and other issuers	Securitised products
≤ 1 year debt securities, and Floating Rate Notes (FRNs)	0.5%	1%
> 1 year, ≤ 5 years debt securities	1.5%	4%
> 5 years, ≤ 10 years debt securities	3%	6%
> 10 years debt securities	4%	7%
Main index equities	6%	
Other assets within the scope of the framework	10%	

In developing the numerical haircut floors, the FSB discussed the relative merits of setting a single numerical floor for haircuts as well as a more granular approach. Balancing simplicity

[19] Changes in bond prices can be decomposed into movements in risk-free rates and in credit and liquidity spreads.

[20] Where shares in mutual funds are used as collateral to securities financing transactions, they should be treated as "other assets".

with the need to avoid creating incentives to increase the use of risky or illiquid collateral, the FSB agreed that the numerical haircut floors should be risk-based, but not too granular, and that ideally they should not be based on credit ratings determined by credit rating agencies, in order to avoid mechanistic reliance on external ratings. Basing numerical haircut floors on a variant of the Basel III standard supervisory haircuts for securities financing transactions[21] has the important benefit of consistency with capital rules and with the standardised schedules adopted by the BCBS-IOSCO (International Organization of Securities Commissions) margin requirements for non-centrally cleared derivatives.[22]

The numerical haircut floors are intended to apply both where haircuts are applied at the transaction level and where margin is applied at the portfolio level. In the case of portfolio margining, the margin applied should therefore be no lower than the weighted-average of the haircut floors that would be applied individually to the financing positions in the portfolio that are within the scope of this framework. Based on discussions with market participants and the proposed level for calibration of numerical haircut floors, the FSB believes that the consequent effective floors on portfolio margin would not be unduly restrictive, even for borrowers running diversified, market-neutral portfolios.

A further possibility is that raising the numerical haircut floors above the levels set out in Table 1 could in the future be used as a macro-prudential tool by relevant national/regional authorities. Further work would be required to refine how countercyclical changes in minimum haircuts could be implemented as a macro-prudential tool (such as the conditions/triggers for considering such changes, and the magnitude of the changes).

3.3 Cash-collateralised securities lending

The framework of numerical haircut floors is intended to apply to transactions where the primary motive is to provide financing, rather than to borrow or lend specific securities.

Therefore, cash-collateralised securities lending transactions are exempted from the framework of numerical haircut floors where:

- securities are lent at long maturities and the lender of securities reinvests or employs the cash at the same or shorter maturity, therefore not giving rise to material maturity or liquidity mismatch.
- securities are lent at call or at short maturities, giving rise to liquidity risk, only if the lender of the securities reinvests the cash collateral into a reinvestment fund or account subject to regulations or regulatory guidance meeting the minimum standards for reinvestment of cash collateral by securities lenders set out in Section 3.1 of the August 2013 Report. For this purpose, counterparties may rely on representations by securities lenders that their reinvestment of cash collateral meets the minimum standards.

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21 The BCBS is currently reviewing the standardised supervisory haircuts for securities financing transactions under its Basel III framework. The BCBS plans to reflect the regulatory framework on haircuts set out in this document (including the numerical haircut floors) when revising its supervisory haircuts.

22 http://www.bis.org/publ/bcbs261.pdf

This approach: (a) recognises the key principle that haircut floors should only apply to securities financing transactions; (b) allows regulatory and supervisory authorities to enforce this principle in a relatively objective manner, without having to make subjective intent determinations; and (c) limits opportunities for regulatory arbitrage that could otherwise exist.

"Special repos (or specials)"[23] on collateral other than government securities are not exempted from the scope of numerical haircut floors. Although special repos are also used for borrowing and lending specific securities, the cash borrower typically uses the cash for financing purposes. Furthermore, haircuts on special repos (if any), unlike cash collateralised securities lending, are typically paid by the cash borrower and thus the transactions are economically similar in this respect to securities borrowing that may be captured by numerical haircut floors.

3.4 "Collateral upgrade" transactions

"Collateral upgrade" transactions can be defined as borrowing securities in Table 1 against other securities in Table 1 that attract higher haircuts as collateral. Such transactions, if left out of the scope of application of the numerical haircuts framework, could potentially be used to circumvent numerical haircut floors regulation. This could be achieved by structuring a financing repo as a combination of a "collateral upgrade" transaction and a repo of the lower-haircut securities against cash. For example, main index equities could be swapped for under-one-year corporate debt securities that could then be repo-ed with a lower numerical haircut floor. In order to prevent such circumvention, numerical haircut floors would also need to apply to "collateral upgrade" transactions. These floors would be equal to the difference between the floors that would be applied to repos of the collateral types on the two legs of the transaction done separately.[24] For example, the haircut floor on the collateral swap transaction described in the above example would be 5.5%, i.e. the floor for main index equities (6%) less the floor for under-one-year corporate debt securities (0.5%). This extension of the framework adds an element of complexity but is necessary to reduce the risk of regulatory arbitrage.

Similar to the exemptions for cash collateralised securities lending (as explained in Section 3.3), securities lenders could be exempted from the numerical haircut floors on "collateral upgrade" transactions – or securities borrowing/lending transactions against the pledging of other securities as collateral, rather than cash – if they are unable to re-use, or provide representations that they do not and will not reuse, the securities received as collateral against the securities lent.

3.5 Implementation approaches

The framework of numerical haircut floors could be implemented through the following three approaches:

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23 Special repos are repos that are conducted to finance assets that are in high market demand.

24 For the purpose of calculating haircut floors for collateral swaps involving government securities, market participants should assume the floor for government securities to be 0%.

(i) *Entity-based regulation*: Under this approach, numerical haircut floors would be implemented through regulations targeted at each type of entity that engage in securities financing transactions. As a result of such regulatory actions, banks and other entities that engage in securities financing transactions could either be required to comply with numerical haircut floors or could be given strong incentives to do so. As an example of an incentive to comply with the numerical floors, the Basel regulatory capital framework (i.e. Basel III framework) could be modified so that bank capital requirements are set significantly higher for transactions that do not comply with the numerical haircut floors.

(ii) *Product-based regulation (market regulation)*: Numerical haircut floors would be implemented through product-based regulation or market regulation targeted at the activity of providing securities financing to non-banks against collateral other than government securities. Under such an approach, providers of securities financing would typically be required to conduct transactions above the numerical haircut floor or collect minimum margin amounts that are consistent with the numerical haircut floors.

(iii) *Hybrid approach*: Numerical haircut floors would be implemented through a combination of the above, for example, regulatory incentives to encourage banks in bank-to-non-bank transactions to comply with the numerical haircut floors and regulatory requirements for non-bank lenders in non-bank-to-non-bank transactions to comply with the numerical haircut floors.

For bank-to-non-bank transactions, the FSB recommends that the BCBS incorporates the numerical haircut floors into the capital requirements for securities financing transactions within the Basel III framework by the end of 2015. The BCBS should set significantly higher capital requirements for transactions with haircuts below the numerical haircut floors, with the goal of creating incentives for banks to set their collateral haircuts higher than the floors rather than to hold more capital. Box 1 sets out possible approaches that the BCBS may consider in revising the Basel III framework.

Following the BCBS's incorporation of the numerical haircut floors into the Basel III framework, authorities should choose to implement numerical haircut floors for bank-to-non-bank transactions either by implementing the relevant changes in the Basel III framework or by requiring banks in bank-to-non-bank transactions to conduct transactions above the numerical haircut floor or collect minimum excess margin amounts consistent with the numerical haircut floors. Such a requirement could be directed solely at banks (i.e. entity-based regulation) or could be encompassed within a requirement that applies on a market-wide basis (i.e. product-based or market regulation). For broker-dealers, authorities may also choose to implement the numerical haircut floors through capital requirements or through minimum margin requirements.

For non-bank-to-non-bank transactions, the FSB believes the value of outstanding transactions to be small. However, that could change in the future as market practices and activities evolve. To ensure shadow banking activities are fully covered, to reduce the risk of regulatory arbitrage, and to maintain a level playing field, the FSB believes it is essential to expand the scope of application of the numerical haircut floors to include non-bank-to-non-bank transactions and is issuing a consultative proposal on its application to non-bank-to-non-bank transactions, as set out in Annex 4. Based on the consultation responses, the FSB will complete its work on the application of numerical haircut floors to non-bank-to-non-bank transactions by the second quarter of 2015. In deciding the appropriate approach for applying the numerical haircut floors to non-bank-to-non-bank transactions, the FSB thinks it is important for authorities to ensure no overlap exist for the regulation of an entity type if different approaches are adopted in the jurisdiction.

Recommendation 13: For non-centrally cleared securities financing transactions in which banks and broker-dealers provide financing to non-banks against collateral other than government securities (i.e. bank-to-non-bank transactions), the Basel Committee on Banking Supervision (BCBS) should review its capital treatment of securities financing transactions and incorporate the framework of numerical haircut floors into the Basel regulatory capital framework (i.e. Basel III framework) by the end of 2015.

Recommendation 14: Following the BCBS's incorporation of the framework of numerical haircuts floors into the Basel III framework, authorities should then implement the framework by the end of 2017. That may be either through the Basel III framework or by requiring banks in bank-to-non-bank transactions to conduct transactions above the numerical haircut floor or collect minimum excess margin amounts consistent with the numerical haircut floors. Such a requirement could be directed solely at banks and broker-dealers (i.e. entity-based regulation) or could be encompassed within a requirement that applies on a market-wide basis (i.e. market regulation). To the extent that the market regulation also captures non-bank-to-non-bank transactions, this would be subject to the consultation on the application of numerical haircut floors to non-centrally cleared securities financing transactions between non-banks as set out in Annex 4 of this document.

Recommendation 15: Taking into account the findings of the consultation in Annex 4 of this document, authorities should also introduce the framework of numerical floors for haircuts applicable to non-bank-to-non-bank transactions by the end of 2017.

3.6 Monitoring process

Since the numerical haircut floors will be implemented through different regulatory approaches across jurisdictions, the FSB highlights the potential for market participants to seek to avoid the numerical haircut floors by booking transactions in different jurisdictions. It is therefore highly desirable that the framework is implemented globally in ways that achieve consistent outcomes and that it is regularly monitored to ensure consistency in implementation.

The FSB, in coordination with the relevant international standard setting bodies, will thus establish a monitoring framework that involves relevant authorities and captures the trends and risks in securities financing transactions. Such monitoring results may be included in the FSB annual global shadow banking monitoring exercise[25] and may leverage on the FSB

[25] For example, please see http://www.financialstabilityboard.org/publications/r_121118c.pdf.

initiative on global securities financing data collection and aggregation.[26] Also, such monitoring should be able to identify potential conflicts and inconsistencies between approaches with respect to cross-border application of numerical haircut floors ensuring close cooperation among the relevant authorities. Based on the monitoring results, the FSB could in the future consider reviewing, for example, the counterparty and collateral scope as well as the level of numerical haircut floors. The FSB work on developing standards and processes for global securities financing data collection and aggregation based on Recommendations 2 and 3 of the August 2013 Report will also put the authorities in a better position to monitor whether these steps remain sufficient to address potential risks to financial stability arising from securities financing transactions.

Derivatives (e.g. total return swaps) can be used to achieve similar economic objectives as repo and securities lending transactions (and possibly vice-versa). The FSB will thus also coordinate closely with the BCBS-IOSCO monitoring group on margin requirements for non-centrally cleared derivatives so as to minimise incentives to arbitrage any differences between the two regimes. The FSB will set out the details of this monitoring process by the second quarter of 2015.

Recommendation 16: The FSB, in coordination with the relevant international standard setting bodies, will monitor the implementation of the framework of numerical haircut floors and will consider reviewing the framework including its scope and levels as necessary.

[26] The proposed standards and processes for global securities financing data collection and aggregation will be developed by November 2014 and will be issued for public consultation.

Box: Possible application of the framework of numerical haircut floors to bank-to-non-bank transactions

This box sets out possible approaches for how numerical haircut floors might be implemented through modifications of the current Basel regulatory capital requirements for non-centrally cleared securities financing transactions in which banks provide financing to non-bank entities (i.e. bank-to-non-bank transactions). There are several potential outcomes for banks conducting core transactions with haircuts below the numerical floors. They could:

(i) switch to unsecured lending;

(ii) keep the current haircut level and hold more regulatory capital;

(iii) raise the haircut level to avoid the capital charge; or

(iv) not conduct the transaction at all.[27]

The policy aim is to determine a set of rules such that there are strong economic incentives for the third outcome to be achieved. Although a detailed analysis of behavioural responses is beyond the scope of this Box, preliminary calculations under certain assumptions show that banks will tend to prefer raising haircuts if the capital cost for not doing so is sufficiently large.

Current treatment in Basel II.5[28]

For collateralized transactions, the Basel Standardised Approach (RSA) calculates the exposure amount after deducting the value of the collateral posted (subject to standardised haircuts) according to this formula:

$$E^* = E \times (1 + He) - AC \times (1 - Hc - Hfx),$$

where:

E^* = the exposure value after risk mitigation;

E = current value of the exposure;

He = haircut appropriate to the exposure;[29]

AC = value of adjusted collateral (see text below);

Hc = haircut appropriate to the collateral;

Hfx = haircut appropriate for currency mismatch between the collateral and exposure.

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27 Banks could also enter into a total return swap with the non-bank. This case is not presented in this box.

28 This treatment is under the "comprehensive approach" in the Basel III framework. There is also a "simple approach" (paragraph 129 of the Basel III framework). Under the simple approach, the risk-weights of the collateral instrument collateralising or partially collateralising the exposure is substituted for the risk-weights of the counterparty. Further assessment of conditions under which a bank applies one approach or the other may be needed.

29 The haircut on the exposure would be zero in the case of transactions to finance entities other than financial intermediaries against non-sovereign collateral because the exposure will always be in the form of cash.

Then, the minimum capital requirement (Kmin) is given by:

$$\text{Kmin} = 0.08 \times \text{RW} \times \text{E}^*.$$

Optional treatments to induce use of haircut floors

Option 1: This proposal treats in-scope securities financing transactions conducted with haircuts below the numerical haircut floors as unsecured (the gross amount) for capital purposes. The adjusted value of collateral (AC) would then be calculated as AC = 0.

Option 2: The capital cost (compared to option 1) for not complying with the haircut floors can be reduced in order to maintain incentives for banks to lend on a secured basis. One way to accomplish this is by reducing the value of collateral in proportion to the difference between the haircut floor and the haircut applied by the banks. The adjusted value of collateral (AC) would then be calculated as:

$$\text{AC} = \text{C} \times [\ 1 - \theta \times (\text{Hf} - \text{H})\ ]$$

where:

C = current value of the collateral received;

Hf = haircut floor;

H = effective haircut applied to the transaction;

θ = a parameter that can be adjusted to make the penalty harsher.

The intention is to deduct from the collateral value only the fraction of collateral that is missing relative to the numerical haircut floor before calculating the exposure value after risk mitigation (E*) based on the above RSA formula.

Example of how options 1 and 2 would compare with the current Basel treatment

Consider the following numerical example where it is assumed the collateral is in the form of non-main index equities.

Exposure (E): 100

Collateral value (C): 100

Haircut applied (H): 0%

Haircut floor (Hf): 7.5%

$\text{AC} = 100 \times [1 - \max(0, 0.075)] = 92.5$

RW = 50%.

Hc = 25%

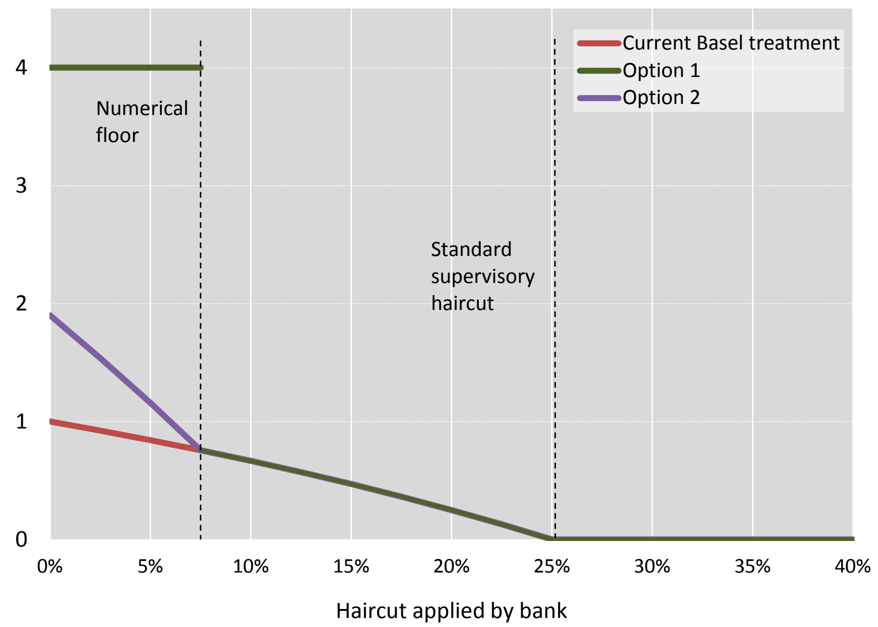
θ=4

For simplicity, He = Hfx = 0%

	Capital requirement
Current treatment	E* = 100 – 100 × (1 – 25%) = **25** Kmin = 0.08 × RW × E* = 0.08 × 0.5 × 25 = **1**
Option 1	E* = 100 – 0 × (1 – 25%) = **100** Kmin = 0.08 × RW × E* = 0.08 × 0.5 × 100 = **4**
Option 2	E* = 100 – 70 × (1 – 25%) = 47.5 Kmin = 0.08 × RW × E* = 0.08 × 0.5 × 47.5 = **1.9**

Alternatively, the figure below shows the bank's capital requirement for a given illustrative transaction as a function of the haircut applied by the bank, H>0 (assuming that the non-bank pledges additional collateral to obtain the required funding: C = E / (1-H)).

Capital requirements under different regulatory treatments



It is clear that treatment 1 (green line) would be substantially the most punitive, whereas under treatment 2 (purple line), depending on the parameter θ, capital requirements are in between the current Basel treatment (red line) and treatment 1. Note that under treatments 1 and 2, the regulatory capital requirements converge to the current Basel treatment as the haircut applied by the bank converges to the numerical haircut floor (assumed to be 7.5% in the figure), and then to zero as the haircut applied converges to the standard supervisory haircut.

Annex 1: Implementation dates for the policy recommendations for shadow banking risks in securities lending and repos[30]

Recommendation 1: Authorities should collect more granular data on securities lending and repo exposures amongst large international financial institutions with high urgency. Such efforts should to the maximum possible extent leverage existing international initiatives such as the FSB Data Gaps Initiative, taking into account the enhancements suggested in this document.

Implementation date: Ongoing

Recommendation 2: Trade-level (flow) data and regular snapshots of outstanding balances (position/stock data) for repo markets should be collected. Regular snapshots of outstanding balances should also be collected for securities lending markets and further work should be carried out on the practicality and meaningfulness of collecting trade-level data. Such data should be collected frequently and with a high level of granularity, and should also capitalise on opportunities to leverage existing data collection infrastructure that resides in clearing agents, central securities depositories (CSDs) and/or central counterparties (CCPs). National/regional authorities should decide the most appropriate way to collect such data, depending on their market structure, and building on existing data collection processes and market infrastructure where appropriate. Trade repositories are likely to be an effective way to collect comprehensive repo and securities lending market data. Regulatory reporting may also be a viable alternative approach.

Recommendation 3: The total national/regional data for both repos and securities lending on a monthly basis should be aggregated by the FSB which will provide global trends of securities financing markets (e.g. market size, collateral composition, haircuts, tenors). The FSB should set standards and processes for data collection and aggregation at the global level to ensure consistent data collection by national/regional authorities and to minimise double-counting at the global level.

Implementation date: Ongoing (proposed standards and processes to be published for public consultation before the Brisbane Summit in November 2014)

Recommendation 4: The Enhanced Disclosure Task Force (EDTF) should work to improve public disclosure for financial institutions' securities lending, repo and wider collateral management activities, taking into consideration the items noted above.

Implementation date: EDTF to consider by January 2015 and implementation by firms thereafter.

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[30] Recommendations 1-11 have already been finalised and published in the August 2013 Report (http://www.financialstabilityboard.org/publications/r_130829b.pdf). Recommendations 12-16 are those finalised in this document.

Recommendation 5: Authorities should review reporting requirements for fund managers to end-investors against the FSB's proposal, and consider whether any gaps need to be addressed.

Implementation date: January 2017

Recommendation 6: Regulatory authorities for non-bank entities that engage in securities lending (including securities lenders and their agents) should implement regulatory regimes meeting the minimum standards for cash collateral reinvestment in their jurisdictions to limit liquidity risks arising from such activities.

Implementation date: January 2017

Recommendation 7: Authorities should ensure that regulations governing re-hypothecation of client assets address the following principles:

- Financial intermediaries should provide sufficient disclosure to clients in relation to re-hypothecation of assets so that clients can understand their exposures in the event of a failure of the intermediary;
- In jurisdictions where client assets may be re-hypothecated for the purpose of financing client long positions and covering short positions, they should not be re-hypothecated for the purpose of financing the own-account activities of the intermediary; and
- Only entities subject to adequate regulation of liquidity risk should be allowed to engage in the re-hypothecation of client assets.

Implementation date: January 2017

Recommendation 8: An appropriate expert group on client asset protection should examine possible harmonisation of client asset rules with respect to re-hypothecation, taking account of the systemic risk implications of the legal, operational, and economic character of re-hypothecation.

Implementation date: Ongoing (the expert group has been established in August 2014)

Recommendation 9: Authorities should adopt minimum regulatory standards for collateral valuation and management for all securities lending and repo market participants.

Implementation date: January 2017

Recommendation 10: Authorities should evaluate, with a view to mitigating systemic risks, the costs and benefits of proposals to introduce CCPs in their inter-dealer repo markets where CCPs do not exist. Where CCPs exist, authorities should consider the pros and cons of broadening participation, in particular of important funding providers in the repo market.

Implementation date: January 2016

Recommendation 11: Changes to bankruptcy law treatment and development of Repo Resolution Authorities (RRAs) may be viable theoretical options but should not be prioritised for further work at this stage due to significant difficulties in implementation.

Implementation date: Not applicable

Recommendation 12: Regulatory authorities should set qualitative standards for the methodologies that firms use to calculate collateral margins/haircuts, whether on an individual transaction or portfolio basis, and should review those standards against the guidance set out above by the end of 2017. In particular, regulatory authorities should seek to minimise the extent to which these haircut methodologies are procyclical. Standard setters (e.g. Basel Committee on Banking Supervision (BCBS)) should review existing regulatory requirements for the calculation of collateral haircuts in line with this recommendation by the end of 2015.

Implementation dates: End of 2017 (for the relevant regulatory authorities) and end of 2015 (for the relevant standard setters including the BCBS)

Recommendation 13: For non-centrally cleared securities financing transactions in which banks and broker-dealers provide financing to non-banks against collateral other than government securities (i.e. bank-to-non-bank transactions), the Basel Committee on Banking Supervision (BCBS) should review its capital treatment of securities financing transactions and incorporate the framework of numerical haircut floors into the Basel regulatory capital framework (i.e. Basel III framework) by the end of 2015.

Implementation date: End of 2015

Recommendation 14: Following the BCBS's incorporation of the framework of numerical haircuts floors into the Basel III framework, authorities should then implement the framework of numerical haircut floors by the end of 2017. That may be either through the Basel III framework or by requiring banks in bank-to-non-bank transactions to conduct transactions above the numerical haircut floor or collect minimum excess margin amounts consistent with the numerical haircut floors. Such a requirement could be directed solely at banks and broker-dealers (i.e. entity-based regulation) or could be encompassed within a requirement that applies on a market-wide basis (i.e. market regulation). To the extent that the market regulation also captures non-bank-to-non-bank transactions, this would be subject to the consultation on the application of numerical haircut floors to non-centrally cleared securities financing transactions between non-banks as set out in Annex 4 of this document.

Implementation date: End of 2017

Recommendation 15: Taking into account the findings of consultation in Annex 4 of this document, authorities should also introduce the framework of numerical floors for haircuts applicable to non-bank-to-non-bank transactions by the end of 2017.

Implementation date: End of 2017

Recommendation 16: The FSB, in coordination with the relevant international standard setting bodies, will monitor the implementation of the framework of numerical haircut floors and will consider reviewing the framework including its scope and levels as necessary.

Implementation date: End of 2017 onwards

Annex 2: Summary of QIS2 results

The FSB launched in April 2013 a two-stage quantitative impact study (QIS) to assess the potential impact and unintended consequences associated with its recommendations on minimum haircut methodology standards and numerical haircut floors. The first stage of this QIS (QIS1) took place in April - June 2013, and consisted of collecting detailed historical haircut data from a small pool of large financial intermediaries globally (17 firms from 12 jurisdictions) so as to calibrate the proposed minimum haircut recommendations.[31] The FSB subsequently conducted the second stage of the QIS (QIS2) in November 2013 - January 2014 to assess the scope and quantitative impact of the consultative proposals, as set out in Annex 2 of the August 2013 Report, on a wider set of market participants including non-banks, which participated on a voluntary basis (54 firms[32] from 13 jurisdictions[33]).

The main results of QIS2 included the following:

- **Overall, the sample of banks and broker-dealers was large and representative of the global marketplace**, with a total of USD 3.9 trillion in outstanding reverse repos as at end-June 2013. **However, the sample of non-banks, which included 15 entities with a total outstanding amount of repos of USD 220 billion, was deemed to be too small to draw firm conclusions for non-bank-to-non-bank transactions**. (Table A2-1)
- **Transactions within the scope of the numerical haircut floors framework proposed in the August 2013 Report** (i.e. transactions where banks provide financing to non-bank entities against collateral other than government securities) **represented 27% of all non-centrally cleared securities financing transactions reported by banks and broker-dealers**. This is considerably higher than the share of those transactions reported in QIS1 (9%), mainly because margin lending was included in QIS2. (Exhibit A2-1)
- **The majority of in-scope transactions were backed by main index equities (close to 60%) and were conducted by banks and broker-dealers with hedge funds (around 75%)**. (Exhibit A2-2)
- **Zero haircuts were more common on securities financing transactions backed by government collateral and with bank/broker-dealer counterparties**, but a material portion of transactions with non-bank entities against corporate debt collateral were also conducted with zero haircuts. (Exhibit A2-3)
- **The impact of the proposed haircut floors was generally small.** Firms were given two sets of haircut floors to assess the impact on the value of collateral required: the haircut floors proposed in the August 2013 Report and an alternative and higher set of

[31] See Annex 3 of the August 2013 Report for the summary of QIS1 results.

[32] Including 34 banks and broker-dealers, 5 agent lenders and 15 non-banks (e.g. insurance companies, hedge funds).

[33] They are Australia, Brazil, Canada, France, Germany, Italy, Japan, Netherlands, Spain, South Africa, Switzerland, UK and US.

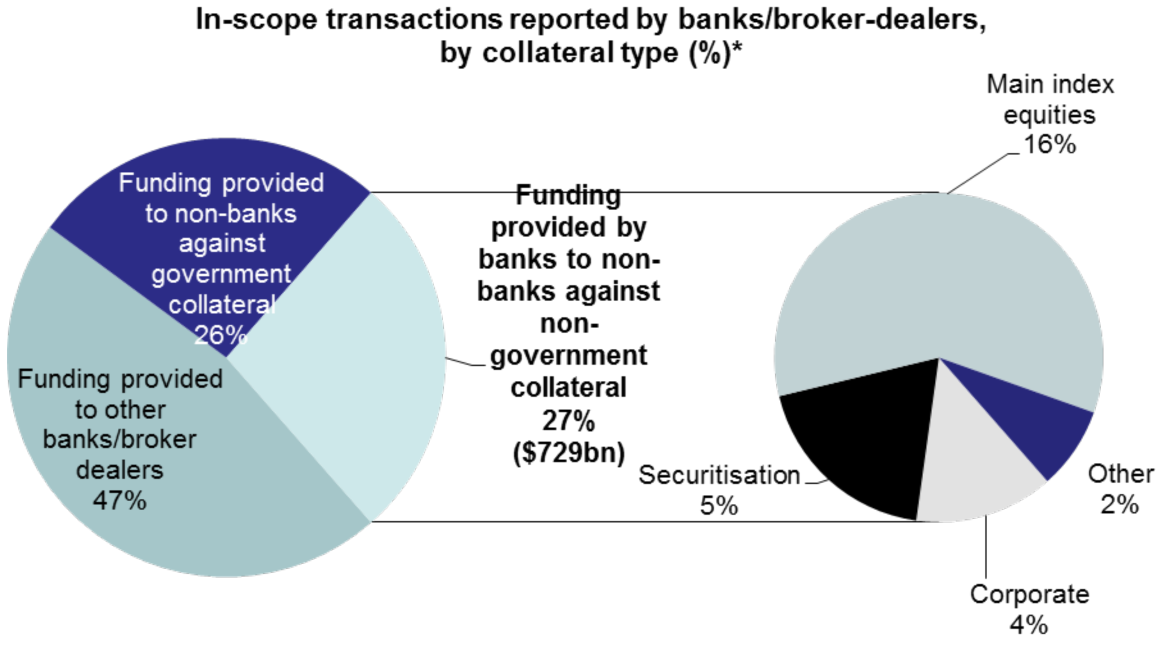
haircut floors. The impact is generally small in both cases but differs across jurisdictions and market segments. (Exhibit A2-4)

- **Qualitatively, most firms also expected only a minimal impact of the proposed haircut floors on market volume,** but some firms expressed concerns about market haircuts converging to the numerical haircut floors and about the potential for an increase in the transaction volume between non-bank entities.

Table A2-1

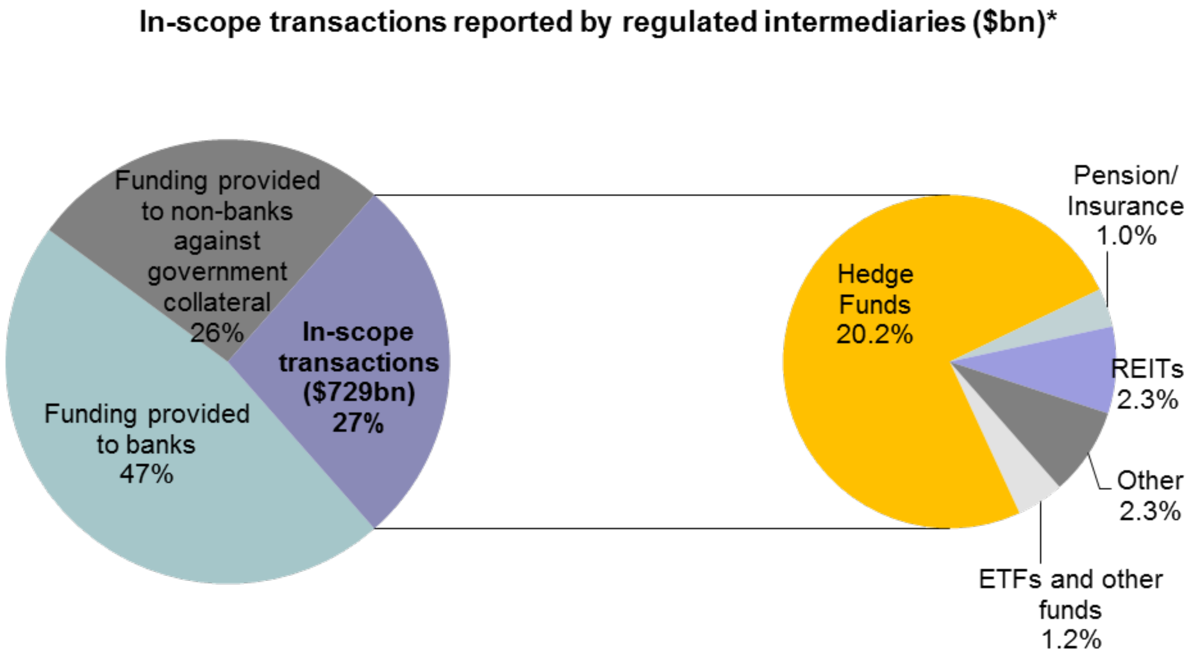
(USD bn)	Banks and broker-dealers	Non-banks	Agent lenders	
No. of respondents	34	15	No. of respondents	5
Total assets	33,239	2,397	Total size sec-lending	3,628
Reverse repos	**3,928**	230	*of which % on loan*	455
centrally-cleared (%)	32	23	Total cash collateral	300
tri-party (%)	5	5	*% reinvested in compliance with min. stds.*	99
Repos	**5,446**	220	*% used for CCP margin*	0
centrally-cleared (%)	26	44		
tri-party (%)	41	0		
Securities lending	856	55		
Securities borrowing	1,285	33		
Margin lending	491	0.1		
Total unencumbered assets	4,026	622		
of which collateral received (%)	37	5		

Exhibit A2-1



*: "Banks" include broker-dealers. Centrally-cleared transactions and transactions with governments, government agencies and central banks are excluded.

Exhibit A2-2



*: "Banks" include broker-dealers. Centrally-cleared transactions and transactions with governments, government agencies and central banks are excluded.

Exhibit A2-3

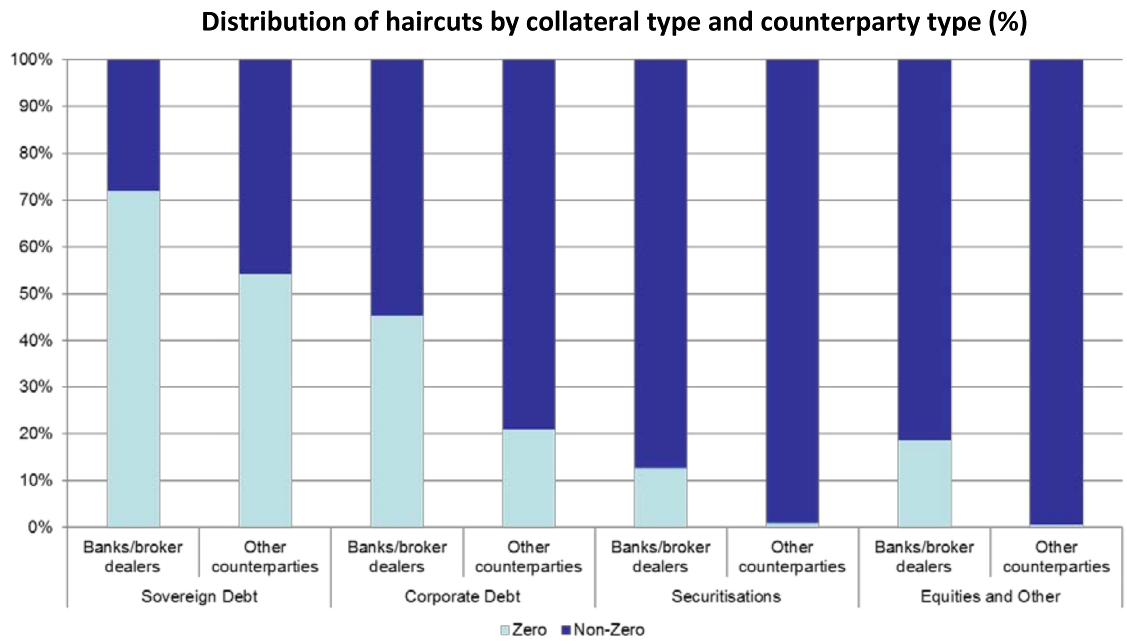
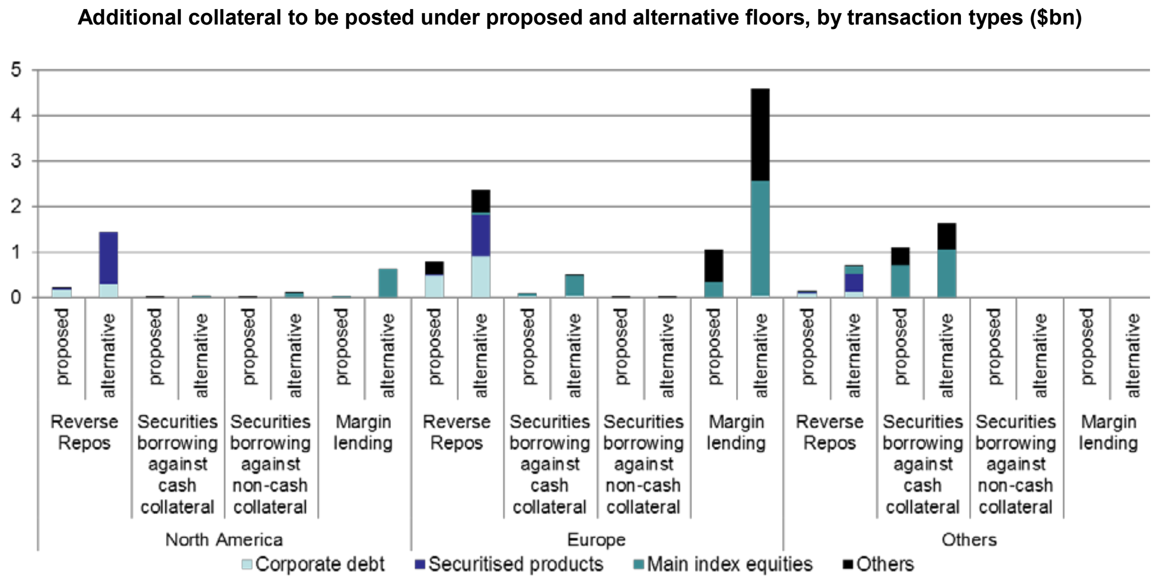


Exhibit A2-4



Annex 3: Estimation of haircuts based on historical data

The FSB conducted a study on the estimation of haircuts based on historical price data, in order to inform the calibration of the numerical haircut floors. For a given security-type, the haircut is estimated to be the 99th percentile expected loss within a holding period of 10 days, based on historical data on daily returns. A 99% confidence interval and a holding period of 10 days were chosen to be consistent with the Basel regulatory capital requirements (Basel III framework).[34] In addition, in order to ensure that the crisis period is included in the analysis, the historical look-back period used was either five years or the period since end-June 2008, whichever was greater.

Market indices were used to estimate the haircuts on corporate bonds, securitised products and equities, split by residual maturity where applicable. For example, the haircut for corporate bonds with a residual maturity between 5 and 10 years (5-10Y) is the weighted-average of haircuts estimated based on the Merrill Lynch 5-10Y Corporate Bond Index for USD, EUR, GBP and JPY. For main index equities, the weighted-average of haircuts estimated based on FTSE 100, Stoxx Europe 50, S&P 500 and Nikkei 225 indices was used. For other equities, the weighted-average of haircuts estimated based on FTSE SmallCap, FTSE Europe SmallCap, S&P 600 SmallCap and TSE Mothers was used. Corporate bonds and securitised products with a residual maturity less than one year, as well as high-yield corporate bonds, were excluded from the empirical analysis due to data limitations.

Note that the methodology employed could potentially underestimate haircuts because (i) market indices could be less volatile than individual securities due to portfolio diversification benefits, and (ii) due to data availability the bond indices used only included investment grade bonds.

The main results of the study were the following:

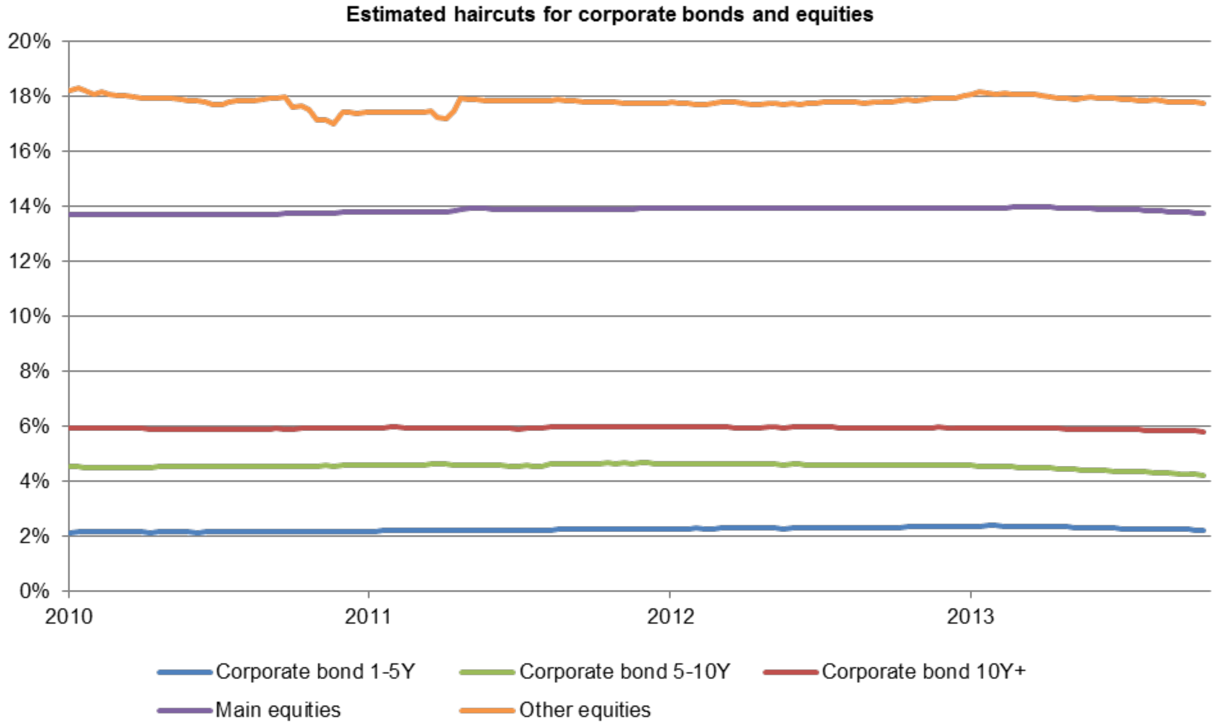
- **For corporate bonds, the estimated haircuts were above the relevant numerical haircut floors** (estimated haircuts were 2.2% for the 1 to 5 year maturity bucket, 4.5% for the 5 to 10 year maturity bucket and 5.9% for over 10 years). (Exhibit A3-1)
- **For equities, the estimated haircuts were significantly above the relevant numerical haircut floors** (the estimated haircuts were 13.8% for main index equities and 17.5% for other equities). (Exhibit A3-1)
- **For securitised products, the estimated haircuts were significantly above the relevant numerical haircut floors** (Table A3-1) except for AAA-rated securitised products with a residual maturity between 1 and 5 years and commercial mortgage-backed securities (CMBS)[35] with a residual maturity over 10 years.

[34] The Basel III framework requires a 10 business day holding period for standard supervisory haircuts (paragraph 151) and a 99th confidence interval for own-estimate haircuts (paragraph 156).

[35] Due to the limited number of observation for CMBS with 10Y+ residual maturity, the results may be underestimated.

The Basel III assumptions for the estimation of haircuts used in the above calibration are for "prudent" haircut practices whereas the numerical haircut floors are intended to be set at 'backstop' levels. Thus, they were used to provide upper limits to the numerical haircut floor calibration.

Exhibit A3-1



Source: Merrill Lynch indices and major equity indices

Table A3-1

Estimated haircuts for securitised products

	Rating	1-5Y Residual maturity	5-10Y Residual maturity	10Y+ Residual maturity
ABS	IG	9	14	14
	AAA	4	10	10
	AA; BBB	14	22	56
CMBS	IG	10	13	5
	AAA	5	11	5
	AA; BBB	14	13	5
PL CMO	IG	11	12	15
	AAA	10	11	15
	AA; BBB	16	15	16
All Structured	IG	10	13	14
	AAA	7	11	12
	AA;BBB	15	15	19

Source: Merrill Lynch indices and FRBNY

Annex 4: Proposed application of numerical haircut floors to non-bank-to-non-bank transactions (for public consultation)

This section sets out proposed approaches for applying the framework of numerical haircut floors (as set out in Section 3 of this document) to non-bank-to-non-bank transactions backed by collateral other than government securities. The FSB welcomes comments on the proposal. Comments and responses to questions should be submitted by ***15 December 2014*** *by email to fsb@bis.org or by post (Secretariat of the Financial Stability Board, c/o Bank for International Settlements, CH-4002, Basel, Switzerland). All comments will be published on the FSB website unless a commenter specifically requests confidential treatment. The FSB also welcomes any evidence supportive of comments or responses to questions, including studies or other documentation as necessary. Based on the comments received, the FSB will complete its work on applying the numerical haircut floors to non-bank-to-non-bank transactions by the second quarter of 2015.*

1. Objective

To limit the build-up of excessive leverage outside the banking system, to help reduce procyclicality from such leverage, and to guard against the risk of regulatory arbitrage, the FSB has decided to expand the scope of the framework of numerical haircut floors to non-centrally cleared securities financing transactions in which financing against collateral other than government securities is provided between entities other than banks and broker-dealers (i.e. non-bank-to-non-bank transactions). The FSB believes that expanding the applicability of the numerical haircut floors would help ensure that shadow banking activities are fully covered, reduce risk of regulatory arbitrage, and maintain a level-playing field between bank and non-bank lenders. Furthermore, it would avoid encouraging a shift of securities financing transactions to non-bank-to-non-bank transactions that is driven by a desire to circumvent regulatory requirements.

Please provide any qualitative/quantitative evidence supportive of your response, including studies or other documentation as necessary.

Q1. Do you agree that the application of the framework of numerical haircut floors as described in Section 3.3 to non-bank-to-non-bank transactions will help to reduce the risk of regulatory arbitrage and would maintain a level playing field?

Q2. In your view, how significant is the current level of non-bank-to-non-bank transactions? Do you expect that level to increase going forward and why? What types of non-bank entities are, or could be, involved in such transactions?

2. Proposed approaches

As set out in Section 3.5 of this document, there are three general approaches for applying the framework of numerical haircut floors to non-bank-to-non-bank transactions. They are: (i) entity-based regulation; (ii) product-based regulation (market regulation); and (iii) a hybrid approach.

Entity-based regulation applies to particular types of entities that engage in transactions subject to the numerical haircut floors. This approach would allow authorities to use existing regulatory arrangements for non-bank entity types, such as insurance companies, pension funds and collective investment schemes. For example, authorities could agree to modify existing national or international regulatory arrangements to implement the numerical haircut floors.

However, implementation of numerical haircut floors through entity-based regulation faces practical challenges. For example, it would, by definition, not capture transactions between non-bank entities that are not subject to some type of regulation. Even if regulated, it is unclear which types of non-bank entities would need to be subject to numerical haircut floors. Ease of implementation would vary by entity type and jurisdiction depending, for example, whether existing regulations cover securities financing activities. Finally, it may be challenging to ensure that entity-based regulation creates comparable incentives to comply with the numerical haircut floors across different types of entities.

Product-based or market regulation would provide the widest coverage of entities and ensures consistency of implementation within a given jurisdiction. In practice, depending on the jurisdiction, market regulation could be used to prohibit market participants from conducting in-scope transactions below the numerical haircut floors. Unregulated lenders that conduct in-scope transactions could be subject to registration and reporting requirements to allow authorities to monitor compliance. Depending on the market characteristics, authorities may consider introducing a materiality threshold of activity below which entities do not need to register.

As in the case of entity-based regulation, market regulation faces practical challenges. For example, although there are now international standards with respect to margin requirements for non-centrally-cleared derivatives,[36] there are no harmonised international standards specifically in relation to securities financing activities. The use of market regulation may also create incentives for market participants to restructure transactions in ways that circumvent the regulations in order to avoid numerical haircut floors, for example by entering into separate secured and unsecured loans or by booking transactions in other jurisdictions. Enforceability of regulation on unregulated entities may be a challenge even if these entities become subject to registration and reporting requirements.

Finally, a hybrid approach allows tailoring to existing regulatory settings and provides the most flexibility to authorities in implementing the numerical haircut floors in ways that are viewed as appropriate for their jurisdictions. For example, authorities may implement the numerical haircut floors by using existing entity-based regulation for transactions between bank-to-non-bank transactions, while using market regulation for other non-bank-to-non-bank transactions. However, a hybrid approach would be more complex and could lead to gaps or overlapping requirements.

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[36] http://www.bis.org/publ/bcbs261.pdf

Q3. Do the approaches set out above cover all potential approaches in applying numerical haircut floors to non-bank-to-non-bank transactions? Are there any other approaches? If so, please describe.

Q4. Please provide any comments you have on the strengths and weaknesses of the approaches set out above, as well as any other approaches you believe the FSB should consider. What issues do you see affecting the effective implementation of numerical haircut floors for non-bank-to-non-bank transactions?

Q5. What forms of avoidance of the numerical haircut floors are most likely be employed for non-bank-to-non-bank transactions? Which of the proposed implementation approaches is likely to be most effective in preventing such avoidance?

Q6. If different entity-type regulations are used, do you see the need to ensure comparative incentives across different entity types? If so, please describe any potential mechanisms that may help ensure comparative incentives across entity types?

Q7. If market regulation is used, should the FSB consider setting a materiality threshold of activity below which entities do not need to register? If so, what could be an appropriate level for such a threshold?

Q8. Do you see the need for a phase-in period in applying numerical haircut floors to non-bank-to-non-bank transactions, and if so how long should it be and why? Does the appropriate phase-in period vary depending on which approach is followed? Should it vary by jurisdiction based on the size and importance of the non-bank-to-non bank sector or should it be consistent across jurisdictions?