

Proposed regulatory framework for haircuts on securities financing transactions

**Instructions for the Quantitative Impact Study (QIS2) for
Regulated Financial Intermediaries (Banks and Broker-Dealers)**

5 November 2013

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1. Background

On 29 August, the FSB published the report *Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos* (hereafter August Report) that set out policy recommendations for addressing financial stability risks in relation to securities lending and repos.¹ It also included proposals on minimum standards for methodologies to calculate haircuts on non-centrally cleared securities financing transactions and a framework of numerical haircut floors that will apply to non-centrally cleared securities financing transactions in which entities not subject to regulation of capital and liquidity/maturity transformation receive financing from regulated financial intermediaries against collateral other than government securities. The FSB invited comments from the public on these proposals by 28 November. As part of the development of these proposals, the FSB had launched a two-stage quantitative impact assessment (QIS) in April 2013.

The first stage (QIS1) consisted of a data request to a group of 17 large financial intermediaries (banks and broker-dealers) from 12 jurisdictions on historical haircut distributions at three specific points in time (pre-crisis, post-crisis and current) in order to help calibrate detailed minimum haircut proposals. This first stage also included qualitative questions asking participating firms to provide a general description of the factors they take into account and the approach they follow when setting haircuts on securities financing transactions.

The second stage of this exercise (QIS2) is now being launched and comprises a more comprehensive quantitative assessment of the impact on a broader set of firms of the FSB's detailed haircuts proposals, both the proposed minimum standards for methodologies used by firms in calculating their own haircuts and the numerical haircut floors to be applied to certain securities financing transactions. The FSB has published instructions and reporting templates to assess the impact of its proposals and is inviting interested market participants to participate in the exercise.

2. Purpose and structure of the QIS2 exercise

QIS2 includes quantitative data collection template (template A) and a questionnaire (template B) designed to assess the impact of the specific proposals on minimum standards for haircut methodologies and numerical haircut floors set out in Annex 2 of the August Report. The data template seeks data such as on the value of securities financing transactions (broken down by counterparty types, collateral types and residual maturity of the collateral); the scale and nature of securities financing transactions not currently carried out with zero haircuts; and the value of additional collateral that counterparties would need to collect/post due to the introduction of the proposed numerical haircut floors. Meanwhile, the questionnaire aims to collect information on: the current haircut methodologies used by firms; the impact of proposed minimum haircut methodology standards on firms' haircut practices; which types of counterparties will be most affected by the proposed haircut floors; and the ability of firms to implement the proposed framework.

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

As in the case of QIS1, all data will be treated as strictly confidential, anonymised for global analysis (except the name of the jurisdiction where the head quarter is located and entity types) and used only for the purpose of assessing the impact of the minimum haircut proposals and refining these proposals. Interested firms are asked to fill in the templates and respond to the questionnaire on a voluntary basis by **23 December 2013**. Analysis of the QIS2 results will help the FSB refine and finalise its recommendations by the second quarter of 2014.

Firms interested in participating in QIS2 on a voluntary basis are asked to send their responses in the following manner:

- **Regulated financial intermediaries (i.e. banks and broker-dealers):** Interested firms are asked to inform the relevant FSB member national authorities in their home jurisdiction of their interest in participating in QIS2 by **15 November**. Firms will be asked to send their responses to the relevant national authority by 23 December. The relevant national authority will anonymise the responses and submit the QIS2 data and information to the FSB.
- **Other financial entities (including agent securities lenders and non-banks):** Interested firms are asked to inform the FSB Secretariat (e-mail: Yasushi.Shiina@bis.org) of their interest in participating in QIS2 by **15 November**. Firms will then be asked to send their responses by 23 December to either (i) the FSB Secretariat directly or (ii) the relevant FSB member national authority, who will be responsible for anonymising your data and information for submission to the FSB.

In case of questions, please contact the FSB Secretariat (Tel: +41 61 280 8579; E-mail: Yasushi.Shiina@bis.org). Below are detailed reporting instructions on how to fill in these documents.

3. General guidelines and definitions

The QIS2 exercise consists of three separate worksheets published on the FSB website² to be completed by: (i) regulated financial intermediaries (banks/brokers-dealers); (ii) agent securities lenders; and (iii) other non-bank reporting entities, respectively. For the purpose of QIS2, these terms are defined as follows:

- (i) **Banks and broker-dealers** are financial intermediaries that are subject to prudential liquidity and capital regulation. These entities should fill out the Bank/Broker-dealer template and should refer to the instructions in this document.
- (ii) **Agent securities lenders** are entities that lend securities on behalf of clients. These entities should fill out the Agent lender template and refer to the Agent lender instructions.
- (iii) **Non-banks** are entities that do not fit either of the above categories, and would include asset managers, insurance companies, pension funds and hedge funds, among

² http://www.financialstabilityboard.org/publications/r_131104.htm

others, that obtain financing using securities financing transactions. These entities should fill out the Non-bank template and refer to the Non-bank instructions.

4. Cover page – Respondent information

Respondents shall provide **outstanding transactions** data. Respondents are asked to complete the worksheet on a **globally consolidated basis** and not on a legal entity basis. All operating entities with material transactions should be included.

Jurisdiction should be reported according to the location of the head office of the reporting entity or holding company.

Respondents should report their positions **as at the end of June 2013**, but if this is not possible a recent date with average volume should be used. Reporting date should indicate the day from which the data used to complete the survey was taken, and should be in the format DD/MM/YYYY. Respondents should indicate whether the reporting date chosen for the exercise represents approximately an average day for the firm, based on the amount of transactions outstanding, or an unusually high/low volume day.

Data should be reported in the most relevant currency for the reporting entity's outstanding transactions, with the currency specified on the cover page. Currency unit used for reporting (1,000,000 currency units, unless otherwise specified) should be specified on the cover page. Respondents can either aggregate all transactions into a single currency or report major currencies in separate templates:

- **Aggregated template** – Respondents choosing this option should use the same currency and unit for all amounts throughout the templates. Other transactions and collateral denominated in other currencies should be converted to the reporting currency with the relevant exchange rate provided by national central banks (or alternative source to be specified) for the reference date.
- **Separate templates** – Respondents choosing this option should complete the template, at least once, for the currency in which they conduct the majority of their specified transactions. Respondents may also complete a separate template for each additional currency where they hold a large portfolio of specified transactions.

Total assets of the reporting entity shall be displayed on an accounting basis for banks, brokers–dealers, insurance companies, prime brokers, “others” and on a fair value measurement basis for hedge funds, exchange traded funds and other investment funds, pension funds, real estate investment trusts (REITs).

Outstanding repo transactions³ should be distinguished between centrally cleared repos and tri-party repos as specified on the cover page.⁴

³ They shall include transactions where cash is received for non-cash collateral with the main goal to receive financing.

⁴ Tri-party repo is ruled by an agreement where the three parties (the tri-party agent, the repo buyer and the repo seller) agree to a collateral management service agreement which includes an "eligible collateral profile". The tri-party agent acts as an intermediary between the two parties to the repo. It is responsible for the administration of the transaction including collateral allocation, marking to market, and substitution of collateral. The "eligible collateral profile" enables the repo buyer to define its risk appetite for collateral it is going to hold against cash lent. Collateral eligibility criteria could include asset type, issuer, currency, domicile, credit rating, maturity, index, issue size, average daily traded volume,

Outstanding reverse repo transactions⁵ should also be distinguished, where possible, between centrally cleared and tri-party reverse repos as specified on the cover page.

Cash collateral posted in securities borrowing transactions⁶ and **cash collateral received in securities lending transactions**⁷ should include transactions where the reporting entity's main goal is borrowing/lending specific securities.

Securities lending/borrowing against non-cash collateral should be displayed on a gross fair value measurement basis.

Total margin lending provided by a bank or a broker-dealer reporting entity should be displayed as the loan provided to counterparties for investing in securities, disciplined by a margin lending agreement.⁸

Assets available to post as collateral should be displayed on a fair value measurement basis. They include assets unencumbered on-balance sheet and collateral received in securities financing transactions eligible for reuse. A respondent should display data separately for each of them.

5. Reporting instructions for Banks/Broker-Dealers

For the purpose of this exercise, banks and broker dealers are defined as financial intermediaries that are subject to prudential liquidity and capital regulation.

5.1 Template A – Impact of numerical haircut floors

5.1.1 General discussion

Template A collects data on the outstanding amount of reverse repo transactions and margin lending provided, on the value of transactions that are conducted with zero haircuts, and on the potential impact of numerical haircut floors on the amount of collateral that needs to be posted by specified counterparties, for each type of collateral. These transactions exclude both centrally cleared transactions and transactions with governments, government agencies and

etc. Both repo buyer and repo seller enter into these transactions to avoid the administrative burden of bi-lateral repos. In addition, because the collateral is being held by an agent, counterparty risk is reduced.

⁵ They shall include transactions where the reporting entity provides cash for non-cash collateral with the main goal to provide financing to its counterparty.

⁶ Securities borrowing transactions are transactions where the reporting entity borrows specific securities and gives cash or other securities as collateral; the primary goal of the transactions is the reporting entity's need to borrow specific securities rather than to provide financing to its counterparty (the latter transaction would be a reverse repo for the reporting entity and a repo for the counterparty).

⁷ Securities lending transactions are transactions where the reporting entity lends specific securities required by its counterparties and receives cash or other securities as collateral; the primary goal of the transactions is the counterparty's need to borrow specific securities rather than reporting entity's need to receive financing (the latter transaction would be a reverse repo for the counterparty and a repo for the reporting entity) or to borrow specific securities (in a non-cash collateral securities lending transaction; the latter transaction would be a security borrowing transaction for the reporting entity).

⁸ Securities Margin Lending Transactions are transactions where a party extends credit to a counterparty in connection with the latter's purchase, carrying or trading of securities. Margin lending transactions do not include other loans that happen to be secured by securities collateral. In margin lending transactions, the loan amount is collateralised by securities whose value is greater than the amount of the loan.

central banks. Transactions with sovereign wealth funds should be reported and included in the “Other counterparties” category.

Template A requires that a respondent report the aggregate cash value of outstanding specified transactions as of the end of the reporting date as aggregated by type of collateral used in the transaction and the type of counterparty transacted with.

Template A includes four tables and each table should include outstanding specified transactions as of the reporting date, which are secured by a given type of collateral:

- Table 1 collects the cash value of reverse repurchase agreements and margin lending provided by counterparty and collateral type.
- Table 2 collects the cash value of transactions reported in Table 1 that are conducted with 0% haircuts.
- Table 3 collects the additional collateral that counterparties would need to post in order meet the minimum haircuts according to the “Proposed numerical haircut floors” table appearing to the right of Table 3 (as published in the August Report).
- Table 4 collects the additional collateral that counterparties would need to post in transactions above after applying alternative numerical haircut floors (for sensitivity analysis purposes) appearing in the “Alternative numerical haircut floors” table to the right of Table 4.

5.1.2 General instructions

When completing Tables 1 and 2 a respondent should breakdown specified transactions according to at least two basic counterparty types: “Banks/broker dealers” and “Other counterparties”. Where a respondent has the ability to further separate specified transactions by counterparty types, they should attempt to do so based on the full list of six counterparty groupings.

Tables 3 and 4 collect data on the impact of numerical haircut floors on the demand for collateral by specified counterparties, for each type of collateral.

As defined, specified transactions include:

- 1) Reverse repos
- 2) Margin lending provided
- 3) Securities borrowing transactions, but only if the respondent can confidently identify these securities borrowing transactions as being subject to numerical haircut floors (i.e. securities borrowing:
 - (i) Against cash collateral where cash is used/reinvested by the lender in ways that do not meet the requirements set out in Chapter 3.1 of the FSB August Report; and
 - (ii) Against non-cash collateral where the reporting entity borrows securities associated with a higher numerical haircut floor than that of the non-cash collateral given to the lender (e.g. borrowing equities against government bond collateral), and the lender re-uses the collateral received.

Tables 3 and 4 require that a respondent report the aggregate cash value of additional collateral that it estimates would be needed on outstanding specified transactions as of the reporting date, aggregated by type of collateral used in the transaction and the type of transaction. The respondent should estimate the potential impact of the numerical haircut floors on the specified transactions on a gross basis, i.e. no netting between transactions should be recognised.

5.1.3 Reporting instructions – Table 1

A respondent should include in Table 1 all outstanding specified transactions, as at the reporting date, where a respondent received the specified collateral in exchange for providing cash financing.

For the purposes of this data collection exercise, collateral should be divided into the following categories:

| <u>Category</u> | <u>Definition</u> |
|--|--|
| Government securities⁹ | <ul style="list-style-type: none"> • Sovereign bonds • Treasury bills • Central bank securities • Securities fully guaranteed by the central government |
| Securitised products | <ul style="list-style-type: none"> • Mortgage-backed securities (MBS) • Asset-backed securities (ABS) • Asset-backed commercial paper (ABCP) • Commercial mortgage-backed securities (CMBS) • Collateralised debt obligations (CDOs) <p>Government sponsored securitisations should be counted as “Government Securities” where they benefit from an explicit government guarantee, and as “Securitised products” otherwise.</p> |
| Corporate debt | The debt of any entity that is a financial or non-financial firm, which is not a government entity or explicitly government guaranteed. This includes covered bonds. |
| Main index equities | <p>Equity securities included in the primary, country-specific equity indexes for each national equity market.</p> <p>Examples of primary, country-specific equity indexes would include:</p> <ul style="list-style-type: none"> • S&P 500 Index, NASDAQ Composite Index or Dow Jones Industrial Average (USA) • the FTSE 100 Index (UK) • the Nikkei Index or Tokyo Stock Price Index (TOPIX) (Japan) • the S&P/TSX Composite Index (Canada) • the DAX Index (Germany) • the FTSE MIB Index (Italy) • or the CAC 40 Index (France) <p>Equities outside of primary, country-specific indexes should be included in the “Other collateral types” category.</p> |
| Other | All other securities. |

Where possible, respondents should divide collateral qualifying as “corporate debt” and “securitised products” by maturity (≤ 1 year and FRNs; > 1 year and ≤ 5 years; and > 5 years). If a respondent is not able to provide this break down, it should instead fill in the “Total” column.

A respondent should aggregate all outstanding specified transactions, as of the reporting date, for each cell in Table 1 according to the counterparty to the transaction, type of collateral and residual maturity of the collateral. An illustrative example is provided below in Example 1.

⁹ If the FSB decides to implement numerical haircut floors through regulatory capital regimes for regulated intermediaries in its final recommendations forthcoming in spring 2014, the definition of government securities will be aligned with Basel III definition for sovereign exposures with zero per cent risk weight.

Example 1-1: Completing Table 1 – Hypothetical Transactions

| | Transaction Type | Counterparty | Cash Lent | Collateral Received |
|----|------------------|---------------------|-----------------|---|
| 1. | Reverse Repo | Bank A | USD 100 million | Country X Debt with a cash value (value after 5% haircut) of USD 100 million and a term-to-maturity of 15 years |
| 2. | Reverse Repo | Bank B | USD 100 million | Country Y debt with a cash value (value after 0% haircut) of USD 100 million and a term-to-maturity of 3 years |
| 3. | Margin lending | Insurance Company C | USD 100 million | ABS with a cash value (value after 2% haircut) of USD 100 million and a term-to-maturity of 8 years |
| 4. | Margin lending | Hedge Fund D | USD 100 million | ABS with a cash value (value after 3% haircut) of USD 100 million and a term-to-maturity of 3 years |
| 5. | Reverse Repo | Pension Fund E | USD 200 million | Company Z debt with a cash value (value after a 0% haircut) of USD 200 million and a term-to-maturity of 1 year |

If the respondent is completing Table 1, but can only divide counterparty types by two groupings, “Banks/broker-dealers” and “Other counterparties”, the response would be as below.

Both Transactions 1 and 2 in are with bank counterparties while the received collateral is sovereign debt. The cash value of these two transactions is combined and reported together in the same cell.

Example 1-2: Completing Table 1 – Partial Division of Counterparties

| Counterparty type | Collateral type | | | | | | | | | | Total | |
|--|-----------------------|----------------|----------|----------|------------|----------------------|------------|------------|------------|---------------------|----------|------------|
| | Government securities | Corporate debt | | | | Securitised products | | | | Main index equities | | Other |
| | | ≤1Y | 1Y-5Y | >5Y | Total | ≤1Y | 1Y-5Y | >5Y | Total | | | |
| Bank / Broker-dealer | 200 | | | | | | | | | | | 200 |
| Hedge funds | | | | | | | | | | | | 0 |
| Exchange-traded funds and other investment funds | | | | | | | | | | | | 0 |
| Pension funds / Insurance companies | | | | | | | | | | | | 0 |
| Real estate investment trusts | | | | | | | | | | | | 0 |
| Other | | 200 | | | 200 | | 100 | 100 | 200 | | | 400 |
| Total | 200 | 200 | 0 | 0 | 200 | 0 | 100 | 100 | 200 | 0 | 0 | 600 |

If the respondent had the ability to further break down the counterparties to its transactions, according to the six counterparty buckets presented, then the result would be as below and transactions with hedge funds and insurers would no longer be combined.

Example 1-3: Completing Table 1 – Full Division of Counterparties

| Counterparty type | Collateral type | | | | | | | | | | Total | |
|--|-----------------------|----------------|----------|----------|------------|----------------------|------------|------------|------------|---------------------|----------|------------|
| | Government securities | Corporate debt | | | | Securitised products | | | | Main index equities | | Other |
| | | ≤1Y | 1Y-5Y | >5Y | Total | ≤1Y | 1Y-5Y | >5Y | Total | | | |
| Bank / Broker-dealer | 200 | | | | | | | | | | | 200 |
| Hedge funds | | | | | | | 100 | | 100 | | | 100 |
| Exchange-traded funds and other investment funds | | | | | | | | | | | | 0 |
| Pension funds / Insurance companies | | 200 | | | 200 | | | 100 | 100 | | | 300 |
| Real estate investment trusts | | | | | | | | | | | | 0 |
| Other | | | | | | | | | | | | 0 |
| Total | 200 | 200 | 0 | 0 | 200 | 0 | 100 | 100 | 200 | 0 | 0 | 600 |

5.1.4 Reporting instructions – Table 2

A respondent should include in Table 2 the cash value of all transactions reported in Table 1 that occurred with a 0% haircut.

Examples 1-4 and 1-5 are based on the transactions appearing in Example 1-1.

If the respondent is completing Table 2, but can only divide counterparty types by two groupings, “Banks/broker-dealers” and “Other counterparties”, the response would be as below.

Example 1-4: Completing Table 2 – Partial Division of Counterparties

| Counterparty type | Collateral type | | | | | | | | | | Total | |
|--|-----------------------|----------------|----------|----------|------------|----------------------|----------|----------|----------|---------------------|----------|------------|
| | Government securities | Corporate debt | | | | Securitised products | | | | Main index equities | | Other |
| | | ≤1Y | 1Y-5Y | >5Y | Total | ≤1Y | 1Y-5Y | >5Y | Total | | | |
| Bank / Broker-dealer | 100 | | | | | | | | | | | 100 |
| Hedge funds | | | | | | | | | | | | 0 |
| Exchange-traded funds and other investment funds | | | | | | | | | | | | 0 |
| Pension funds / Insurance companies | | | | | | | | | | | | 0 |
| Real estate investment trusts | | | | | | | | | | | | 0 |
| Other | | 200 | | | 200 | | | | | | | 200 |
| Total | 100 | 200 | 0 | 0 | 200 | 0 | 0 | 0 | 0 | 0 | 0 | 300 |

If the respondent had the ability to further break down the counterparties to its transactions, according to the six counterparty groups presented, then the result would be as below and transactions with hedge funds and insurers would no longer be combined.

Example 1-5: Completing Table 2 – Full Division of Counterparties

| Counterparty type | Collateral type | | | | | | | | | | Total | |
|--|-----------------------|----------------|----------|----------|------------|----------------------|----------|----------|----------|---------------------|----------|------------|
| | Government securities | Corporate debt | | | | Securitised products | | | | Main index equities | | Other |
| | | ≤1Y | 1Y-5Y | >5Y | Total | ≤1Y | 1Y-5Y | >5Y | Total | | | |
| Bank / Broker-dealer | 100 | | | | | | | | | | | 100 |
| Hedge funds | | | | | | | | | | | | 0 |
| Exchange-traded funds and other investment funds | | | | | | | | | | | | 0 |
| Pension funds / Insurance companies | | 200 | | | 200 | | | | | | | 200 |
| Real estate investment trusts | | | | | | | | | | | | 0 |
| Other | | | | | | | | | | | | 0 |
| Total | 100 | 200 | 0 | 0 | 200 | 0 | 0 | 0 | 0 | 0 | 0 | 300 |

5.1.5 Reporting instructions – Table 3

A respondent should include in Table 3 all increases in collateral (additional collateral) that would be received as a result of the imposition of minimum haircuts, as at the reporting date, where the respondent received the specified collateral in exchange for providing cash financing.

A respondent should aggregate the increase in collateral on all outstanding specified transactions, as of the reporting date, for each cell in Table 3 according to the counterparty to the transaction, type of collateral and residual maturity of the collateral. Respondents should calculate the additional collateral according to the “Proposed numerical haircut floors” table appearing to the right of Table 3.

Examples 1-6 and 1-7 are based on the transactions appearing in Example 1-1.

Example 1-6: Calculating Additional Collateral

| | Transaction Type | Cash Lent | Collateral Received | New Minimum Haircut | Additional Collateral |
|----|------------------|-----------------|---|---------------------|--|
| 1. | Reverse Repo | USD 100 million | Country X Debt with a cash value (value after 5% haircut) of USD 100 million and a term-to-maturity of 15 years | N/A | |
| 2. | Reverse Repo | USD 100 million | Country Y debt with a cash value (value after 0% haircut) of USD 100 million and a term-to-maturity of 3 years | N/A | |
| 3. | Margin lending | USD 100 million | ABS with a cash value (value after 2% haircut) of USD 100 million and a term-to-maturity of 8 years | 4% | $(100 / (1 - 0.04)) - (100 / (1 - 0.02)) = 2.125$ |
| 4. | Margin lending | USD 100 million | ABS with a cash value (value after 3% haircut) of USD 100 million and a term-to-maturity of 3 years | 2% | None (original haircut exceeds proposed numerical haircut floor) |
| 5. | Reverse Repo | USD 200 million | Company Z debt with a cash value (value after a 0% haircut) of USD 200 million and a term-to-maturity of 1 year | 0.5% | $(200 / (1 - 0.005)) - (200 / (1 - 0)) = 1$ |

Example 1-7: Completing Table 2 – Full Division of Counterparties

| Transaction type | Collateral type | | | | | | | | | | | Total |
|--|-----------------------|----------------|----------|----------|----------|----------------------|----------|--------------|--------------|---------------------|----------|--------------|
| | Government securities | Corporate debt | | | | Securitised products | | | | Main index equities | Other | |
| | | ≤1Y | 1Y-5Y | >5Y | Total | ≤1Y | 1Y-5Y | >5Y | Total | | | |
| Reverse repos | | 1 | | | 1 | | | | | | | 1 |
| Securities lending against cash collateral | | | | | | | | | | | | 0 |
| Securities lending against non-cash collateral | | | | | | | | | | | | 0 |
| Margin Lending | | | | | | | | 2.125 | 2.125 | | | 2.125 |
| Total | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2.125 | 2.125 | 0 | 0 | 3.125 |

5.1.6 Reporting instructions – Table 4:

A respondent should complete Table 4 in the same manner as Table 3 with the exception that the alternative numerical haircut floors be used. The respondent should record the increase in collateral that counterparties need to post relative to what they currently post (i.e. relative to the amount of collateral for transactions reported in Table 1). The alternative numerical haircut floors are detailed in the “Alternative numerical haircut floors” table to the right of Table 4.

Examples 1-8 and 1-9 are based on the transactions appearing in Example 1-1.

Example 1-8: Calculating Additional Collateral

| | Transaction Type | Cash Lent | Collateral Received | New Minimum Haircut | Additional Collateral |
|----|------------------|-----------------|---|---------------------|---|
| 1. | Reverse Repo | USD 100 million | Country X Debt with a cash value (value after 5% haircut) of USD 100 million and a term-to-maturity of 15 years | N/A | |
| 2. | Reverse Repo | USD 100 million | Country Y debt with a cash value (value after 0% haircut) of USD 100 million and a term-to-maturity of 3 years | N/A | |
| 3. | Margin lending | USD 100 million | ABS with a cash value (value after 2% haircut) of USD 100 million and a term-to-maturity of 8 years | 8% | $(100 / (1 - 0.08)) - (100 / (1 - 0.02)) = 6.655$ |
| 4. | Margin lending | USD 100 million | ABS with a cash value (value after 3% haircut) of USD 100 million and a term-to-maturity of 3 years | 4% | $(100 / (1 - 0.04)) - (100 / (1 - 0.03)) = 1.074$ |
| 5. | Reverse Repo | USD 200 million | Company Z debt with a cash value (value after a 0% haircut) of USD 200 million and a term-to-maturity of 1 year | 1% | $(200 / (1 - 0.01)) - (200 / (1 - 0)) = 2.020$ |

Example 1-9: Completing Table 2 – Full Division of Counterparties

| Transaction type | Collateral type | | | | | | | | | | | Total |
|--|-----------------------|----------------|----------|----------|--------------|----------------------|--------------|--------------|--------------|---------------------|----------|--------------|
| | Government securities | Corporate debt | | | | Securitised products | | | | Main index equities | Other | |
| | | ≤1Y | 1Y-5Y | >5Y | Total | ≤1Y | 1Y-5Y | >5Y | Total | | | |
| Reverse repos | | 2.020 | | | 2.020 | | | | | | | 2.020 |
| Securities lending against cash collateral | | | | | | | | | | | | 0 |
| Securities lending against non-cash collateral | | | | | | | | | | | | 0 |
| Margin Lending | | | | | | | 1.074 | 6.655 | 7.729 | | | 7.729 |
| Total | 0 | 2.020 | 0 | 0 | 2.020 | 0 | 1.074 | 6.655 | 7.729 | 0 | 0 | 9.749 |

Annex 1: Reporting Template (Quantitative Questions) for Regulated financial intermediaries (Banks and broker-dealers)¹⁰



FINANCIAL
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BOARD

WORKSTREAM ON SECURITIES LENDING AND REPOS (WS5)

Strictly Confidential

| Reporting template for QIS2 on minimum haircut standards | |
|---|------------------------------------|
| To be completed by reporting entities that are regulated financial intermediaries (banks and broker-dealers) | |
| Information as of end-June 2013, unless otherwise specified in Reporting date | |
| Name of reporting entity | |
| Type of reporting entity | Regulated financial intermediaries |
| Jurisdiction | |
| Reporting date (DD/MM/YYYY) | |
| Relative volume on this date (high/average/low) | |
| Reporting currency | |
| Reporting unit | |
| Total assets | |
| Outstanding reverse repo transactions | |
| of which: centrally cleared | |
| of which: tri-party | |
| Outstanding repo transactions | |
| of which: centrally cleared | |
| of which: tri-party | |
| Cash collateral posted in securities borrowing transactions | |
| Cash collateral received in securities lending transactions | |
| Securities lending/borrowing against non-cash collateral | |
| of which: securities lending | |
| Total margin lending provided | |
| Assets available to post as collateral | |
| of which: unencumbered on-balance sheet assets | |
| of which: collateral received eligible for reuse | |
| List of templates | |
| Template A: Impact of numerical haircut floors | |
| Please refer to the accompanying document for reporting instructions. | |
| In case of queries, please contact the relevant national authorities or the FSB Secretariat (E-mail: Yasushi.Shiina@bis.org). | |

¹⁰ This template is available as an Excel file at http://www.financialstabilityboard.org/publications/r_131104.htm.

Template A: Impact of numerical haircut floors

1) Cash value of total reverse repo transactions and margin lending provided

Centrally cleared transactions and transactions with governments, government agencies and central banks are excluded.
 Please exclude securities borrowing transactions unless you can correctly identify (1) securities borrowing against cash collateral where the cash is used/reinvested by the lender in ways that do not meet the minimum standards set out in Section 3.1 of the August Report and (2) securities borrowing against non-cash collateral where the reporting entity borrows securities associated with a higher numerical haircut floor than that of the non-cash collateral given to the lender and the lender re-uses collateral. Please include the cash value of securities borrowing transactions falling into categories (1) and (2) only if you can correctly identify them but exclude them if in doubt'.

| Counterparty type | Collateral type | | | | | | | | | | | Total |
|--|-----------------------|-----------------|-------------------|-------------------|-------|----------------------|-------------------|-------------------|-------|---------------------|--------|-------|
| | Government securities | Corporate debt | | | | Securitised products | | | | Main index equities | Other* | |
| | | ≤1 year and FRN | 1 year to 5 years | more than 5 years | Total | ≤1 year and FRN | 1 year to 5 years | more than 5 years | Total | | | |
| Bank / Broker-dealer | | | | | | | | | | | | 0 |
| Hedge funds | | | | | | | | | | | | 0 |
| Exchange-traded funds and other investment funds | | | | | | | | | | | | 0 |
| Pension funds / Insurance companies | | | | | | | | | | | | 0 |
| Real estate investment trusts | | | | | | | | | | | | 0 |
| Other* | | | | | | | | | | | | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*Please specify major types of collateral and counterparties reported in "Other":

2) Cash value of transactions reported above that are conducted with 0% haircuts

| Counterparty type | Collateral type | | | | | | | | | | | Total |
|--|-----------------------|-----------------|-------------------|-------------------|-------|----------------------|-------------------|-------------------|-------|---------------------|-------|-------|
| | Government securities | Corporate debt | | | | Securitised products | | | | Main index equities | Other | |
| | | ≤1 year and FRN | 1 year to 5 years | more than 5 years | Total | ≤1 year and FRN | 1 year to 5 years | more than 5 years | Total | | | |
| Bank / Broker-dealer | | | | | | | | | | | | 0 |
| Hedge funds | | | | | | | | | | | | 0 |
| Exchange-traded funds and other investment funds | | | | | | | | | | | | 0 |
| Pension funds / Insurance companies | | | | | | | | | | | | 0 |
| Real estate investment trusts | | | | | | | | | | | | 0 |
| Other | | | | | | | | | | | | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3) Additional collateral that counterparties need to post in transactions above after applying proposed numerical haircut floors

Numerical haircut floors would apply to non-centrally cleared securities financing transaction in which entities not subject to regulation of capital and liquidity/maturity transformation receive financing from financial entities subject to such regulation against collateral other than government securities.

| Transaction type | Collateral type | | | | | | | | | | | Total |
|--|-----------------------|-----------------|-------------------|-------------------|-------|----------------------|-------------------|-------------------|-------|---------------------|-------|-------|
| | Government securities | Corporate debt | | | | Securitised products | | | | Main index equities | Other | |
| | | ≤1 year and FRN | 1 year to 5 years | more than 5 years | Total | ≤1 year and FRN | 1 year to 5 years | more than 5 years | Total | | | |
| Reverse repos | | | | | | | | | | | | 0 |
| Securities borrowing against cash collateral | | | | | | | | | | | | 0 |
| Securities borrowing against non-cash collateral | | | | | | | | | | | | 0 |
| Margin lending | | | | | | | | | | | | 0 |
| Total | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Proposed numerical haircut floors

| Residual maturity of collateral | Haircut level | |
|--|-----------------------------|----------------------|
| | Corporate and other issuers | Securitised products |
| ≤ 1 year debt securities, and FRNs | 0.5% | 1% |
| > 1 year, ≤ 5 years debt securities | 1% | 2% |
| > 5 years debt securities | 2% | 4% |
| Main index equities | 4% | |
| Other assets within the scope of the framework | 7.5% | |

4) Additional collateral that counterparties need to post in transactions above after applying alternative numerical haircut floors

Numerical haircut floors would apply to non-centrally cleared securities financing transaction in which entities not subject to regulation of capital and liquidity/maturity transformation receive financing from financial entities subject to such regulation against collateral other than government securities.

| Transaction type | Collateral type | | | | | | | | | | | Total |
|--|-----------------------|-----------------|-------------------|-------------------|-------|----------------------|-------------------|-------------------|-------|---------------------|-------|-------|
| | Government securities | Corporate debt | | | | Securitised products | | | | Main index equities | Other | |
| | | ≤1 year and FRN | 1 year to 5 years | more than 5 years | Total | ≤1 year and FRN | 1 year to 5 years | more than 5 years | Total | | | |
| Reverse repos | | | | | | | | | | | | 0 |
| Securities borrowing against cash collateral | | | | | | | | | | | | 0 |
| Securities borrowing against non-cash collateral | | | | | | | | | | | | 0 |
| Margin lending | | | | | | | | | | | | 0 |
| Total | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Alternative numerical haircut floors

| Residual maturity of collateral | Haircut level | |
|--|-----------------------------|----------------------|
| | Corporate and other issuers | Securitised products |
| ≤ 1 year debt securities, and FRNs | 1% | 2% |
| > 1 year, ≤ 5 years debt securities | 2% | 4% |
| > 5 years debt securities | 4% | 8% |
| Main index equities | 7.5% | |
| Other assets within the scope of the framework | 12.5% | |

Annex 2: Reporting Template (Qualitative Questions) for All Firms¹¹

Haircut levels and impact of proposed numerical haircut floors

- 1) How do the proposed numerical haircut floors compare to haircuts currently applied in your securities financing transactions (e.g. broadly lower, broadly the same or broadly higher)? Please distinguish by collateral type and counterparty type.

- 2) Would you adjust your haircut practices in response to the proposed numerical haircut floors, and if so how? For instance, would you lower current haircuts that are above the proposed floors and/or increase those below the floors?

- 3) Would you expect other market participants to adjust haircut practices in response to the proposed numerical haircut floors? For instance, would you expect other market participants to lower haircuts if the floors are lower than current market practices?

- 4) Please specify the type of firms and/or collateral you typically conduct securities financing transactions with 0% haircuts, and why a 0% haircut is appropriate.

- 5) What effect, if any, do you expect the proposed numerical haircut floors would have on your firm's activity with respect to the following:

¹¹ This template is available as a separate file at http://www.financialstabilityboard.org/publications/r_131104.htm.

- (i) Volume of transactions and outstanding positions in repo and other securities financing markets. Please differentiate by collateral and counterparty type and explain any expected shift in activity (e.g. shift in collateral composition or between secured and unsecured funding).

 - (ii) Likelihood of new transaction types or structures to emerge, or any other “structural changes”, either in order to avoid or mitigate the impact of the proposed numerical haircut floors, or as a result of changes in the securities financing market that arise from the new haircut requirements.
- 6) What offsets, if any, could reduce the anticipated impacts noted in question 5 on your firm? For example, would you anticipate lower capital charges in some cases as a result of reduced counterparty credit exposures?
- 7) What effect, if any, do you expect the proposed minimum numerical haircut floors to have on leverage (your own or your counterparties)? Please explain.
- 8) What effect, if any, do you expect the proposed numerical haircut floors to have on pricing of securities financing transactions? Please explain.

- 9) Which counterparties or types of firms would be most affected, if any, by the proposed numerical haircut floors? Please explain.

Haircut methodologies and impact of proposed minimum methodology standards

- 1) To what extent, if any, does current regulation play a role in determining your haircuts on securities financing transactions? Please explain (including which current regulation and how).

- 2) What methodology (or methodologies) do you currently use to set haircuts on securities financing transactions? Do you employ the standard supervisory framework for setting haircuts or do you use one or more quantitative models?

- 3) Does your firm follow high-level principles to determine which methodologies to use for setting haircuts on securities financing transactions? If so, please describe the broad features of these principles.

- 4) Do the methodologies your firm employs for setting haircuts on securities financing transactions comply with the proposed minimum methodology standards,¹² summarised in the table below? Please explain any material deviation from the proposed minimum standards on haircut methodologies, distinguishing by market segment where relevant. If possible, please provide an estimate of the change in your demand for collateral that would result from a change to the proposed minimum methodology standards.

| (i) Proposed minimum standards for methodologies used by market participants to calculate haircuts on securities financing transactions | Compliance of your firm’s current haircut methodologies with each proposed minimum standard <i>(Indicate whether your methodologies comply, partially comply, or do not comply. Please explain.)</i> |
|--|---|
| Haircut methodologies should be designed to limit potential procyclical fluctuations | |
| Haircuts should be set to cover, at a high level of confidence (i.e. at least at a 95 th percentile, one-tailed confidence interval), the maximum expected decline in the market price of the collateral asset, over a conservative liquidation horizon | |
| The maximum price decline used to derive the haircut should be calculated using a time series of price data that covers at least one stress period | |
| Where feasible, historical bid-ask spreads and pricing uncertainty should be examined to consider the possibility that stressed market conditions may lead to a widening of bid-ask spreads | |
| The assumed liquidation horizon should be conservative, reflect the expected liquidity/illiquidity of the asset in stressed market conditions, and depend on the relevant market characteristics of the collateral | |
| Haircuts should primarily reflect the risk of fluctuations in the price of collateral (market risk), 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” between collateral value and counterparty default. Specific characteristics of the collateral (asset type, issuer creditworthiness, residual maturity, price sensitivity, optionality, complexity of structure, expected liquidity in stressed periods and frequency of collateral valuation and margining) should also be taken into account. | |
| Where necessary, haircuts should 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 | |
| Correlation between securities accepted as collateral and securities loaned in securities lending transactions should be taken into account where relevant | |

¹² For details, see http://www.financialstabilityboard.org/publications/r_130829b.pdf. The minimum standards on haircut methodologies are set out in sections 1-3 of Annex 2.

| <u>Additional guidance for methodologies used by market participants to calculate margin on a portfolio basis (please answer only if applicable)</u> | |
|--|--|
| Methodologies for portfolio margin calculation should not be procyclical. As far as possible, methodologies should not lead to an 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. | |
| When setting margin requirements for different counterparties/portfolios, market participants should consider the following: | |
| (i) market risk of the portfolio | |
| (ii) portfolio concentration by geographies, economic sectors and individual issuers | |
| (iii) illiquidity of the portfolio | |
| (iv) risks arising from non-correlated price and spread relationships between lent and collateral portfolio assets | |
| Methodologies should include robust stress testing of margin requirements against a range of historical and hypothetical stress scenarios. These 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. | |

- 5) If your firm uses quantitative models to set haircuts, please briefly describe the model(s) and how it is (they are) used, including how haircuts calculated by the model are applied to individual transactions, and what additional factors, if any, are considered.

6) Please describe some of the model parameters (if you use more than one model, please list for the one covering the largest value of transactions):

| | |
|---|--|
| Type of model (e.g. VaR, scenario-based model, factor model, etc.) | |
| Historical observation period (please specify whether it includes a stress period and if so, how it is defined) | |
| Level of confidence | |
| Assumed holding or liquidation period | |
| Model rights (e.g. proprietary or vendor model) | |
| Any other significant features | |

7) Do the haircuts generated by your models vary based on changing market conditions, for example short-term fluctuations in price volatility? Please explain.

8) Do you anticipate any change in the variation or procyclicality of haircut levels for your firm as a result of the proposed recommendations in Annex 2 of the FSB report (both the numerical haircut floors and minimum haircut methodology standards)? Please explain.

Ability to implement the proposed framework

- 1) As currently proposed, the numerical haircut floors would apply at transaction level on a gross basis, i.e. every in-scope transaction would need to have a haircut above the associated numerical floor, without recognition of netting between transactions. Alternatively, the numerical haircut floors can apply at netting-set level on a net basis, i.e. regulated financial intermediaries need to ensure their net exposures to other entities in securities lending and repos are sufficiently over-collateralised at the netting-set level. How would the potential impact of the proposed framework change if the alternative approach is used?

- 2) What changes to the methodologies you use to set haircuts are needed, if any, in order to comply with the proposed minimum standards? Please discuss possible difficulties in implementing the standards, if any.

- 3) Can cash-collateralised securities lending transactions where the lender of securities reinvests the cash collateral into a separate investment fund be distinguished from other transactions, as per the proposed implementation framework? Please explain and, if possible, propose alternatives.

- 4) Can cash-collateralised securities lending transactions where the lender of securities uses the cash to finance margin payments to a central counterparty be distinguished from other transactions? Please explain.

