Meeting Between Staff of the Federal Reserve Board, the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC), and the Securities Industry and Financial Markets Association
May 27, 2015

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Summary: Staff of the Federal Reserve Board, Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation met with representatives of the Securities Industry and Financial Markets Association (SIFMA) to discuss the Net Stable Funding Ratio standard issued by the Basel Committee on Banking Supervision. Specifically, SIFMA representatives presented the attached information and discussed the potential treatment of independent assets and liabilities and derivatives in a future rulemaking to establish the net stable funding ratio in the United States.

Attachment

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NET STABLE FUNDING RATIO

MAY 27, 2015

Key features of the NSFR

- The Net Stable Funding Ratio (NSFR) is new prudential standard designed to ensure that banking organizations have sufficiently durable funding to support their activities
  - Basel Committee finalized the NSFR in October 2014
  - U.S. banking agencies are expected to release a proposed rule in mid-2015
  - Target compliance date for NSFR is January 2018
- NSFR formula: Available Stable Funding (ASF) / Required Stable Funding (RSF) > 100%
- ASF amounts are determined by applying haircuts to liabilities, with the haircuts designed to capture relative funding stability. Examples:
  - Capital and other funding sources with one year or greater maturity: 100% ASF
  - Retail demand deposits: 95% ASF
  - Funding from non-financial corporates with <12 month maturity: 50% ASF
  - Funding from financial institutions with 6-12 month maturity: 50% ASF
  - Funding from financial institutions with <6 month maturity: 0% ASF
- RSF amounts are determined through a similar process, with haircuts applied to assets. Examples:
  - Unencumbered U.S. Treasury securities: 5% RSF
  - Reverse repos to financial institutions secured by LCR Level 1 assets (e.g., USTs): 10% RSF
  - Reverse repos to financial institutions secured by other assets: 15% RSF
  - Unencumbered LCR Level 2B assets (e.g., mainline debt and equity securities): 50% RSF
  - Initial margin posted by a bank: 85% RSF
  - Non-mainline unencumbered equity securities: 85% RSF
- Derivatives subject to a separate RSF methodology

Major conceptual considerations in NSFR

- NSFR is not ALM-focused
  - ASF/RSF haircuts apply to liabilities and assets, respectively, is isolation from each other, without considering how specific liabilities support specific assets
  - The funding requirements for an equity security will vary, for example, depending on whether it is being held in market-making inventory or as a hedge fully funded by client initial margin
  - The Basel Committee left the door open for some ALM principles to be incorporated by national authorities through Paragraph 45 of the Basel NSFR text, which recognizes “interdependent” transactions
- 6- and 12- month ASF calibrations result in funding cliff effects
  - Repo funding received from financial institutions receives 100% ASF where maturity is >1 year, 50% ASF where maturity is 6-12 months, and 0% ASF where maturity is <6 months
  - As a practical matter, these funding cliffs make it difficult to manage a liability curve that necessarily ranges between short- and long-dated maturities
  - 0% ASF recognition for 0-6 month liabilities compounds challenges presented by lack of ALM focus, since many short-term assets have a matching short-term liability
- Derivatives methodology is complex and does not appear to follow funding needs in all cases
  - Derivatives assets, net of derivatives liabilities, receive 100% RSF, with derivatives assets only reduced by variation margin where margin received meets Supplementary Leverage Ratio (SLR) netting standards (e.g., cash collateral that fully extinguishes the exposure)
  - In addition, 20% of derivatives liabilities receive 100% RSF
  - In addition, 85% RSF applies to initial margin posted

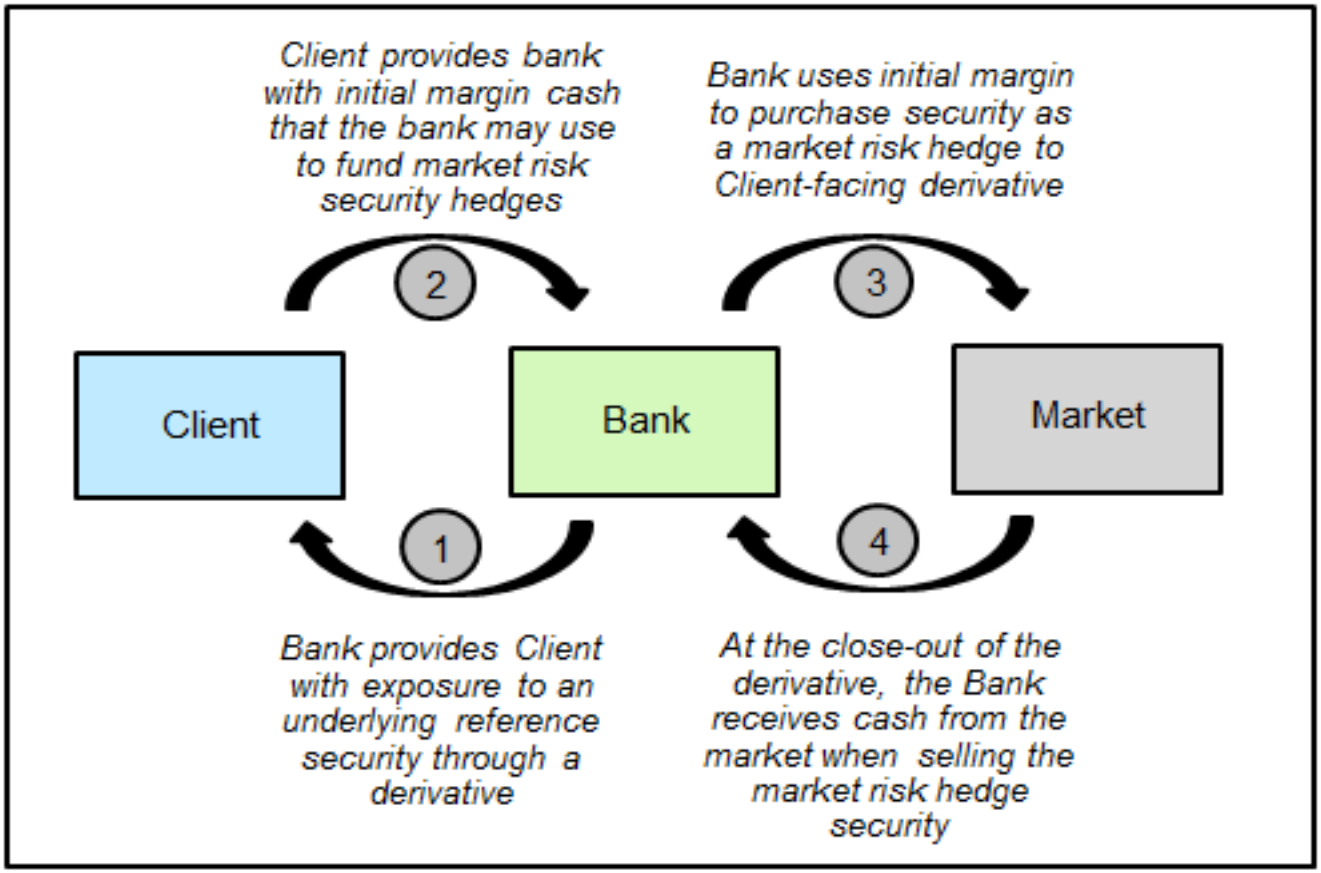
NSFR focus areas

- Paragraph 45
  - Paragraph 45 of the NSFR permits national authorities to recognize “interdependent” assets and liabilities as linked for NSFR purposes
  - Industry has met with U.S. banking agencies and European regulators to recommend transaction examples that meet the interdependent criteria (see interdependent transaction proposal document):
    (1) Derivatives market risk hedges
    (2) Client short facilitation
    (3) Client short facilitation in derivative form
    (4) Firm shorts
    (5) Segregated client assets
    (6) Client clearing transactions
  - Repo-funded market risk hedges to derivatives might also meet the criteria in some cases
  - Explanatory diagrams included in Annex
  - Many of the Paragraph 45 transaction examples involve areas where the SEC has traditionally been the primary regulator
- Derivatives
  - Application of SLR netting standards do not reflect full funding value of margin received (e.g., margin in the form of U.S. Treasury securities and, in some cases, cash would be disqualified)
  - 100% RSF on 20% of derivatives liabilities introduced in final NSFR framework without prior proposal for comment
  - 85% RSF initial margin should take into consideration the funding value of collateral received

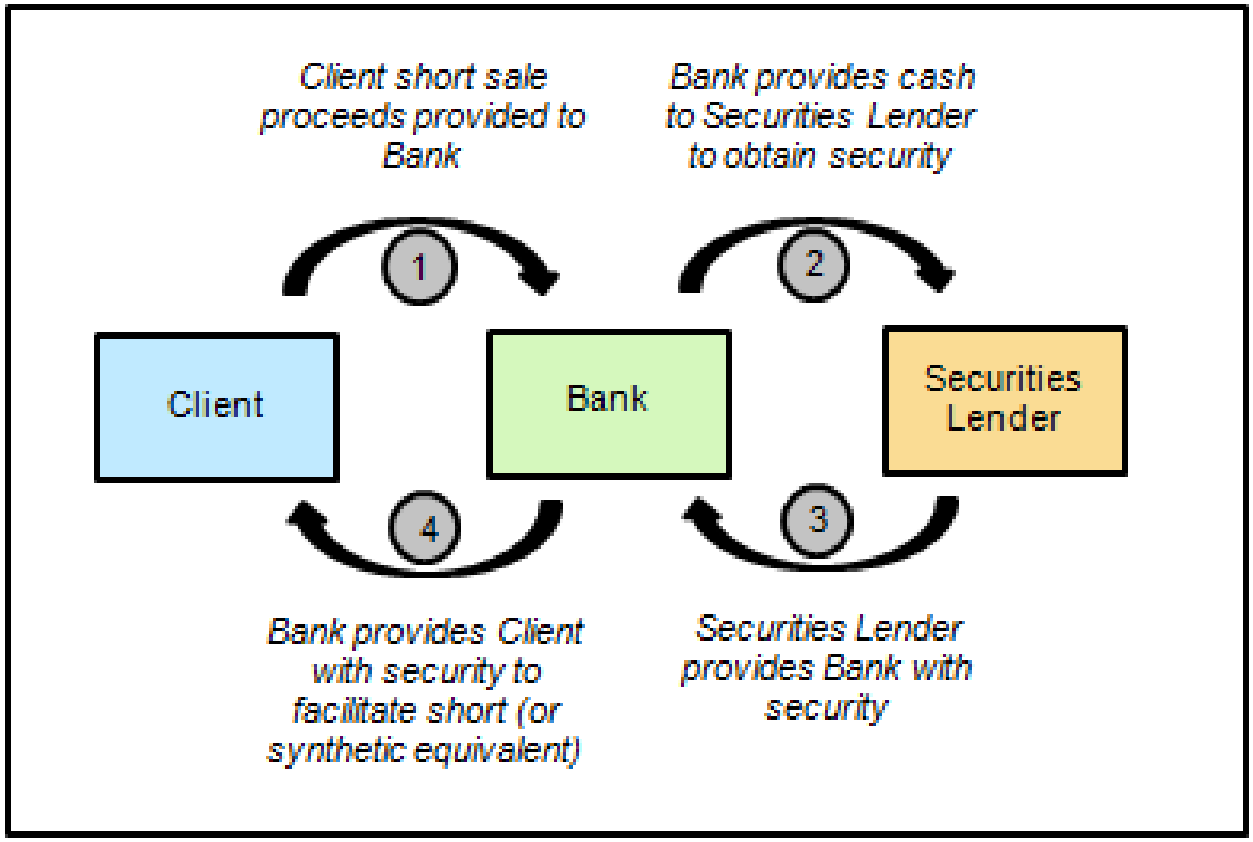
Annex

NSFR interdependent transaction proposed examples

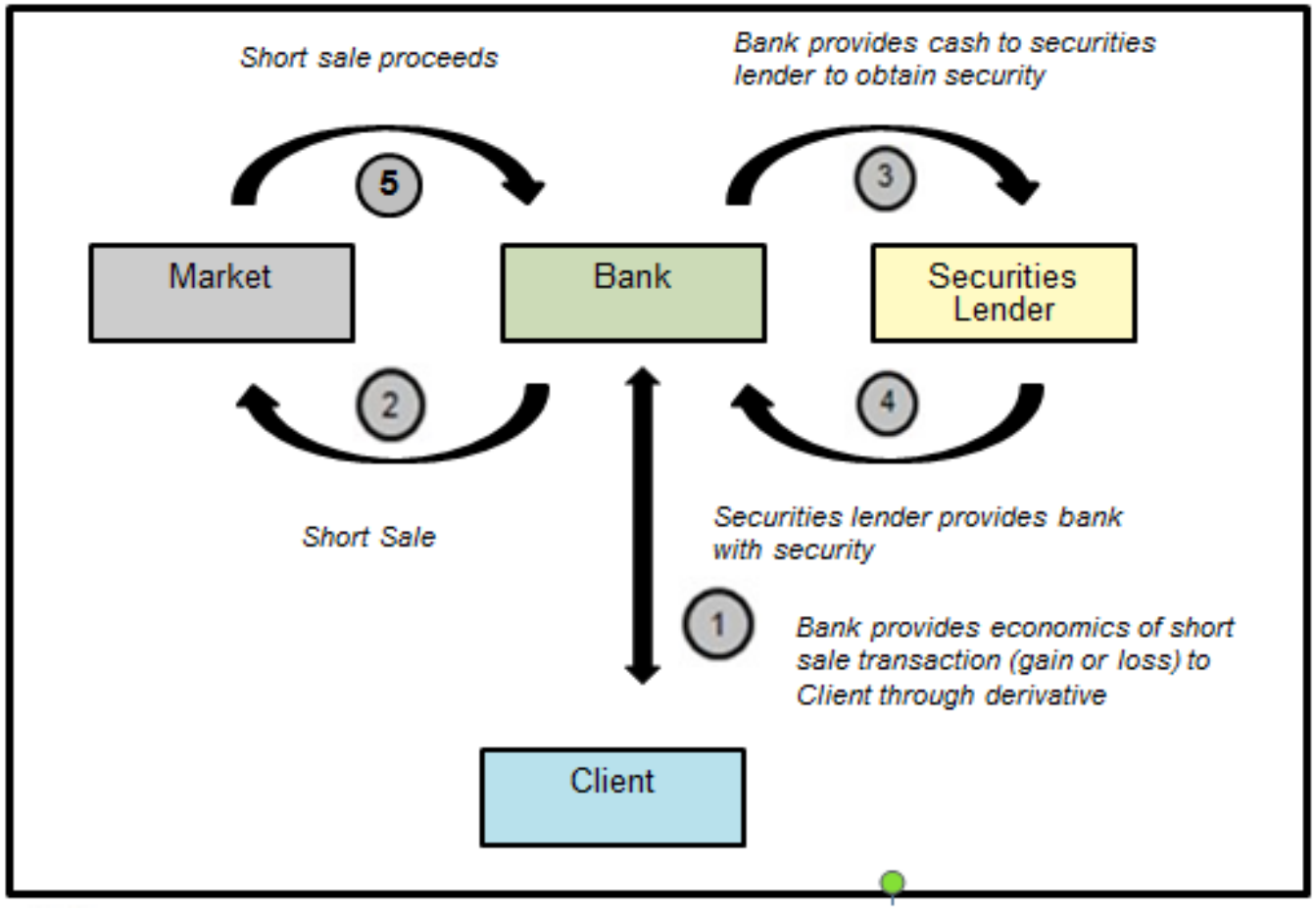
Example 1: Derivatives market risk hedges



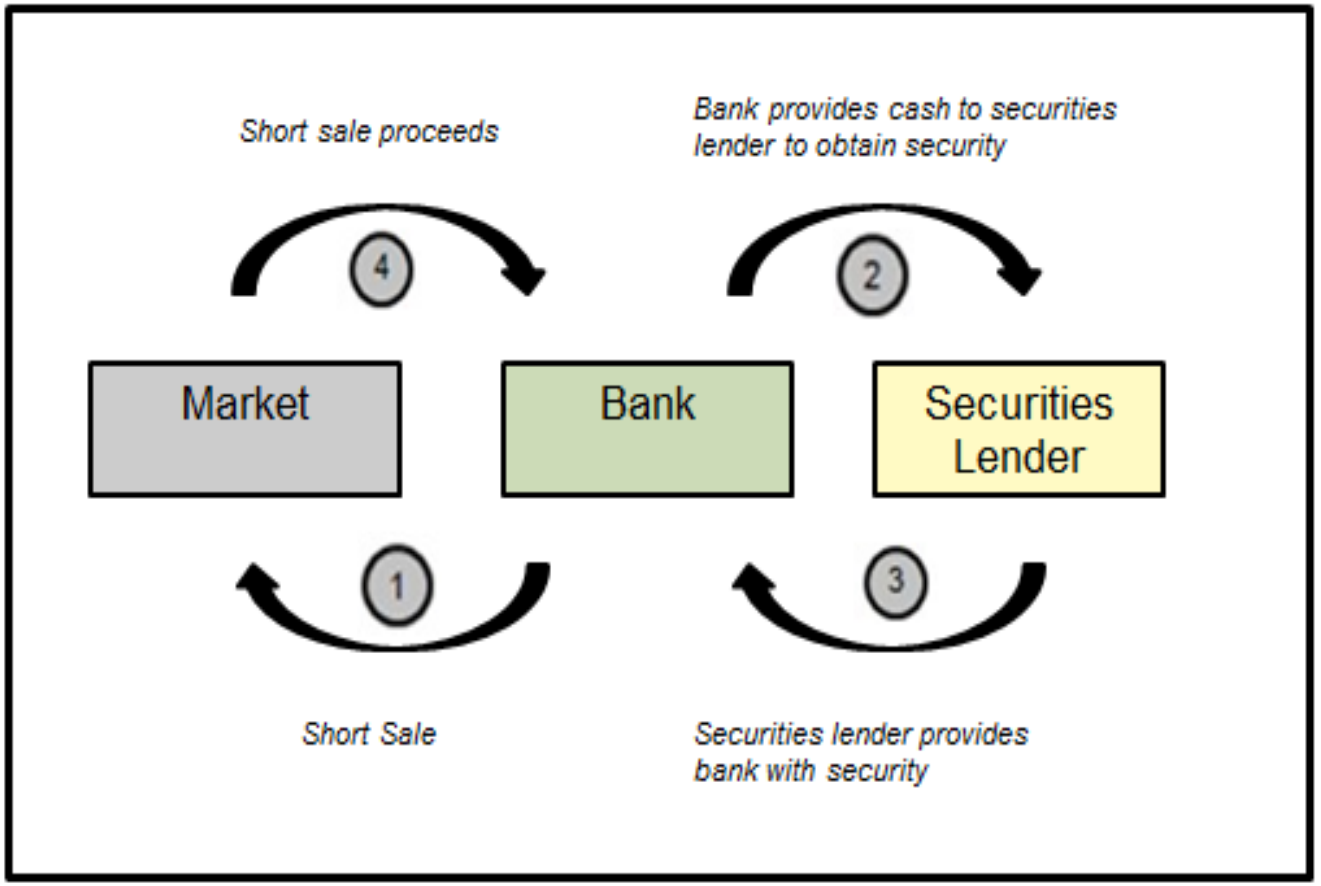
Example 2: Client short facilitation



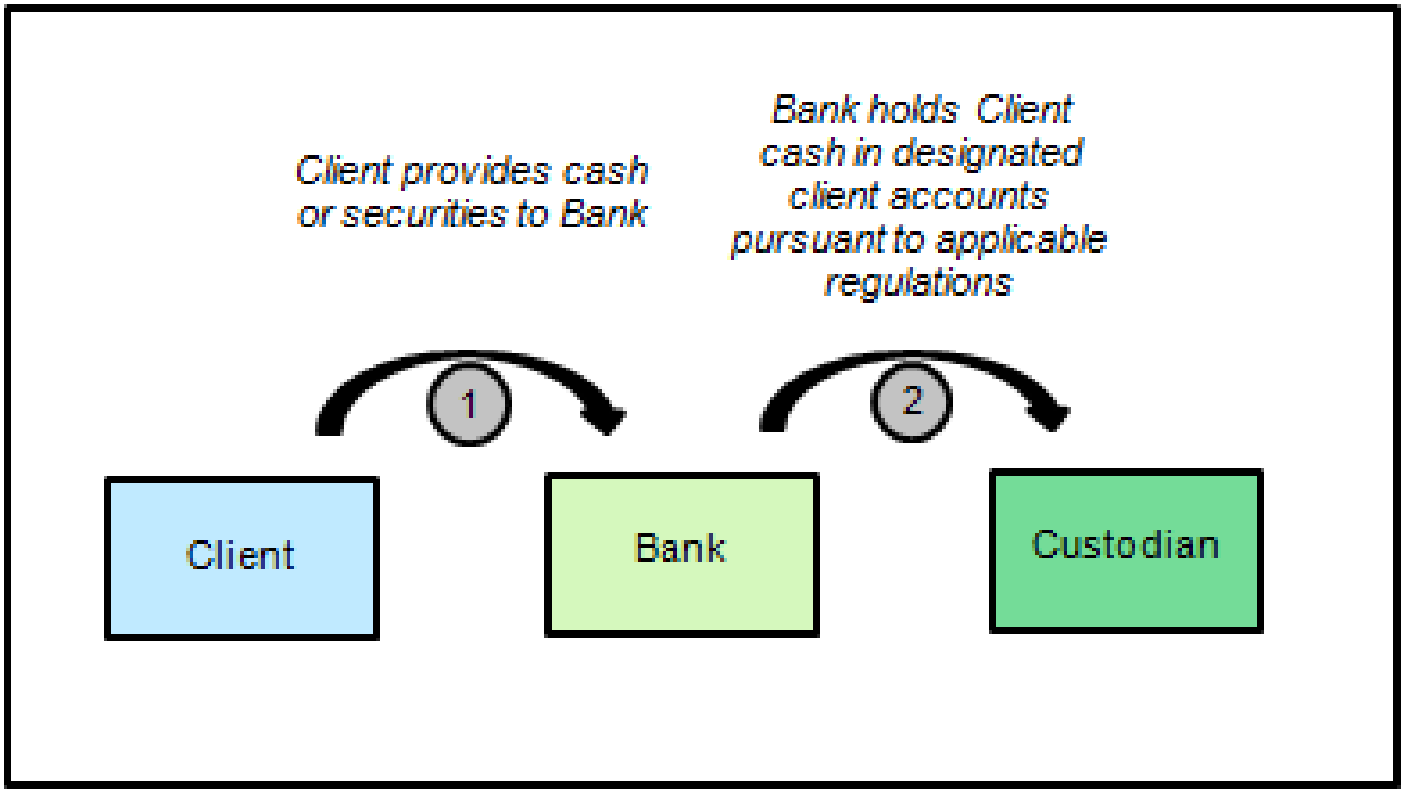
Example 3: Client short facilitation in derivative form



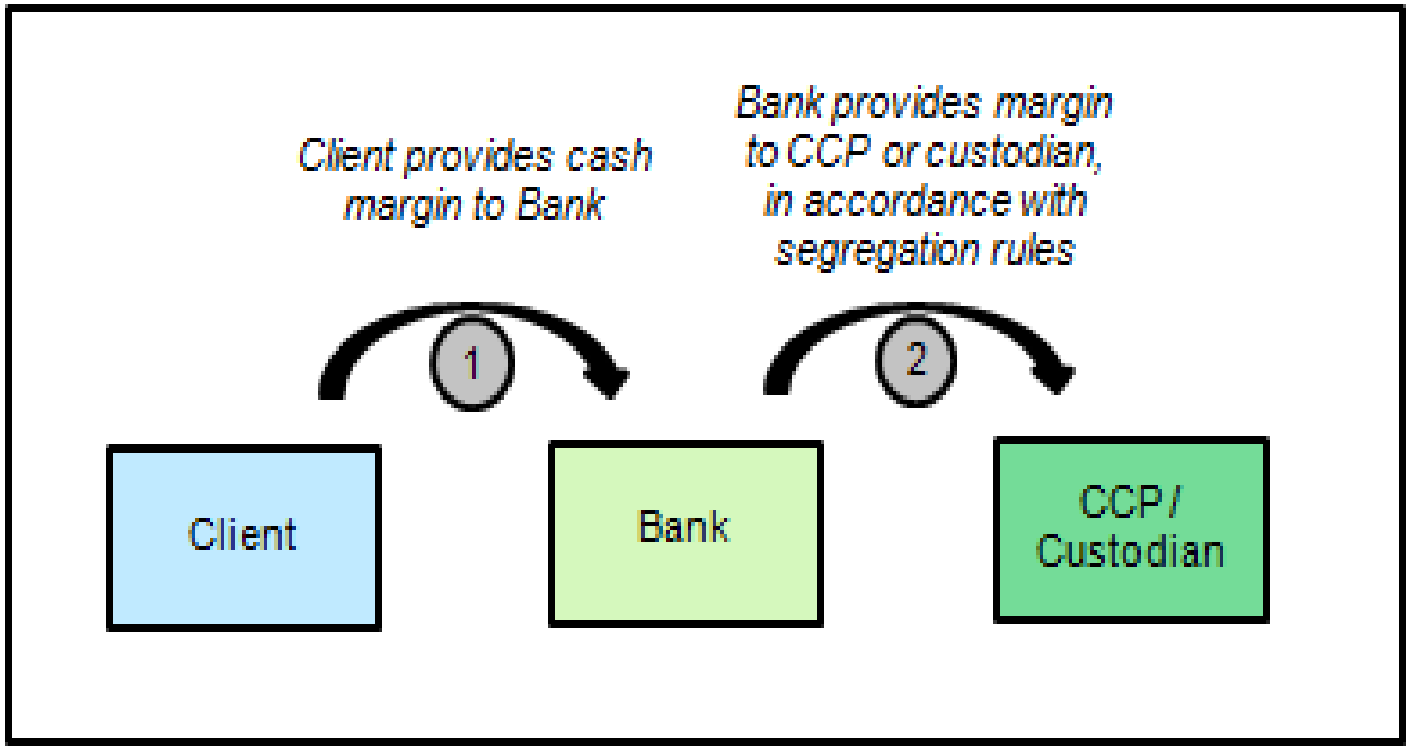
Example 4: Firm shorts



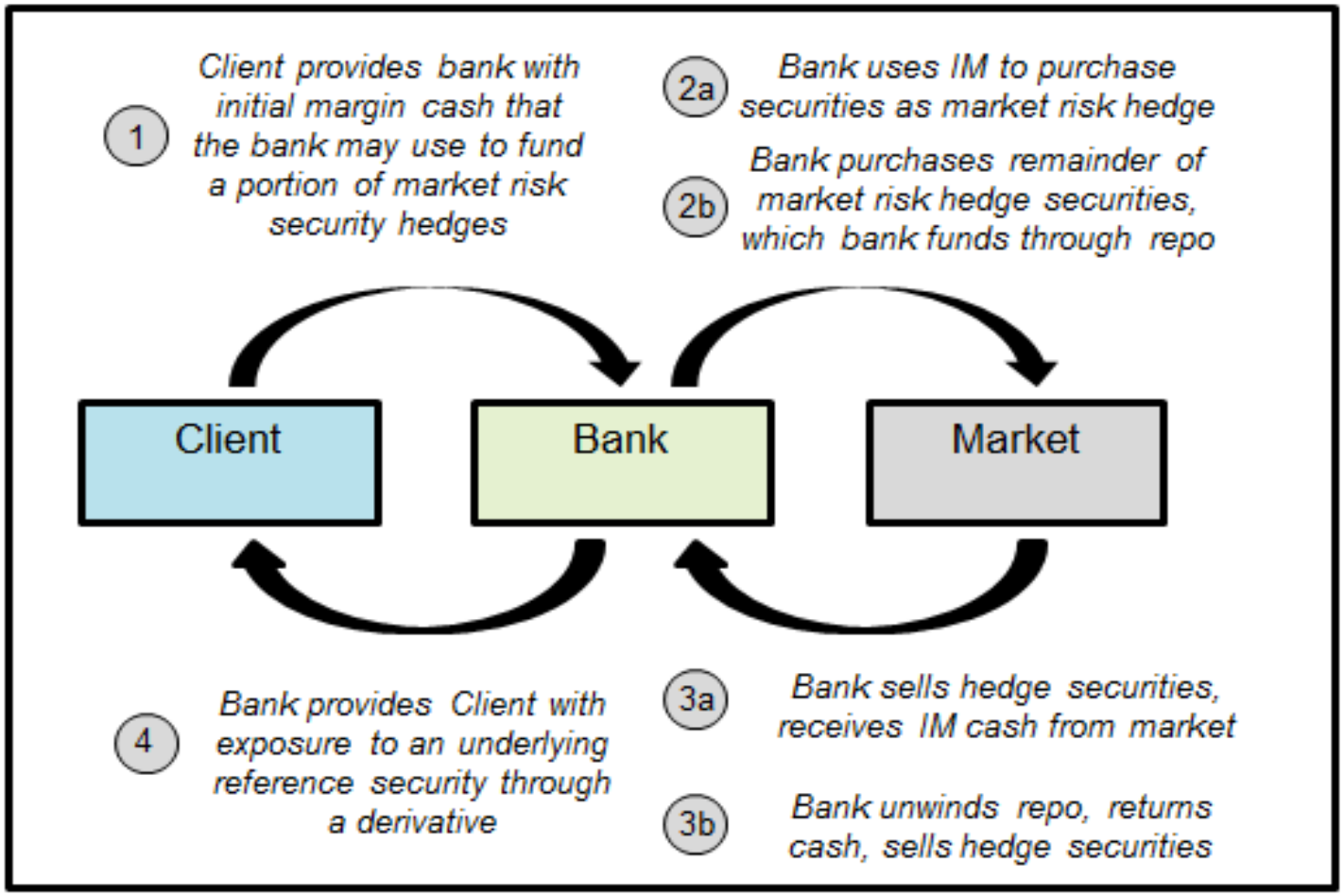
Example 5: Segregated client assets



Example 6: Client clearing transactions



Additional example: Partially repo-funded hedges



NSFR – Interdependent assets and liabilities accounting examples

No.	Transaction category	Interdependent Asset	Interdependent Liability	Pages
(i)	Derivatives market risk hedges	Trading asset (hedge security)	Payable to client for value of initial margin	[2-4]
(ii)	Client short facilitation	Securities borrow transaction (cash collateral)	Payable to client for value of short sale proceeds	[5-6]
(iii)	Client short facilitation in derivative form	Securities borrow transaction (cash collateral)	Trading liability	[7-9]
(iv)	Firm short	Securities borrow transaction (cash collateral)	Trading liability	[10-11]
(v)	Segregated client assets	Segregated assets	Customer payable	[12-13]
(vi)	Client clearing transactions	Clearing organization receivable / segregated assets	Customer payable	[14-15]

Appendix A: Additional accounting examples for transactions (i)-(iv) reflecting other possible changes in the market value of assets.

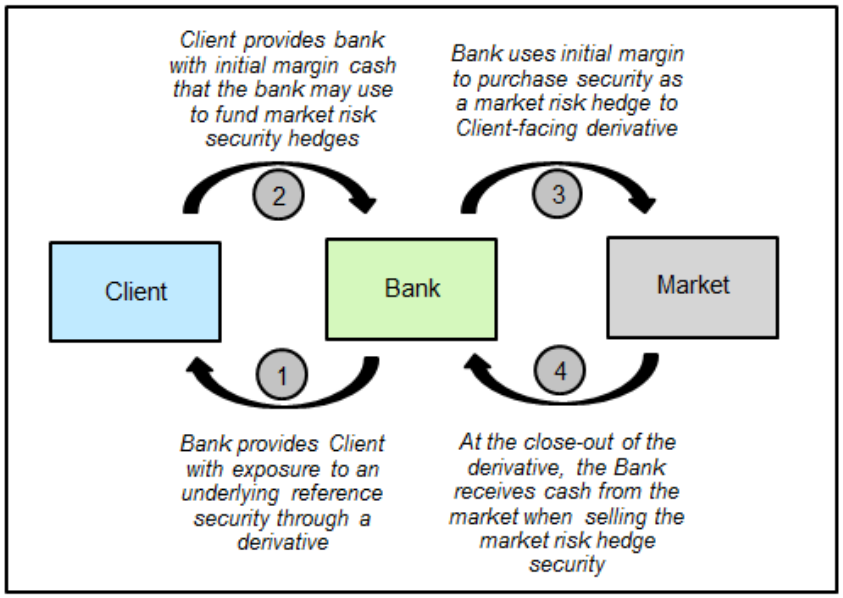
Appendix B: Accounting example for derivatives market risk hedge partially funded by repo.

NSFR _.[10]. Interdependent assets and liabilities

(d) Interdependent Transactions

(1) Interdependent Transactions include the following transactions:

(i) Derivatives Market Risk Hedges



DAY 1:

- **Step 1:** Bank enters into a total return swap derivative transaction with client. In this transaction, the Bank will pass on the economics of the referenced equities. Derivative notional is $100,000. Derivative is at market with a fair value ("FV") of zero, resulting in no balance sheet Day 1.

- **Steps 2 - 3:** Client provides initial margin in the form of cash to the Bank to collateralize the derivative, equal to $100,000. Bank records a payable representing the obligation to return the cash to the client.[1] The Bank then uses cash provided by client to buy and hold the equities as an economic hedge against the swap. The equities purchased equal the notional amount of the derivative.[2] The net impact is:

Dr. Trading assets (security)	100,000	
Cr. Customer and other payables		100,000

➢ The Interdependent Transactions are the **trading asset (security)** and the **customer payable**. The total return swap is not included in the Interdependent Transactions. The Bank will

[1] Please note that an entity may determine that the cash received should be accounted for as a borrowing with no separate accounting for the derivative (and if an entity elects the fair value option, the borrow would fluctuate in value as the securities changed in value). The interdependent relationship would then exist between the trading asset (security) and the borrowing.

[2] For purposes of this example, we are assuming no intra-day price movements and cash legs are excluded from the journal entries.

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account for the trading asset (security) at fair value and the customer payable under accrual accounting. Day 1, the amounts are $100,000.

- When the derivative matures, the Bank will sell the trading assets (security) it holds, and return the initial margin, thus the maturity of the two Interdependent Transactions are considered to be the same.

DAY 2:

- Equities increase in value by $5,000 (the change in fair value is known as the "MTM").

Dr. Trading assets (security)	5,000	
Cr. Trading revenues		5,000

- Due to the nature of the derivative transaction, the Bank will pass the MTM gain through to the client and thus must record a derivative liability. The change in the FV of this derivative liability is reflected in the same line item as other trading assets/liabilities. The amount of initial margin posted by the client remains unchanged since it is based on the notional, not the FV, of the derivative.[3]

Dr. Trading revenues	5,000	
Cr. Trading liabilities (derivative)		5,000

- On Day 2, the securities are worth $105,000 and the customer payable is still $100,000. For purposes of the NSFR paragraph 45 criteria, the matching amount is $100,000 and only that amount may be removed from consideration in the numerator and denominator. Therefore, an RSF will be calculated on the $5,000 of remaining security value.

AT MATURITY: Assume no further change in FV. When the derivative matures, the following actions take place:

- **Step 4:** Bank (1) settles its derivative obligation with the client; (2) sells the securities in the market place since hedge is no longer needed; and (3) returns the initial margin to the client and relieves its obligation. The net impact of this is:

Dr. Customer and other payables	100,000	
Dr. Trading liabilities (derivative)	5,000	
Cr. Trading assets (security)		105,000

	Trading Assets (security)		
Steps 2-3	100,000	105,000	Step 4
Day 2	5,000		
	105,000	**105,000**	

	Customer and Other Payables		
Step 4	100,000	100,000	Steps 2-3
	100,000	**100,000**	

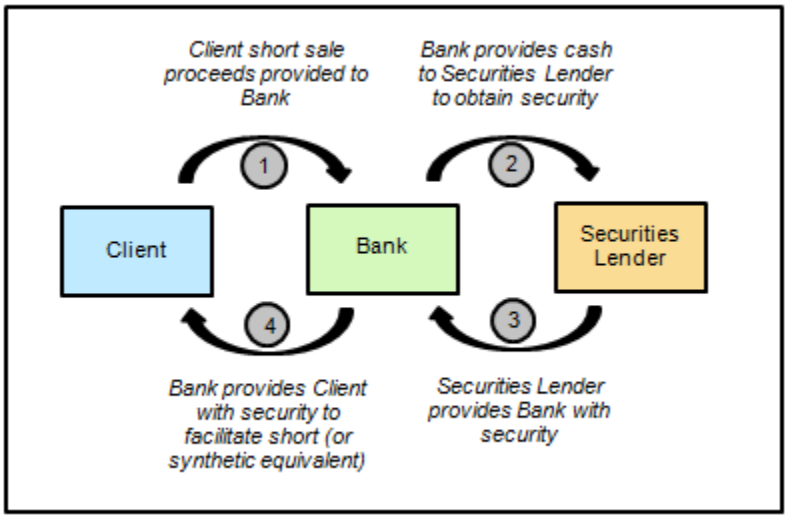
[3] For purposes of this example, we are not reflecting the accounting for variation margin.

	Trading Revenues		
Day 2	5,000	5,000	Day 2
	5,000	**5,000**	

	Trading Liabilities (derivative)		
Step 4	5,000	5,000	Day 2
	5,000	**5,000**	

See **Appendix A Example (i)** for journal entries related to Day 2 and At Maturity where the equities have decreased in value by $5,000. Also, see **Appendix B** for an alternative scenario where the client provides initial margin less than the full amount of the derivative notional and Bank obtains the remaining funding for its market risk hedge through a repurchase agreement.

(ii) Client Short Facilitation



Note: *Market haircuts on securities borrowed transactions start from 0% and increase accordingly (e.g., range from 0% – 5%). When haircuts create a difference between the Interdependent Transaction amounts, the appropriate ASF/RSF is calculated on the difference. For the purpose of this example, haircuts are not shown.*

DAY 1:

- Client enters into a short sale with the market (not on Bank's books) under a prime brokerage arrangement whereby the Bank will borrow securities to cover the client's short.

- **Steps 1 - 3:** These steps are accomplished in one delivery versus payment / receipt versus payment transaction. Client's short sale proceeds are received in its prime brokerage account. Bank must record a payable representing the obligation to return the cash to the client. Bank then enters into a securities borrowed transaction using the client's proceeds from the short sale to obtain the securities to cover the client's short. Securities are borrowed at the same price as in the short sale transaction.[4] The net impact of this is:

  Dr. Securities borrowed 100,000
  Cr. Customer and other payables 100,000

- **Step 4:** The securities are delivered to the third party to cover the short and the client must maintain margin in its account.

➢ The Interdependent Transactions are the **securities borrowed transaction** and the **customer payable**. The Bank will account for these transactions under accrual accounting (accrual of fees & rebates on the securities borrowed is not shown in the example).

[4] For purposes of this example, we are assuming no intra-day price movements.

DAY 2:

- On Day 2, the securities are worth $105,000. The Bank posts $5,000 of cash collateral to the counterparty of the securities borrowed transaction because the underlying securities have increased in value. The $5,000 is funded either through an adjustment to the client's existing cash position at the Bank or through a margin call to the client. The net impact of an adjustment to the client's cash balance is:

  Dr. Securities borrowed 5,000
  Cr. Customer and other payables 5,000

AT CLOSURE: When the short closes, the following actions take place:

- Bank recognizes the termination/close of the securities borrowed transaction and returns the cash to the client. The net impact of this is:

  Dr. Customer and other payables 105,000
  Cr. Securities borrowed 105,000

Securities Borrowed

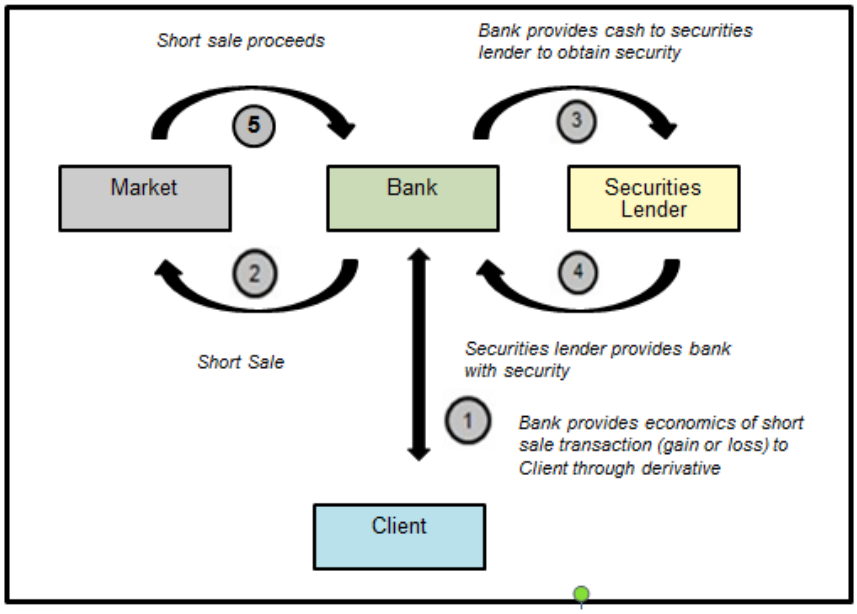
Steps 1-3	100,000	105,000	**At Closure**
Day 2	5,000		
	105,000	**105,000**	

Customer and Other Payables

At Closure	105,000	100,000	**Steps 1-3**
		5,000	**Day 2**
	105,000	**105,000**	

See **Appendix A Example (ii)** for journal entries related to Day 2 and At Closure where the securities have decreased in value by $5,000.

(iii) Client Short Facilitation in Derivative Form



Note: *Market haircuts on securities borrowed transactions start from 0% and increase accordingly (e.g., range from 0% – 5%). When haircuts create a difference between the Interdependent Transaction amounts, the appropriate ASF/RSF is calculated on the difference. For the purpose of this example, haircuts are not shown.*

DAY 1:

- **Step 1:** Client would like short exposure to equity and chose to execute synthetically. Thus, the Bank enters into a total return swap derivative transaction with client. In this transaction, the Bank will pass on the economics of the short sale transaction. Derivative is at market with a FV of zero, resulting in no balance sheet Day 1.

- **Steps 2 - 5:** These steps are accomplished in one delivery versus payment / receipt versus payment transaction. Bank enters into a short sale of securities with a different counterparty and records a liability. Bank receives cash proceeds after delivering the securities obtained in Step 4 (noted in diagram above).[5] Bank then enters into a securities borrowed transaction to obtain the securities to cover its own short. The net impact of this is:

  Dr. Securities borrowed 100,000
  Cr. Trading liabilities (short sale) 100,000

➢ The Interdependent Transactions are the **securities borrowed transaction** and **trading liability (short sale)**. Day 1, these two amounts are equal. The total return swap is not included in the Interdependent Transactions. The Bank will account for the trading liability (short sale) at fair

[5] In addition, trade date and settlement date J/Es collapsed here for illustrative purposes, although on the short trade date, cash will not be received (instead, a pending receivable will be booked). On the settlement date, the securities will be delivered to the short counterparty and the receivable will be removed when cash is received.

value and the securities borrowed transaction under accrual accounting (the accrual of fees & rebates on the securities borrowed is not shown in the example).

DAY 2:

- On Day 2, the securities are worth $105,000, which means there is a loss of $5,000 on the Bank's short.

  Dr. Trading revenues 5,000
  Cr. Trading liabilities (short sale) 5,000

- The Bank passes the loss of $5,000 on the short to the client, thus recording a derivative asset and a gain.

  Dr. Trading assets (derivative) 5,000
  Cr. Trading revenues 5,000

- Client provides variation margin of $5,000 on the derivative asset equal to the MTM, thus the Bank will record a payable for the margin received. At the same time, the Bank posts $5,000 of cash to the counterparty of the securities borrowed transaction because the underlying securities have increased in value. The net impact of this is:

  Dr. Securities borrowed 5,000
  Cr. Customer and other payables 5,000

- On Day 2, the trading liability (short sale) is $105,000 and the securities borrowed transaction is $105,000.

AT CLOSURE: Assume no change in FV since Day 2. When the short closes, the following actions take place:

- Bank (1) purchases securities for $105,000, thus closing out its short, (2) terminates its securities borrowed transaction, and (3) settles the derivative transaction and corresponding payable with the client.[6] The net impact of this is:

  Dr. Trading liabilities (short sale) 105,000
  Dr. Customer and other payables 5,000
  Cr. Securities borrowed 105,000
  Cr. Trading assets (derivative) 5,000

[6] In addition, trade date and settlement date J/Es collapsed here for illustrative purposes, although on the securities trade date, cash will not be paid (instead, a pending payable will be booked). On the settlement date, the securities will be delivered to the Bank to close the short and the payable will be settled with cash.

Securities Borrowed			
Steps 2-5	100,000	105,000	At Closure
Day 2	5,000		
	105,000	**105,000**	

Trading Liabilities (short sale)			
At Closure	105,000	100,000	Steps 2-5
		5,000	Day 2
	105,000	**105,000**	

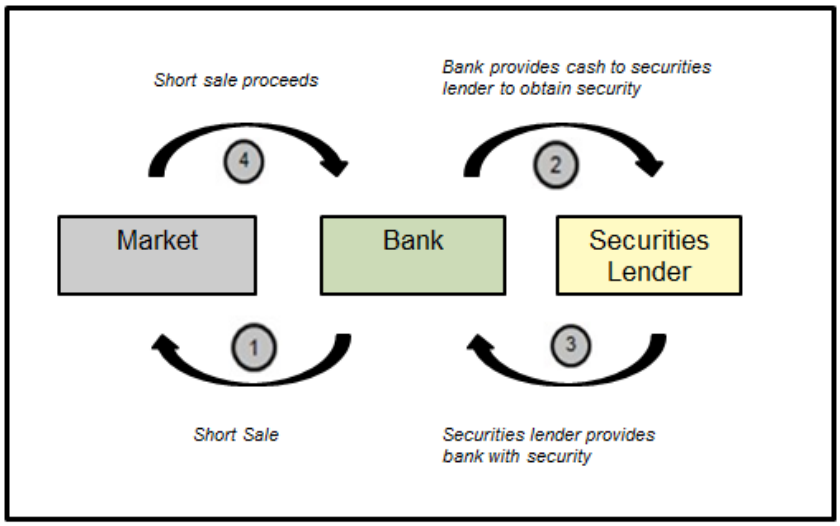
Trading Revenues			
Day 2	5,000	5,000	Day 2
	5,000	**5,000**	

Trading Assets (derivative)			
Day 2	5,000	5,000	At Closure
	5,000	**5,000**	

Customer and Other Payables			
At Closure	5,000	5,000	Day 2
	5,000	**5,000**	

See **Appendix A Example (iii)** for journal entries related to Day 2 and At Closure where the securities have decreased in value by $5,000.

(iv) Firm Short



Notes: *Market haircuts on securities borrowed transactions start from 0% and increase accordingly (e.g., range from 0% – 5%). When haircuts create a difference between the Interdependent Transaction amounts, the appropriate ASF/RSF is calculated on the difference. For the purpose of this example, haircuts are not shown.*

U.S. banking organizations do not engage in firm short transactions to take advantage of anticipated short-term changes in the value of securities. Instead, firm short transactions support risk management, by permitting banking organizations to balance their market exposure, or otherwise support client activities, such as executing a firm short transaction and then providing the gain or loss on the short to a client through a derivative, as in example (iii).

DAY 1:

- **Steps 1 - 4:** Bank enters into a short sale of securities. Bank receives cash proceeds after delivering the securities obtained in Step 3 (noted in diagram above).[7] Bank then enters into a securities borrowed transaction with a different counterparty to obtain the securities to cover its own short. The net impact of this is:

  Dr. Securities borrowed 100,000
  Cr. Trading liabilities (short sale) 100,000

➢ The Interdependent Transactions are the **securities borrowed transaction** and **trading liability (short sale)**. Day 1, these two amounts are equal. The Bank will account for the trading liability (short sale) at fair value and the securities borrowed transaction under accrual accounting (accruing only fees & rebates on the securities borrowed, not shown in the example).

DAY 2:

[7] In addition, trade date and settlement date J/Es collapsed here for illustrative purposes, although on the short trade date, cash will not be received (instead, a pending receivable will be booked). On the settlement date, the securities will be delivered to the short counterparty and the receivable will be removed when cash is received.

- On Day 2, the securities are worth $105,000, which means there is a loss of $5,000 on the Bank's short.

  Dr. Trading revenues 5,000
  Cr. Trading liabilities (short sale) 5,000

- The Bank posts $5,000 of cash to the counterparty of the securities borrowed transaction because the underlying securities have increased in value.

  Dr. Securities borrowed 5,000
  Cr. Cash and due from bank 5,000

➢ On Day 2, the trading liability (short sale) is $105,000 and the securities borrowed transaction is $105,000.

AT CLOSURE: Assume no change in FV since Day 2. When the short closes, the following actions take place:

- Bank (1) purchases securities for $105,000, thus closing out its short, and (2) terminates its securities borrowed transaction. [8]

  Dr. Trading liabilities (short sale) 105,000
  Cr. Securities borrowed 105,000

Securities Borrowed			
Steps 1-4	100,000	105,000	At Closure
Day 2	5,000		
	105,000	**105,000**	

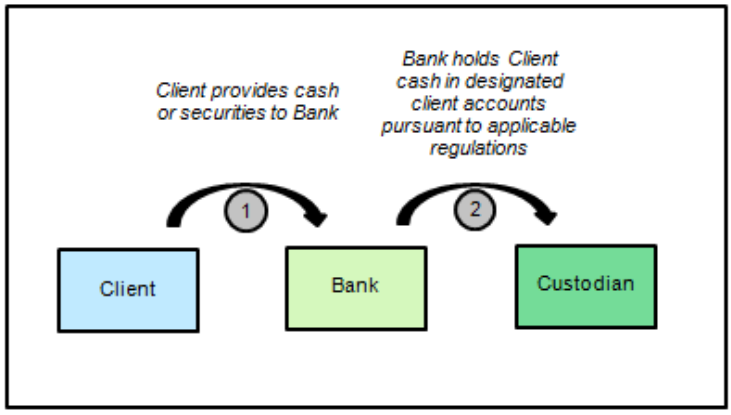
Trading Liabilities (short sale)			
At Closure	105,000	100,000	Steps 1-4
		5,000	Day 2
	105,000	**105,000**	

Trading Revenues		
Day 2	5,000	
	5,000	**-**

See **Appendix A Example (iv)** for journal entries related to Day 2 and At Closure where the securities have decreased in value by $5,000.

[8] In addition, trade date and settlement date J/Es collapsed here for illustrative purposes, although on the securities trade date, cash will not be paid (instead, a pending payable will be booked). On the settlement date, the securities will be delivered to the Bank to close the short and the payable will be settled with cash.

(v) Segregated Client Assets



DAY 1:

- **Steps 1 & 2:** Client has excess cash in their account, which is held by the Bank in a segregated account. Bank must record a payable representing the obligation to return cash to the client.

  Dr. Segregated cash[9] 100,000
  Cr. Customer and other payables 100,000

➢ The Interdependent Transactions are the **segregated assets** and the **customer payable**.[10] The Bank will account for these transactions under accrual accounting.

DAY 2:

- No accounting entry applicable.

UPON CLIENT REQUEST:

- When the cash is returned to the client, the Bank closes its obligation to the client:

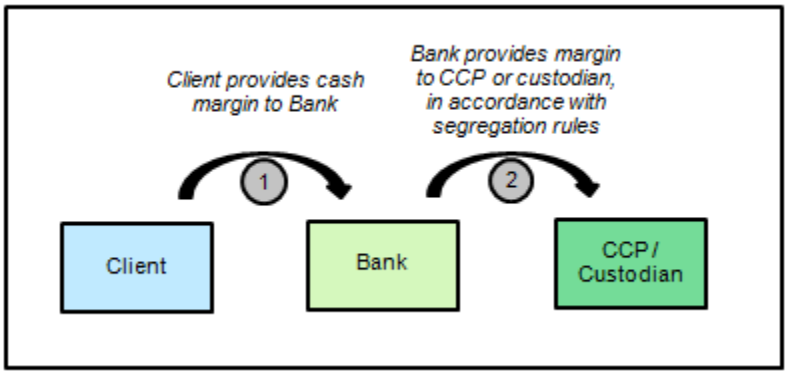
  Dr. Customer and other payables 100,000
  Cr. Segregated cash[9] 100,000

[9] Full account name is "cash deposited with clearing organizations or segregated under federal and other regulations or requirements."
[10] These Interdependent Transactions would exist whether the Bank holds segregated client assets in its capacity as a broker-dealer or futures commission merchant.

	Segregated Cash		
Steps 1-2	100,000	100,000	Upon Client Request
	100,000	**100,000**	

	Customer and Other Payables		
Upon Client Request	100,000	100,000	Steps 1-2
	100,000	**100,000**	

(vi) Client Clearing Transactions



***Note**: Footnote 18 in the Basel NSFR text provides that "initial margin posted on behalf of a customer, where the bank does not guarantee performance of the third party, would be exempt from this requirement," referring to the 85% RSF applicable to initial margin posted by a bank to a CCP. Even if initial margin posted by a clearing member bank to a CCP received a 0% RSF, we believe that the broader client clearing relationship involves interdependent assets and liabilities, including (i) excess margin collected by the clearing member bank from its clients, but not posted to the CCP, which helps to mitigate the bank's credit risk to the client, and (ii) client assets reinvested in permissible asset classes, such as money market funds, to the extent these reinvested assets are included in the bank's balance sheet.*

DAY 1:

- Client provides bank with cash (initial margin) in connection with a derivative transaction that the client intends to have cleared with a central counterparty. Bank records a payable representing the obligation to return the cash to the client. The Bank deposits cash with the central counterparty ("CCP") corresponding to the assets received from the client. Bank records a receivable representing its right to receive the cash from the CCP. The net impact of this is:

Dr. Segregated cash[9]	100,000	
Cr. Customer and other payables		100,000

- The Bank acts in a regulated capacity to facilitate the clearing of its client's cleared transaction with a central counterparty. The Bank also does not guarantee the performance of the central counterparty and has no payment obligation to the client in the event of a central counterparty default. Bank concludes it is acting as agent for the derivative trades, so no accounting for derivative with client or with the central counterparty.

[9] Full account name is "cash deposited with clearing organizations or segregated under federal and other regulations or requirements."

- The Interdependent Transactions are the **customer payable** and **segregated assets**.[11] The Bank will account for these transactions under accrual accounting.

DAY 2:

- No accounting entry because no MTM. Assume no changes to initial margin requirements.
- If the client's cleared transaction changes in value, the bank will require the client to post variation margin covering the mark-to-market difference. As a result, any temporary change in the value of the bank's derivative asset will always be fully collateralized after the margin call is met, resulting in no net change to the bank's balance sheet position.

UPON CLIENT REQUEST: The following actions take place:

- Bank receives cash collateral from CCP and returns the cash collateral to the client. The net impact of this is:

Dr. Customer and other payables 100,000
Cr. Segregated cash[9] 100,000

	Segregated Cash				Customer and Other Payables		
Day 1	100,000	100,000	Upon Client Request	Upon Client Request	100,000	100,000	Day 1
	100,000	**100,000**			**100,000**	**100,000**	

[9] Full account name is "cash deposited with clearing organizations or segregated under federal and other regulations or requirements."
[11] When the bank posts initial margin to the CCP on behalf of a client's cleared transaction, the interdependent asset will be the clearing organization receivable. The asset identified for accounting purposes may vary, however, depending on how the client's initial margin is utilized. Excess collateral collected by the bank and not posted to the CCP will typically be reflected in accounting statements as segregated cash; in other cases, the bank may reinvest client initial margin in the form of cash into permitted asset classes, which could impact the classification of the asset in the accounting statements, e.g., an investment in US Treasuries may instead be reflected as trading assets.

APPENDIX A

See below for journal entries related to Day 2 and At Maturity/Closure where the equities/securities have decreased in value by $5,000.

Example (i) Derivatives Market Risk Hedges

DAY 2:

- Equities decrease in value by $5,000.

Dr. Trading revenues	5,000	
Cr. Trading assets (security)		5,000

- Bank passes the MTM loss of $5,000 through to the client and thus must record a derivative asset.

Dr. Trading assets (derivative)	5,000	
Cr. Trading revenues		5,000

AT MATURITY:

- Assume no further change in FV. Bank (1) settles its derivative transaction; (2) sells the securities in the market place; and (3) returns the initial margin. The net impact of this is:

Dr. Customer and other payables	100,000	
Cr. Trading assets (security)		95,000
Cr. Trading assets (derivative)		5,000

Example (ii) Client Short Facilitation

DAY 2:

- Securities are worth $95,000. The counterparty to the securities borrowed transaction returns $5,000 of cash collateral to the Bank as a result and the Bank returns $5,000 to the client. The net impact of this is:

Dr. Customer and other payables	5,000	
Cr. Securities borrowed		5,000

AT CLOSURE:

- Assume no further change in FV. Bank terminates/closes the securities borrowed transaction and returns the cash to the client. The net impact of this is:

Dr. Customer and other payables	95,000	
Cr. Securities borrowed		95,000

Example (iii) Client Short Facilitation in Derivative Form

DAY 2:

- Securities are worth $95,000, which means there is a gain of $5,000 on the Bank's short.

Dr. Trading liabilities (short sale)	5,000	
Cr. Trading revenues		5,000

- The Bank passes the gain of $5,000 on the short to the client, thus recording a derivative liability and a loss.

Dr. Trading revenues	5,000	
Cr. Trading liabilities (derivative)		5,000

- The counterparty to the securities borrowed transaction returns $5,000 of cash to the Bank and the Bank provides variation margin of $5,000 on the derivative liability to the client, thus recording a receivable. The net impact of this is:

Dr. Customer and other receivables	5,000	
Cr. Securities borrowed		5,000

AT CLOSURE:

- Assume no further change in FV. Bank (1) purchases securities for $95,000, closing its short, (2) terminates its securities borrowed transaction, and (3) settles the derivative transaction and corresponding receivable with the client. The net impact of this is:

Dr. Trading liabilities (short sale)	95,000	
Dr. Trading liabilities (derivative)	5,000	
Cr. Securities borrowed		95,000
Cr. Customer and other receivables		5,000

Example (iv) Firm Short Facilitation

DAY 2:

- Securities are worth $95,000, which means there is a gain of $5,000 on the Bank's short.

Dr. Trading liabilities (short sale)	5,000	
Cr. Trading revenues		5,000

- The counterparty of the securities borrowed transaction returns $5,000 of cash to the Bank because the underlying securities have decreased in value.

Dr. Cash and due from bank	5,000	
Cr. Securities borrowed		5,000

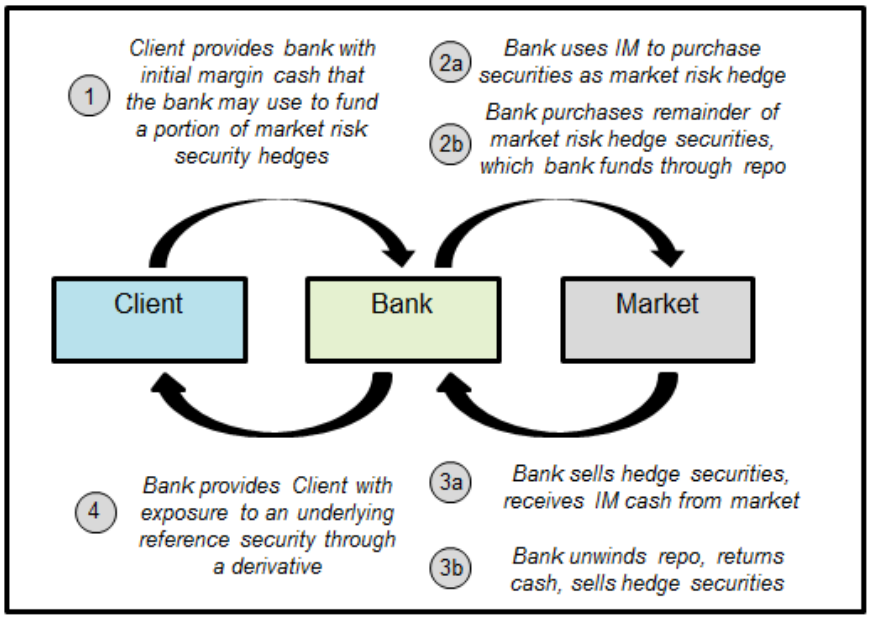
AT CLOSURE:

- Assume no further change in FV. Bank (1) purchases securities for $95,000, closing its short, and (2) terminates its securities borrowed transaction.

Dr. Trading liabilities (short sale)	95,000	
Cr. Securities borrowed		95,000

APPENDIX B

Derivatives Market Risk Hedges (partially repo-funded)



Alternative Scenario: Client provides initial margin less than the full amount of the derivative notional and Bank obtains the remaining funding for its market risk hedge through a repurchase agreement.

The journal entries below are based on an assumption that both the initial margin-funded and repo-funded portions of the transactions would qualify for Paragraph 45 treatment in the NSFR.

DAY 1:

- **Step 1:** Bank enters into a total return swap derivative transaction with client. In this transaction, the Bank will pass on the economics of the referenced equities. Derivative notional is $100,000. Derivative is at market with a fair value ("FV") of zero, resulting in no balance sheet Day 1.

- **Steps 2 - 3:** Client provides initial margin in the form of cash to the Bank to collateralize the derivative, equal to $20,000. Bank records a payable representing the obligation to return the cash to the client. Bank enters into a repurchase agreement to obtain the remaining $80,000 in order to purchase the securities and posts securities as collateral. It uses cash provided by client in Step 2 plus the repo cash to buy and hold the equities as an economic hedge against the swap. The equities purchased equal the notional amount of the derivative.[1] The net impact of this is:

Dr. Trading assets (security)	100,000	
Cr. Customer and other payables		20,000
Cr. Securities sold under agreement to repurchase[12]		80,000

[1] For purposes of this example, we are assuming no intra-day price movements.
[12] Referred to as a "repo"

- There are two sets of Interdependent Transactions in this scenario. One set is the **trading asset (security)** and the **initial margin payable** up to the amount of the initial margin payable, i.e., $20,000. The other set is the **trading asset (security)** and the **repo** up to the amount of the repo, i.e., $80,000. The equity swap is not included in the Interdependent Transactions. The Bank will account for the trading asset at fair value and the customer payable and repo under accrual accounting. Day 1, the amounts are equal for each set of Interdependent Transactions.

DAY 2:

- Equities increase in value by $5,000.

Dr. Trading assets (security)	5,000	
Cr. Trading revenues		5,000

- Due to the nature of the derivative transaction, the Bank will pass the MTM gain through to the client and thus must record a derivative liability. The amount of initial margin posted by the client remains unchanged since it is based on the notional, not the FV, of the derivative.

Dr. Trading revenues	5,000	
Cr. Trading liabilities (derivative)		5,000

- If the repo collateral increases in value, the counterparty will return the amount of the increase to the Bank. If the repo collateral decreases in value, the Bank will post additional collateral. Unless the collateral is in the form of cash, which is not typical for repo transactions, there is no balance sheet entry.

- On Day 2, the securities are worth $105,000, the customer payable is $20,000 and the repo is $80,000. For purposes of the NSFR paragraph 45 criteria, the matching amounts are $20,000 and $80,000, respectively and only that amount may be removed from consideration in the numerator and denominator. Therefore, an RSF will be calculated on the $5,000 of remaining security value.

AT MATURITY: Assume no further change in FV. When the derivative matures, the following actions take place:

- **Step 4:** Bank (1) settles its derivative obligation with the client; (2) sells the securities in the market place since hedge is no longer needed; (3) returns the initial margin to the client and relieves its obligation; and (4) terminates its repo transaction. The net impact of this is:

Dr. Trading liabilities (derivative)	5,000	
Dr. Customer and other payables	20,000	
Dr. Securities sold under agreement to repurchase	80,000	
Cr. Trading assets (security)		105,000

Net Stable Funding Ratio

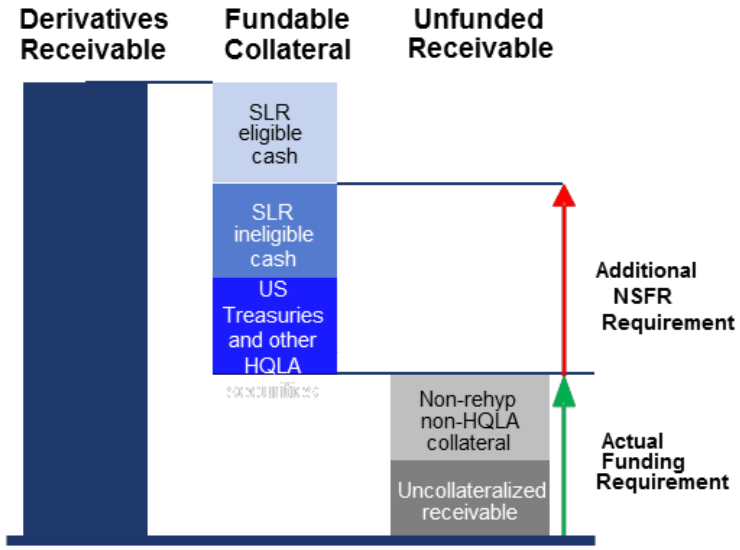
Derivatives

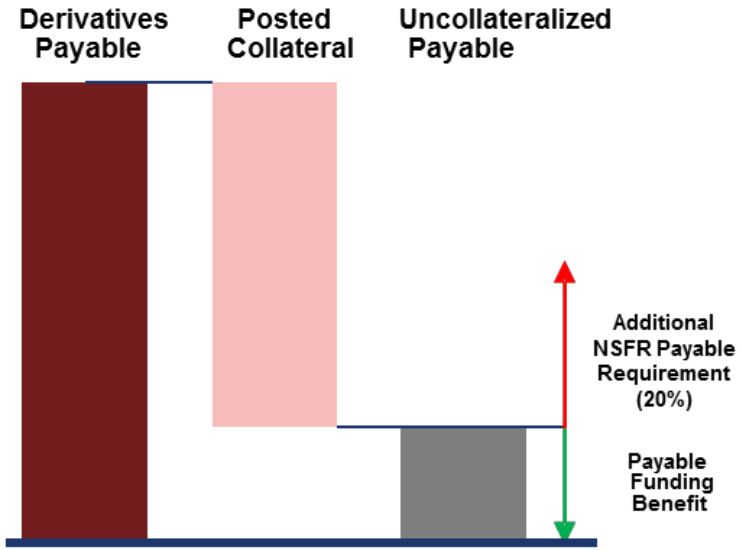
- The October 2014 Basel NSFR Framework adopted a new derivatives methodology that had not been previously considered in consultative documents, focusing on three elements:
  - 100% RSF applied to derivative assets, calculated under netting principles that disqualify much variation margin received;
  - 100% RSF applied to 20% of derivatives liabilities; and
  - 85% RSF applied to initial margin posted in connection with derivatives.
- Some features of this approach have raised concerns:
  - Application of Basel leverage ratio (LR) netting principles to variation margin received, which has the effect of disqualifying all non-cash variation margin as well as cash variation margin that does not meet the prescriptive standards of the leverage ratio;
  - The 20% derivatives liabilities appears to be a new incremental funding requirement beyond the current balance sheet exposure; it would be helpful to understand the rationale for this requirement and and ensure that the calibration is appropriate; and
  - Banks receive no credit for initial margin received from counterparties, even when such collateral can be re-used to meet initial margin posting requirements, resulting in a distorted presentation of initial margin funding sources and requirements.
- We believe that it is worth considering whether technical refinements could be made to the NSFR to better capture derivatives funding sources and requirements without departing in large ways from the October 2014 framework.
- This document contains discussion ideas for potential improvements in the NSFR derivatives methodology.

Net Stable Funding Ratio

Derivatives - Overview of Basel III Treatment

Item	Basel Framework	Considerations	Proposal
Net Derivative Receivable / Payable	■ 100% RSF for net receivable (net of payables) — NSFR Derivative Asset = Derivative Asset – Cash Collateral VM that meets Basel III leverage ratio netting criteria (LR) ■ Net Payable can offset receivable RSF after accounting for all posted VM — NSFR Payable Liability = Derivative Liability – (Total VM collateral posted) ■ 0% ASF for payable amount above receivable	■ LR cash netting creates RSF volatility and is not related to funding ■ NSFR ignores funding value of high quality securities collateral ■ Potentially negative impact for asset liquidity, due to exclusion of high quality securities collateral received	1. Recognize all rehyp cash collateral 2. Recognize rehyp HQLA securities collateral where collateral meets regulatory margin standards
20% Gross Payable RSF	■ 20% RSF on total payable post counterparty netting gross of variation margin posted	■ Payable add-on (20%) does not incentivize managing derivatives volatility and does not appropriately capture funding risk	3. Apply 20% factor only as a floor
Initial margin	■ 85% RSF for initial margin posted ■ No consideration of rehyp IM held	■ Rehypothecatable initial margin held can be used to meet initial margin positing requirements	4. Allow to offset rehyp IM held from IM posted, before applying the 85% RSF





Net Stable Funding Ratio

Derivatives – Leverage Ratio Cash Netting Creates RSF Volatility and Is Unrelated to Funding

Proposal (1): Recognize all re-hypothecatable cash collateral received

- NSFR does not recognize a large portion of cash collateral, since NSFR only allows cash that meets the Basel III Leverage Ratio (LR) netting criteria
- LR is not the right metric for determining funding value as per table below. For example, considerations of the actual capability to re-hypothecate collateral are ignored in LR. Basel margin rules, by contrast, generally recognize any cash collateral received as exposure-reducing
- The LR criteria, if applied in NSFR, should be tailored appropriately. LR netting criteria disallows collateral as soon as an agreement exhibits a minimal amount of under-collateralization which introduces significant volatility into the NSFR metric that is not related to funding risk:
  - While it may be appropriate to not give credit for collateral that has not been received due to settlement timing or a dispute, it is problematic that NSFR ignores the entire remaining cash balance received from the same counterparty, e.g. a one dollar collateral shortfall could invalidate 3bn of cash collateral that the bank uses to fund the receivable (see example)
  - This "all or nothing" criteria ignores the real funding value of cash collateral received from a counterparty[1]
  - Additionally, this will drive huge day over day swings in the derivatives NSFR requirement and does not reflect true funding value
- The under-collateralization criteria as currently applied is not appropriate for the Leverage Ratio or NSFR calculation; however, the impact is more problematic for the NSFR, where it has a larger relative impact due to the funding value of cash collateral received

LR cash collateral netting criteria vs. funding value of collateral

Criteria	Required for LR eligibility	Req. for Funding
Not under-collateralized	✓	×
Cash Only	✓	×
Enforceable MNA and collateral	✓	×
Daily Margining	✓	×
Marg. and settlement ccy the same	✓	×
Non-segregated	✓	✓
Operational capability to rehyp	×	✓
Contractual right to rehyp	×	✓

Example – Large derivatives portfolio with zero threshold CSA

	T	T+2	DoD variance
Derivative NPV	$3,000mm	$3,000mm	-
Cash Collateral	$2,999mm	$3,000mm	$1mm
Actual funding req.	$(1)mm	-	$1mm
SLR eligible collateral	-	$3,000mm	$3,000mm
NSFR RSF	**$3,000mm**	**-**	**$(3,000)mm**

[1] *Extract from BCBS 270 , Art 25*
"Variation margin exchanged is the full amount that would be necessary to fully extinguish the mark-to-market exposure of the derivative subject to the threshold and minimum transfer amounts applicable to the counterparty."

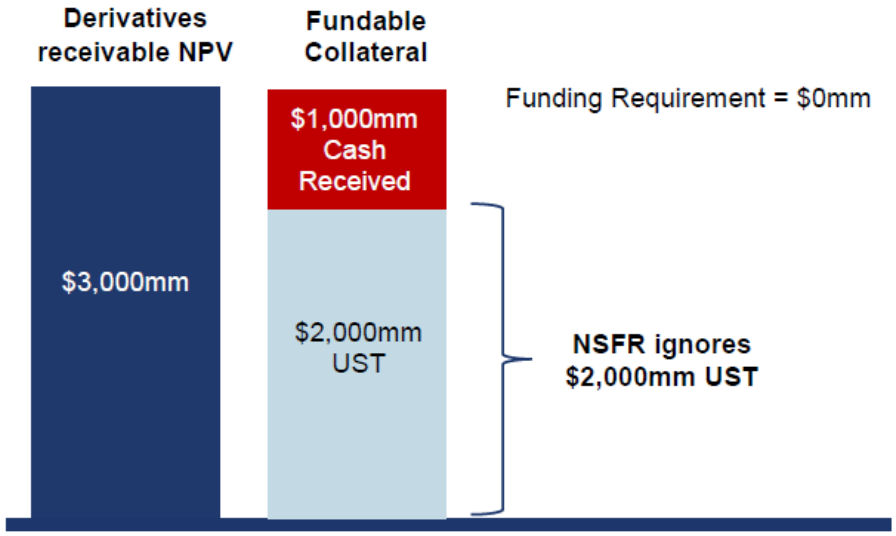
Net Stable Funding Ratio

Derivatives - NSFR Ignores Funding Value of High Quality Securities Collateral Held

Proposal (2): Recognize rehyp HQLA securities collateral where collateral meets regulatory margin standards

- NSFR limits fundable collateral to cash collateral that is nettable under the Basel III leverage ratio calculation (LR)
- As a result, the NSFR disregards high quality collateral received by a bank to reduce its derivative receivables, even when the securities received have cash-like liquidity characteristics (e.g., USTs). This treatment is not in line with the principles of Paragraph 14, which states that asset quality and liquidity value were taken into consideration in determining the appropriate amount of required stable funded for assets
  - For example, Treasuries, which are treated as cash equivalents for LCR purposes, are treated as if they were illiquid assets with no funding value:

Example 1 – Zero threshold CSA



- In contrast, derivatives payable NSFR calculation recognizes that variation margin posted to a derivative liability is a funding drain for both securities and cash collateral
- We believe that the NSFR should give ASF funding credit for high-quality collateral that can be used as a funding source, particularly Level 1 assets, with appropriate haircuts (that are already referenced in the NSFR for those asset types) applied to non-cash collateral when calculating ASF

Net Stable Funding Ratio

Derivatives - NSFR Ignores Funding Value of High Quality Securities Collateral Held

Example: Leverage Ratio netting introduces different RSF requirements for similar risks

- A firm's funding requirement on a derivatives receivable will vary significantly depending on the type of collateral received and collateral management strategy used

Example 2 – Zero threshold CSA

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Derivative NPV	1,000mm	1,000mm	1,000mm	1,000mm
Collateral[1]	1,000mm USD cash	1,000mm USD cash	1,000mm USTs	1,000mm USTs
Use of Collateral	Invest in 1,000mm UST	Reverse in 1,000mm UST	Leave USTs unencumbered	Repo USTs for Cash with a financial counterparty for <6 months
Implied RSF	**5%**	**10%**	**100%**	**100%**
Balance Sheet Treatment	■ Derivative Receivable on B/S: 0 ■ UST Firm Inventory on B/S: 1,000mm	■ Derivative Receivable on B/S: 0 ■ Reverse Repurchase Agreement (with a financial counterparty) on B/S: 1,000mm	■ Derivative Receivable on B/S: 1,000mm ■ Unencumbered USTs off B/S: 1,000mm	■ Derivative Receivable on B/S: 1,000mm ■ Cash on B/S: 1,000mm ■ Repurchase agreement on B/S: 1,000mm

USTs given no funding value under Leverage Ratio netting in Scenarios 3 & 4

- It is standard collateral management practice to convert cash collateral received into securities to minimize credit risk from cash balances that would be placed at agent banks, resulting in inconsistent RSF factors for similar risk scenarios
  - — **Same Portfolio and nearly identical liquidity risk, but very different RSF**

[1] *Examples ignore collateral haircuts*

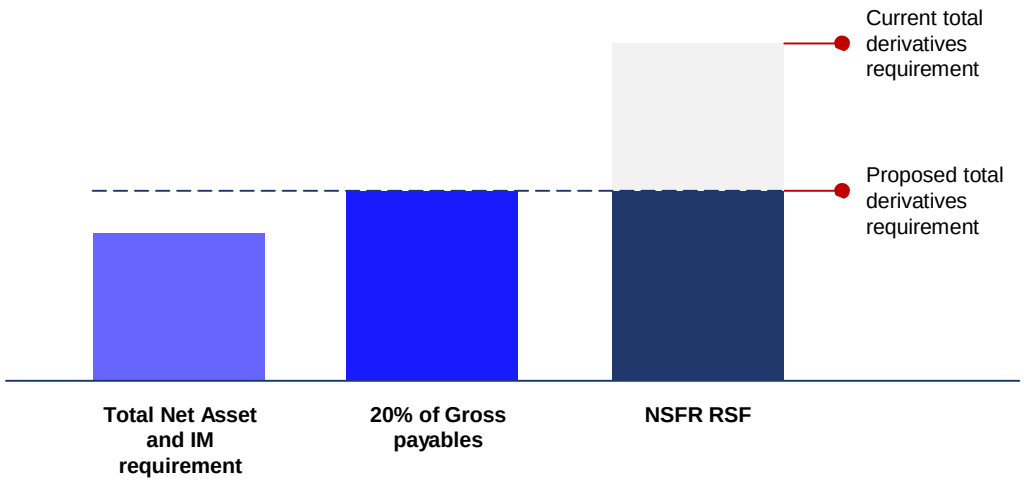
Net Stable Funding Ratio

Derivatives – Volatility add-on should be tied to collateral volatility

Proposal (3): Apply 20% factor as a floor to derivatives RSF instead of an add-on

- Paragraph 43(d) requires an additional stable funding requirement for 20% of derivative liabilities before deducting variation margin posted (i.e., 20% of gross derivative balance sheet liabilities)
- This is the only instance in the NSFR where a firm's balance sheet liability (as opposed to a firm's asset) results in a stable funding requirement
- Contingent liquidity risks related to derivatives MTM movements are already captured by the LCR and are realized through collateral outflows
- The size of a gross payable on a bank's balance sheet is not a good indicator of a firm's market contingent funding requirements as it does not take into account either: (1) the collateral a firm is required to post to secure its derivative liabilities or (2) the rehypothecatable cash and liquid securities collateral a firm receives from other counterparties to secure its derivative assets
- If the intention of the add-on is to ensure a minimum amount of RSF for derivatives, a less biased alternative approach would be to apply the requirement as a floor instead of an add-on
  - Under the floor approach the total derivatives RSF requirement would be the larger of the 20% Payable and the receivable and IM RSF requirements

Example



Net Stable Funding Ratio

Derivatives - NSFR Ignores the Funding Value of Rehyp Initial Margin Held

Proposal (4): Allow rehyp IM held to offset IM posted

- NSFR currently prescribes a 85% funding requirement for IM posted but does not assign any funding value to IM received
- Initial Margin held by a covered company where it has contractual and operational capability to monetize the collateral (rehypothecation) creates funding value for the covered company
  - Initial Margin is contractually linked to the derivative and available for use by the covered company for the duration of the derivative contract
  - In many cases IM held and posted are related to the same risk positions and are tenor matched, but are not necessarily part of a "linked transaction"
- The introduction of Basel IOSCO Margining rules is expected to result in structural changes to size, tenor, and composition of Bank's IM requirements; as the market adapts to margining rules it is prudent to re-assess the NSFR requirements for IM in the future to ensure it is appropriate for the new environment
- **Proposal:** Allow rehyp IM to offset IM posted and revisit NSFR requirements after impact of margining rules becomes more clear