

BCBS consultation – Minimum haircut floors for securities financing transactions: Technical Amendment

March 31, 2021

Industry Response

31st March 2021

Ms. Carolyn Rogers
Secretary General
Basel Committee on Banking Supervision
Bank for International Settlements
CH-4002 Basel
Switzerland

Dear Ms. Rogers,

BCBS Consultative Document on technical amendments to Minimum haircut floors for SFTs

The International Swaps and Derivatives Association (“ISDA”), the Institute of International Finance (“IIF”), and their members (together, the “Associations”) appreciate the Basel Committee on Banking Supervision (“BCBS”) consultation on the proposed technical amendment for the minimum haircut floors for securities financing transactions (“SFTs”). We fully support the objectives to provide clarification and interpretative guidance contained within the technical amendment – d514 (the “Technical Amendment”)¹. Moreover, the Associations welcome the opportunity to provide feedback on the Technical Amendment and address any additional items identified. We anticipate that as domestic jurisdictions begin adopting the latest round of finalized standards, issues that were not previously anticipated or fully appreciated due to the lack of sufficient testing will present themselves.

We would like to thank the BCBS for their continued efforts in promoting global standards and for their continued engagement with the Associations to understand the various implications of the minimum haircuts on the securities financing market. Given the potential impact of the minimum haircuts for SFTs, we respectfully urge the BCBS to consider our recommendations on the Technical Amendment and additional areas we believe should be highlighted to avoid any unintended consequences, while still achieving the BCBS’s regulatory objectives.

It should be noted that the impact of minimum haircut floors for SFTs in the Basel III revisions will benefit from further quantitative impact analysis. As we understand, the banks are still in the process of updating and developing their calculation capabilities. We would also highlight that not all banks may have consistently applied the same assumptions in their QIS submissions to date in relation to SFTs.

¹ *Technical Amendment: Minimum haircut floors for securities financing transactions*. (2021), available at <https://www.bis.org/bcbs/publ/d514.pdf>

We outline the Industry’s key recommendations below:

No.	Description
1	Scope: Remove certain transactions from the scope of the minimum haircut requirement, in particular securities borrowing transactions.
2	Penalty function: Allow for partial recognition of collateral, preferably through an option that has been suggested by the Financial Stability Board (“FSB”) ² , or at least by providing banks the option to calculate the minimum haircut requirement on a trade-by-trade basis to avoid the cliff-effect and to provide stability in the quantitative determination of the minimum haircut requirement.

I. Scope of the minimum haircut requirement:

The Industry welcomes the clarification related to collateral transactions where the bank posts a higher quality security and receives a lower quality security³. However, the Industry remains concerned that this does not address the fundamental issue of the potentially expansive scope of the minimum haircut requirement; in particular, with respect to securities borrowing transactions. Typically, in a securities borrowing transaction, the bank pays a haircut (see page 5 for illustrative purposes) and therefore is not expected to meet the minimum haircut requirement, as it acts as a borrower in this instance. Therefore, the Industry asks the BCBS to provide additional clarification that all securities borrowing transactions in which the borrower of the security intends to use the received securities to meet a current or anticipated demand are out of scope of the minimum haircut floors for SFTs. In the comments below, we are providing the broader context and rationale for this request.

The intent of the minimum haircut floors for SFTs is to “limit the build-up of excessive leverage outside the banking system, and to help reduce the procyclicality of leverage”⁴ by targeting insufficiently collateralized lending agreements. However, the current contingent exemption to the minimum haircut floors does not effectively exclude securities borrowing transactions, which are not financing transactions traded for the purpose of increasing leverage. The exemption as drafted treats the fully collateralized securities lender as a potentially over-collateralized

² See page 15 in *Regulatory Framework for Haircuts on Non-centrally Cleared Securities Financing Transactions*. (2014), available at https://www.fsb.org/publications/r_141013a.pdf

³ However, it remains unclear which scenario relates to a situation where the counterparty would borrow a security (the bank lent) and not use that security. By definition, the purpose for a non-bank entity to borrow a particular security is to be able to use it (e.g., cover a short position the entity has entered). Therefore, such transactions where the bank was the lender of a security would never be exempted for the minimum haircut requirement given the condition associated with the exemption. This runs counter to the intent of exempting securities borrowing transactions from this minimum haircut requirement where the intent is to borrow a security rather than to provide financing.

⁴ See page 7 in *Regulatory Framework for Haircuts on Non-centrally Cleared Securities Financing Transactions*. (2014), available at https://www.fsb.org/publications/r_141013a.pdf

borrower and requires restrictions on the use of collateral (cash or securities) provided to the securities lender. This must be backed by extensive internal compliance programs and legal representations which may be impractical to gather within agency lending programs containing many thousands of beneficial owners.

Securities borrowing transactions with `securities lenders`, `securities lending programs` or `agent lending programs` are not intended to be treated as financing transactions for the purposes of generating leverage. The purpose of a securities borrowing transaction in this context is to borrow a specific security, often for client facilitation, against collateral (cash or securities) in exchange for a borrow fee. The cash (or securities) received by the securities lender is merely collateral to mitigate potential credit losses against the borrower bank. Banks often source securities from mutual funds and pension funds, which through lending programs lend securities to generate additional returns on idle securities through the fees they charge the banks. If securities borrowing transactions are not effectively excluded from the minimum haircut floors, banks may have to reduce their participation in the securities borrowing market. It should be stressed that such reduced securities borrowing activities could have systemic consequences for financial markets. The securities borrowing market plays an important role in increasing market efficiency by enhancing price discovery in the cash market as well as bolstering market liquidity. In addition, a reduction in the ability to enter securities lending transactions could affect mutual funds and pension funds, their investors, and ultimately retirees to achieve expected returns on their assets.

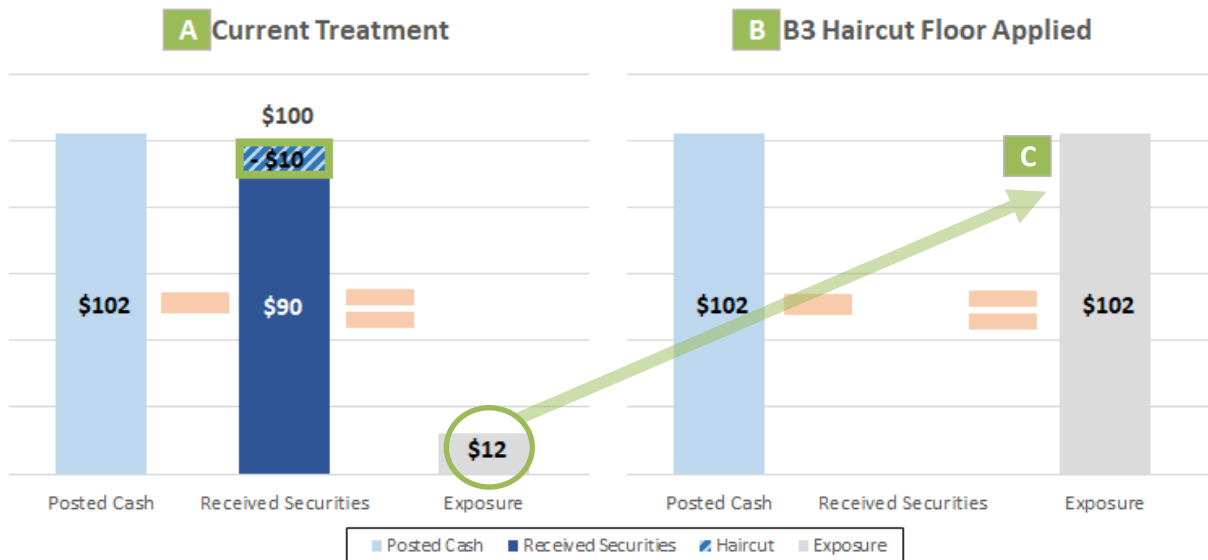
- In our view, it is in keeping with the spirit of the FSB framework to exclude the transactions where a borrower is paying a haircut on collateral posted in a securities borrowing and lending (“SBL”) transaction⁵. However, this cannot be concluded with certainty either from the current BCBS text or from the proposed Technical Amendment.
- As mentioned above, a common purpose for a bank to enter a borrow transaction with a securities lender is to borrow specific securities to facilitate client short sale transactions.
- The SBL market convention for these types of transactions is for the borrower of the security to overcollateralize the lender on the collateral that it posts. The lender always requires the borrower to pay a haircut to mitigate potential credit losses for the securities lender or their underlying beneficial owners. It is not determined by the relative asset quality of the two legs or creditworthiness of the two parties. In certain jurisdictions, there is a legal requirement not to post a haircut for certain SFTs. For example, in the US rule 15c-3-3 of the Securities Exchange Act of 1934⁶, brokers/dealers are required to collateralize borrowing from the customer to a minimum of 100%.

⁵ *Financial Stability Board (FSB), Regulatory framework for haircuts on non-centrally cleared securities financing transactions.* (2020), available at <https://www.fsb.org/2020/09/regulatory-framework-for-haircuts-on-non-centrally-cleared-securities-financing-transactions-5/>

⁶ *SEA Rule 15c3-3*, available at https://www.finra.org/sites/default/files/SEA.Rule_.15c3-3.pdf

- The wording of the regulation should recognize this distinction in the SBL market and the determination of whether to apply the haircut or not should be directed solely at the party receiving the collateral, not to the party borrowing a specific security. Applying the rules using the current BCBS text or the proposed Technical Amendment to such SBL transactions would mean that the haircut payer, i.e., the borrower of the security, will always fail to meet the minimum haircut threshold.
- The exemption of the security borrower in SBL transactions from the minimum haircut requirement should be independent of the type of collateral posted to the lender (securities or cash) and independent of whether the lender can re-pledge or re-sell the securities collateral received, irrespective of how any cash collateral received is re-invested by the lender.

We illustrate in the example below the potential impact on the exposure value for the bank from the application of the minimum haircut requirement where the collateral received, despite being eligible in accordance with the Basel credit risk mitigation criteria, provides no mitigation at all to the total exposure amount.



Regarding each component in the figure above:

- A. Under the current capital treatment, the exposure equals posted collateral (cash) minus collateral (equity securities) that is reduced by a haircut, so in the example above, the exposure is $\$102 - (\$100 - \$10) = \12 .

- B. However, under the new minimum haircut rule, since the bank posts more than it receives (\$102 versus \$100), it fails the haircut floor requirement, and thus the entire cash amount is required to be treated as unsecured – effectively ignoring the collateral received.
- C. This results in a 750% increase in exposure and associated capital requirement.

II. Quantitative determination of the minimum haircut requirement:

The Industry appreciates the BCBS providing a revision to the formula used to calculate the haircut floors for SFTs. However, the Industry still does not believe that its application adequately captures the inherent risks associated with SFTs.

In particular, the binary treatment proposed under the minimum haircut floor standard for SFTs in which legally enforceable and eligible collateral is disregarded completely for RWA purposes runs counter to the prudent use by the banks of credit risk mitigation techniques such as collateralization which are recognized under the rest of the Basel framework, and does not reflect the lower economic risks associated with collateralized transaction versus truly uncollateralized transactions. In addition, the binary treatment is very risk insensitive in that only a small change in margin can result in substantially different capital outcomes.

Below, we describe two alternative approaches to the proposed BCBS capital treatment of SFTs as completely uncollateralized exposures when they do not strictly comply with the minimum haircut floor requirement in the current BCBS text or in the proposed Technical Amendment.

The Industry acknowledges that the FSB proposed two options for the prudential capital treatment of SFTs which do not meet the minimum haircut requirements.⁷ One option which was ultimately adopted by the BCBS results in collateral being completely disregarded. Another option (“FSB Option 2”), however, provides a penalty function by which the size of the shortfall would determine how much collateral would be disregarded. As the FSB mentions, such an approach would still provide the banks incentives to lend or borrow on a secured basis. The Industry suggests that the BCBS should reconsider its choice of options given by the FSB and should adopt FSB Option 2 instead where collateral can be recognized to a certain degree so that the cliff-effects can be avoided. This would also be in line with the overall credit risk mitigation capital standards that are part of the Basel prudential framework for regulated institutions.

Another practical illustration of the cliff-effect is that a change in composition of the netting set (e.g., one transaction expires) could lead to different capital requirements⁸ (e.g., higher capital requirements would be a function of the current outstanding portfolio that does not respect the

⁷ See page 15 in *Regulatory Framework for Haircuts on Non-centrally Cleared Securities Financing Transactions*. (2014), available at https://www.fsb.org/publications/r_141013a.pdf

⁸ Please see appendix of this document for an illustration of this.

portfolio floor while at the inception of new in-scope deals it did). For this purpose, the bank should have the option to meet the minimum haircut requirements, by applying the minimum haircuts to the in-scope deals only on a standalone basis and not on a portfolio basis even in the presence of a margin agreement (e.g., Global Master Repurchase Agreement and Global Master Securities Lending Agreement). This approach would at least ensure that a netting set of transactions would not receive a more punitive treatment than a scenario where each transaction would form its own netting set, which would be less beneficial from a credit risk perspective. As it is not always the case that the standalone approach is the optimal solution, we highlight the benefits of introducing this flexibility in the minimum haircut framework. In other words, it is important that the netting set treatment should be allowed alongside the transaction level treatment. In the appendix, the Industry shows various practical examples where minimum haircut requirements are not met at some point during the life of the netting set and the capital cliff-effects associated with the unsecured treatment of SFTs as currently envisaged in the BCBS standard. Through those examples, the Industry also demonstrates that allowing for partial recognition of collateral by applying FSB Option 2 results in the most stable, predictable, and least arbitrary outcome and is the preferred approach to deal with the cliff-effect.

An additional issue to highlight is that the portfolio calculation does not properly capture certain margining arrangements where the independent amount is calculated on a portfolio basis across SFTs and derivatives. For example, a portfolio could consist of an SFT and a derivative that references the collateral providing protection to these in the portfolio context. Such an SFT portfolio calculation would not be able to capture these transactions. In particular, the rule does not provide a methodology to calculate a minimum portfolio independent amount across derivatives and SFTs and therefore, we would request that these portfolios be exempted from the requirements.

The changes we propose represent in our view a reasonable balance of the regulatory objectives. We urge the BCBS to act upon those recommendations to ensure better alignment of capital and economic risk to enable banks to facilitate capital markets operations in the most efficient manner.

As mentioned above, the Associations' comments are offered with the purpose of continuing to contribute constructively to the development of risk appropriate capital rules. We would be very pleased to engage with the BCBS further in this important area and remain available at your request to provide any additional information. If you or your colleagues have any questions, please reach out to Panayiotis Dionysopoulos (pdionysopoulos@isda.org), Marc Tourangeau (mtourangeau@isda.org), and Richard Gray (rgray@iif.com).

III. Appendix:

The CRE56.10 formula can lead to unpredictable results during a portfolio's life since a breach may appear and disappear when entering new SFTs (whether they are in-scope or not) or when deals reach maturity. Conversely, allowing the option to check the in-scope deals on a standalone basis can give certainty about the capital requirement since it is not a function of the current netting set and therefore the bank is certain about the pricing offered to the counterparty. Moreover, we consider that using FSB Option 2, which provides for partial recognition of collateral, enables us to overcome the limitations of the formula in CRE56.10. As the examples show, such an approach would lead to the most predictable and stable capital outcomes.

For all three examples, the top table represents a situation where there was no breach of the minimum haircut requirement at the portfolio level while the bottom table shows a breach during the life of the portfolio and the corresponding capital outcomes under different treatment scenarios:

Current Treatment (without minimum haircuts): This scenario represents the capital outcome in the absence of any minimum haircut requirement for comparison purposes.

Standalone Transaction Treatment: This scenario represents the capital outcome when the bank is allowed to treat transactions that meet the minimum haircut requirement on a standalone basis as collateralized.

Netting Set Treatment: This scenario represents the capital outcome when the bank treats all in-scope transactions in the netting set as uncollateralized if the minimum haircut requirement is not met.

Partial Recognition Treatment (FSB Option 2): This scenario represents the capital outcome when the bank can apply partial recognition of collateral even if the minimum haircut requirement is not met. This approach referred to as FSB Option 2, reduces the available collateral value AC in the following way:

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

where: C = current value of the collateral received, Hf = haircut floor, H = effective haircut applied to the transaction, θ = set to 4 consistent with the FSB proposal;

In addition to the different treatments, the following also provides an explanation of certain other calculations and assumptions:

- A. The supervisory haircuts under the comprehensive approach assume the risk weights in CRE22.50 (i.e., for jurisdictions that do not allow the use of external ratings for regulatory purposes). The decision was taken because the buckets are simpler than in CRE22.49.

- B. At a portfolio level, collateral shortage (i.e., $\Delta C < 0$) results in a “Breach” while a collateral surplus (i.e. $\Delta C \geq 0$) results in “No breach”.

In the first example, there is a hypothetical netting set A and we illustrate the effect on the netting set of the expiry of one deal (#4) that makes the portfolio experience a sudden breach of the minimum haircut floor requirement.

Example 1: Top Panel (Netting Set A at time t = 0) and Bottom Panel (Netting Set A at t = expiry)⁹

Netting Set A (T=0) Repos / reverse repos	Transaction		Exposure					Collateral					Netting Set Breach Determination				
	Id	type	Amount	Type	f_E	$1+f_E$	$E/(1+f_E)$	Supervisory Haircut (CRE22.50)	Amount	Type	f_C	$1+f_C$	$C/(1+f_C)$	Supervisory Haircut (CRE22.50)	Status	Treatment	
	A							B									
#1	Repo	100.000	Corp >5 ≤10Y	3.0%	1.030	97.087	8.5%	97.000	Cash	0.0%	1.000	97.000	0.0%	No Breach	CCR		
#2	Reverse	100.000	Cash	0.0%	1.000	100.000	0.0%	103.000	Corp >10Y	4.0%	1.040	99.038	14.1%	CCR	CCR		
#3	Reverse	100.000	Cash	0.0%	1.000	100.000	0.0%	102.000	Corp >10Y	4.0%	1.040	98.077	14.1%	CCR	CCR		
#4	Reverse	100.000	Cash	0.0%	1.000	100.000	0.0%	110.000	Sov	0.0%	1.000	110.000	2.8%	CCR	CCR		
SUM		400.000				397.087		412.000				404.115		EAD	28.59		
								Netting set		Netting set minimum haircut floor				f_{NS}		1.209%	
								Netting set		Netting set actual haircut				H		3.000%	
								Netting set		Collateral shortage				ΔC		7.028	

Netting Set A (T=0-X Expiry) Repos / reverse repos	Transaction		Exposure					Collateral					Netting Set Breach Determination		Current Treatment (w/out min haircuts)		Standalone Transaction Treatment		Netting Set Treatment		Partial Recognition Treatment (FSB Option 2)				
	Id	type	Amount	Type	f_E	$1+f_E$	$E/(1+f_E)$	Supervisory Haircut (CRE22.50)	Amount	Type	f_C	$1+f_C$	$C/(1+f_C)$	Supervisory Haircut (CRE22.50)	Status	Treatment	Status	Treatment	Status	Treatment	Status	Treatment	Status	Treatment	
	A							B																	
#1	Repo	100.000	Corp >5 ≤10Y	3.0%	1.030	97.087	8.5%	97.000	Cash	0.0%	1.000	97.000	0.0%	Breach	CCR	No Breach	CCR	Exempted	CCR	Exempted	CCR	Exempted	CCR	Exempted	CCR
#2	Reverse	100.000	Cash	0.0%	1.000	100.000	0.0%	103.000	Corp >10Y	4.0%	1.040	99.038	14.1%	Unsec	CCR	No Breach	CCR	Breach	Unsec	Breach	Unsec	Breach	Unsec	Breach	Unsec
#3	Reverse	100.000	Cash	0.0%	1.000	100.000	0.0%	102.000	Corp >10Y	4.0%	1.040	98.077	14.1%	Unsec	CCR	No Breach	CCR	Breach	Unsec	Breach	Unsec	Breach	Unsec	Breach	Unsec
#4	Reverse	0.000	Cash	0.0%	1.000	0.000	0.0%	0.000	Sov	0.0%	1.000	0.000	2.8%	CCR	CCR	Exempted	CCR	Exempted	CCR	Exempted	CCR	Exempted	CCR	Exempted	CCR
SUM		300.000				297.087		302.000				294.115			EAD	35.48	EAD	211.49	EAD	211.49	EAD	211.49	EAD	46.04	
								Netting set		Netting set minimum haircut floor				f_{NS}		1.684%				f_{NS}		4.000%			
								Netting set		Netting set actual haircut				H		0.667%				H		2.500%			
								Netting set		Collateral shortage				ΔC		-2.972				ΔC		-2.885			

⁹ Note that the netting set breach determination under the old haircut formula in CRE56.10 yields the same outcome (i.e., “No breach” in the top panel and “Breach” in the bottom panel for netting set A).

In the second example, we have another hypothetical netting set B for which we attempt to show that trying to finalize a new deal could cause a breach to the whole portfolio:

Example 2: Top Panel (Netting Set B at t = 0) and Bottom Panel (Netting Set B at t = X, when new deal is struck)¹⁰

Netting Set B (T=0) Repos / reverse repos	Transaction		Exposure					Collateral					Netting Set Breach Determination			
	Id	type	Amount	Type	f_E	$1+f_E$	$E/(1+f_E)$	Supervisory Haircut (CRE22.50)	Amount	Type	f_C	$1+f_C$	$C/(1+f_C)$	Supervisory Haircut (CRE22.50)	Status	Treatment
	#1	Repo	100.000	Corp >5 ≤10Y	3.0%	1.030	97.087	8.5%	99.000	Cash	0.0%	1.000	99.000	0.0%	No breach	CCR
#2	Reverse	100.000	Cash	0.0%	1.000	100.000	0.0%	103.000	Corp >10Y	4.0%	1.040	99.038	14.1%	CCR	CCR	
#3	Reverse	100.000	Cash	0.0%	1.000	100.000	0.0%	104.000	Corp >10Y	4.0%	1.040	100.000	14.1%	CCR	CCR	
SUM		300.000				297.087		306.000				298.038		EAD	31.76	

Netting set	Value
Netting set minimum haircut floor	f_{NS} 1.675%
Netting set actual haircut	H 2.000%
Collateral shortage	ΔC 0.951

Netting Set B (T=X) Repos / reverse repos (adding new deal)	Transaction		Exposure					Collateral					Netting Set Breach Determination		Current Treatment (w/out min haircuts)		Standalone Transaction Treatment		Netting Set Treatment		Partial Recognition Treatment (FSB Option 2)				
	Id	type	Amount	Type	f_E	$1+f_E$	$E/(1+f_E)$	Supervisory Haircut (CRE22.50)	Amount	Type	f_C	$1+f_C$	$C/(1+f_C)$	Supervisory Haircut (CRE22.50)	Status	Treatment	Status	Treatment	Status	Treatment	Status	Treatment	Status	Treatment	
	#1	Repo	100.000	Corp >5 ≤10Y	3.0%	1.030	97.087	8.5%	99.000	Cash	0.0%	1.000	99.000	0.0%	Breach	CCR	No Breach	CCR	Exempted	CCR	Exempted	CCR	Exempted	CCR	Exempted
new	Repo	100.000	Sov	0.0%	1.000	100.000	2.8%	98.000	Cash	0.0%	1.000	98.000	0.0%	CCR		No Breach	CCR	Exempted	CCR	Exempted	CCR	Exempted	CCR	Exempted	CCR
#2	Reverse	100.000	Cash	0.0%	1.000	100.000	0.0%	103.000	Corp >10Y	4.0%	1.040	99.038	14.1%	Unsec		No Breach	CCR	Breach	Unsec	Breach	Unsec	Breach	Unsec	Breach	Unsec
#3	Reverse	100.000	Cash	0.0%	1.000	100.000	0.0%	104.000	Corp >10Y	4.0%	1.040	100.000	14.1%	Unsec	No Breach	CCR	No Breach	CCR	Breach	Unsec	Breach	Unsec	Breach	Unsec	
SUM		400.000				397.087		404.000				396.038		EAD	36.59	EAD	125.02	EAD	214.31	EAD	40.14	EAD	40.14		

Netting set	Value
Netting set minimum haircut floor	f_{NS} 1.268%
Netting set actual haircut	H 1.000%
Collateral shortage	ΔC -1.049

Netting set	Value
Netting set minimum haircut floor	f_{NS} 4.000%
Netting set actual haircut	H 3.500%
Collateral shortage	ΔC -0.962

¹⁰ Note that the netting set breach determination under the old haircut formula in CRE56.10 yields the same outcome (i.e., “No breach” in the top panel and “Breach” in the bottom panel for netting set B).

In the below example, we illustrate that by changing slightly the collateral amount of some of the SFTs (#2 and #3), the netting set treatment shifts from beneficial to detrimental.

Example 3: Top Panel (Netting Set C) and Bottom Panel (Netting Set C with small change in collateral amounts)¹¹

Netting Set C Securities borrowing/lending	Transaction		Exposure					Collateral					Netting Set Breach Determination																	
	Id	type	Amount	Type	f_E	$1+f_E$	$E/(1+f_E)$	Supervisory Haircut (CRE22.50)	Amount	Type	f_C	$1+f_C$	$C/(1+f_C)$	Supervisory Haircut (CRE22.50)	Status	Treatment														
																	A													
#1	SLaB	106.000	EQ main	6.0%	1.060	100.000	14.1%	100.000	EQ main	6.0%	1.060	94.340	14.1%	No breach	CCR															
#2	SLaB	100.000	EQ main	6.0%	1.060	94.340	14.1%	104.000	EQ main	6.0%	1.060	98.113	14.1%		CCR															
#3	SLaB	100.000	EQ main	6.0%	1.060	94.340	14.1%	104.000	EQ main	6.0%	1.060	98.113	14.1%		CCR															
SUM		306.000				288.679		308.000				290.566		EAD	84.83															
<table border="1"> <tr> <td rowspan="3">Netting set</td> <td colspan="2">Netting set minimum haircut floor</td> <td>f_{NS}</td> <td>0.000%</td> </tr> <tr> <td colspan="2">Netting set actual haircut</td> <td>H</td> <td>0.654%</td> </tr> <tr> <td colspan="2">Collateral shortage</td> <td>ΔC</td> <td>1.887</td> </tr> </table>														Netting set	Netting set minimum haircut floor		f_{NS}	0.000%	Netting set actual haircut		H	0.654%	Collateral shortage		ΔC	1.887	B			
Netting set	Netting set minimum haircut floor		f_{NS}	0.000%																										
	Netting set actual haircut		H	0.654%																										
	Collateral shortage		ΔC	1.887																										

Netting Set C With Small Change in Collateral	Transaction		Exposure					Collateral					Netting Set Breach Determination		Current Treatment (w/out min haircuts)		Standalone Transaction Treatment		Netting Set Treatment		Partial Recognition Treatment (FSB Option 2)											
	Id	type	Amount	Type	f_E	$1+f_E$	$E/(1+f_E)$	Supervisory Haircut (CRE22.50)	Amount	Type	f_C	$1+f_C$	$C/(1+f_C)$	Supervisory Haircut (CRE22.50)	Status	Treatment	Status	Treatment	Status	Treatment	Status	Treatment	Status	Treatment								
#1	SLaB	106.000	EQ main	6.0%	1.060	100.000	14.1%	100.000	EQ main	6.0%	1.060	94.340	14.1%	Breach	Unsec	No Breach	CCR	Breach	Unsec	Breach	Unsec	Breach	Unsec	Breach	Unsec							
#2	SLaB	100.000	EQ main	6.0%	1.060	94.340	14.1%	102.000	EQ main	6.0%	1.060	96.226	14.1%		No Breach	CCR	No breach	CCR	Breach	Unsec	Breach	Unsec	Breach	Unsec								
#3	SLaB	100.000	EQ main	6.0%	1.060	94.340	14.1%	102.000	EQ main	6.0%	1.060	96.226	14.1%		No Breach	CCR	No breach	CCR	Breach	Unsec	Breach	Unsec	Breach	Unsec								
SUM		306.000				288.679		304.000				286.792		EAD	88.27	EAD	159.13	EAD	306.00	EAD	95.09											
<table border="1"> <tr> <td rowspan="3">Netting set</td> <td colspan="2">Netting set minimum haircut floor</td> <td>f_{NS}</td> <td>0.000%</td> </tr> <tr> <td colspan="2">Netting set actual haircut</td> <td>H</td> <td>-0.654%</td> </tr> <tr> <td colspan="2">Collateral shortage</td> <td>ΔC</td> <td>-1.887</td> </tr> </table>														Netting set	Netting set minimum haircut floor		f_{NS}	0.000%	Netting set actual haircut		H	-0.654%	Collateral shortage		ΔC	-1.887						
Netting set	Netting set minimum haircut floor		f_{NS}	0.000%																												
	Netting set actual haircut		H	-0.654%																												
	Collateral shortage		ΔC	-1.887																												

¹¹ Note that the netting set breach determination under the old haircut formula in CRE56.10 yields the same outcome (i.e., “No breach” in the top panel and “Breach” in the bottom panel for netting set C).