Just in Time

Hedging of Counterparty Credit Risk Exposures

BSBC Technical Amendment and ISDA/IIF Public Comment

Apr 2025

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Executive Summary

On November 2024, **BCBS** purposed **Technical Amendments** to the credit risk and CCR standards, introducing a **floor on the Unprotected Portion** of counterparty credit risk exposures, **preventing** banks from **fully offsetting** their risk using CDS and guarantees to ensure **more conservative capital requirements**. **ISDA (International Swaps and Derivatives Association) and IIF (Institute of International Finance)** challenge these revisions, arguing that they **overstate residual risk, disincentivize effective hedging strategies, and impose excessive capital requirements**. Finally, they advocate for **removing or recalibrating the floor** to better align regulatory capital with actual risk exposure.

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At a Glance

Keywords: Counterparty Credit Risk, Risk-Weight, BCBS, ISDA, IIF

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01

Introduction

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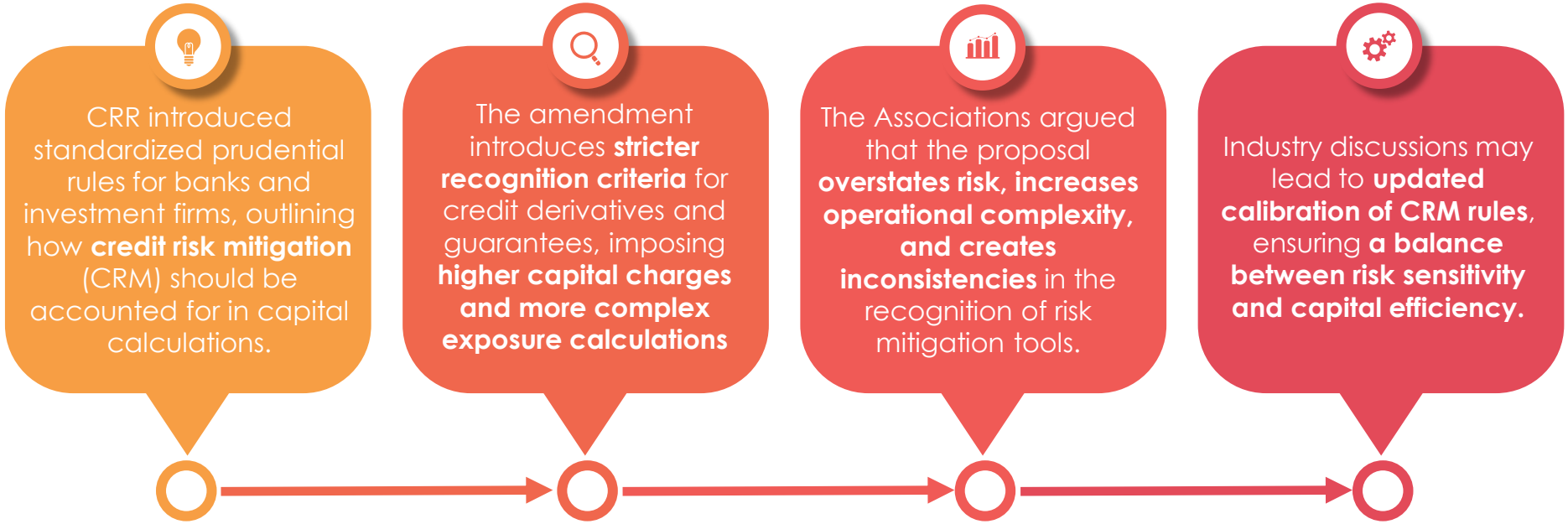
Introduction

On November 2024, BCSC introduced a **technical amendment** that changes how financial institutions recognize hedging of **counterparty credit risk**. This amendment imposes **stricter rules on credit risk mitigation**, increasing capital charges and complexity while treating credit derivatives less favorably than collateral. **ISDA** (International Swaps and Derivatives Association) & **IIF** (Institute of International Finance) warn that it **overstates risk** and **discourages hedging**, calling for a more balanced approach to ensure fair capital treatment and financial stability.



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02

Regulation

Risk-weighted Exposure Amounts for Credit Risk

Numerical Example

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Regulation 1/2

Risk-weighted Exposure Amounts for Credit Risk

The risk-weighted exposure amounts for exposures to corporates, institutions, central governments, and central banks must be calculated in accordance with **Article 153** of the **CRR**, which provides the formulas for determining the **Risk Weight** (**RW**) applied to exposures that meet the criteria outlined in **Articles 202** and **217**.

Art. 153

For each exposure which fulfills the conditions in Articles 202 and 217 it holds the following formula:

$$\textbf{Risk} - \textbf{weighted exposure amount} = RW \cdot (0.15 + 160 \cdot PD_{PP}) \cdot exposure\ value = RW_{adj} \cdot exposure\ value$$

with $PD_{PP} = PD\ of\ the\ protection\ provider$ and RW set out for both the cases in which $0 < PD < 1$ and $PD = 1$

Art. 202

It defines the **eligibility criteria for unfunded credit protection providers** when using IRB approach specifying that only the counterparties that meet the following conditions can be qualified as eligible guarantors or protection providers:

- Sufficient expertise in providing unfunded credit protection
- Regulation equivalent to EU rules or a credit assessment meeting the required quality step
- Internal rating with a Probability of Default (PD) equivalent to or lower than the required quality step
- Credit protection from export credit agencies does not benefit from explicit government counter-guarantees

Art. 217

It details the **conditions under which an exposure qualifies for preferential risk-weight treatment under Article 153(3)**:

- The underlying obligation relates to corporate exposure, exposure to regional/local governments or public sector entities, or exposure to SMEs classified as retail according to **Article 147**
- The obligors are not in the same group as the protection provider
- The exposure is hedged through single-name credit derivatives or guarantees, first-to-default or nth-to-default basket products
- Credit protection meets additional requirements in **Articles 213,215,** and **216**
- The risk weight of the exposure does not already consider credit protection
- Purchased credit protection covers all credit losses due to credit events
- Written legal confirmation of credit protection terms
- A process to detect excessive correlation between protection provider and obligor
- If protection is against dilution risk, the seller of receivables cannot be in the same group as the protection provider

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Regulation 2/2

Numerical Example

This slide presents a numerical example based on **Article 153(iii)**, demonstrating how $\boldsymbol{RW}$ **decreases** when **credit protection is obtained** from a counterpart with lower PD than the obligor. The formula assumes $\boldsymbol{LGD = 0.6}$ and $\boldsymbol{M = 1}$, illustrating the impact of adjusting PD on capital requirements.

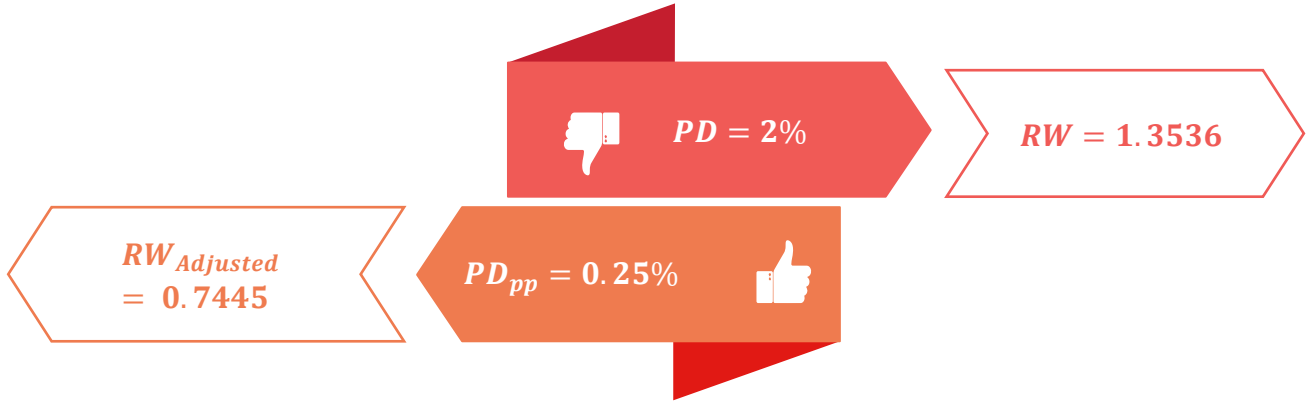
$$RW = \left[LGD \cdot N\left(\frac{1}{\sqrt{1-R}} \cdot G(PD) + \sqrt{\frac{R}{1-R}} \cdot G(0.999) \right) - LGD \cdot PD \right] \cdot \frac{1 + (M - 2.5) \cdot b}{1 - 1.5 \cdot b} \cdot 12.5 \cdot 1.6$$

where:

- $R = 0.12 \cdot \frac{1-e^{-50 \cdot PD}}{1-e^{-50}} + 0.24 \cdot \left(1 - \frac{1-e^{-50 \cdot PD}}{1-e^{-50}}\right)$ denotes the coefficient of correlation;
- $b = (0.11852 - 0.05478 \cdot \ln(PD))^2$ denotes the maturity adjustment factor;
- $N(x)$ is the cumulative distribution function for a standard normal random variable;
- $G(z)$ denotes the inverse cumulative distribution function for a standard normal random variable.

Numerical Example

The numerical example highlights how $\boldsymbol{RW}$ **is impacted by credit protection.** While the initial $\boldsymbol{PD}$ $(\boldsymbol{2\%})$ leads to $\boldsymbol{RW = 1.3536}$, applying credit protection reduces the effective PD $(\boldsymbol{PD_{pp} = 0.25\%})$, which is then used in the RW_{adj} formula, resulting in a lower capital requirement $(\boldsymbol{RW_{adj} = 0.7445})$.



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03

BSBC Technical Amendment

Technical Amendment Overview

Proposed Revisions to the Basel Framework

Numerical Example

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Technical Amendment Overview

Hedging Counterparty Exposures

The **Basel Committee on Banking Supervision** continuously monitors the implementation of its standards to ensure the consistency of the **Basel Framework**. While some issues can be clarified through **FAQs,** others require **amendments** to the standards.
The **Technical Amendment** at hand relates to the treatment of **guarantees** and **credit derivative** protection within the **Counterparty Credit Risk (CCR)** framework.

Problem Identified

- While **SA-CCR** provides specific rules for **collateral** recognition, it does not cover **CDSs** and **guarantees**.
- The banks may apply **Substitution Approach** to handle them (**CRE51.16**) resulting in no recognition of a **residual risk** and leading to **inconsistency** with respect to the current treatment of collateral.

Proposed Solution

- The Committee wants to **align** the treatment of guarantees and credit derivative protection with the one of eligible collateral in the CCR framework **removing the current inconsistency**.
- In such a way, it can be ensured the **recognition of the residual risk** in capital requirements.

Objective

- Enhance **consistency** and **prudence** in the CCR framework.
- Strengthen **risk management** for counterparty exposure ensure better identification, assessment and mitigation of potential risks arising from counterparty relationships.

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Proposed Revisions to the Basel Framework 1/2

CRE51 *Counterparty Credit Risk Overview*

The proposed Amendment introduces **CRE51.19**, which outlines how banks should **calculate the covered and uncovered portions** of their counterparty credit risk exposures when using guarantees or credit derivatives under the **SA-CCR** or **IMM** frameworks.
This approach ensures a **conservative assessment of residual risks**, preventing full offsetting of exposures that could leave gaps in protection.

CRE51.19

When the banks rely on guarantees or credit derivatives under the SA-CCR or IMM frameworks and the protection amount is fixed or capped, they face the risk that this protection may not fully cover the exposure at default.
In order to address this, the rule requires banks to determine the protected and unprotected portions as follows:

1. **Protected Portion**: This is the Exposure at Default (EAD) calculated under SA-CCR or IMM, minus the unprotected portion.
2. **Unprotected Portion**: Determined as the greater of:
   - The EAD assuming the guarantee or credit derivative acts like fixed cash collateral equal to the maximum potential claim on the protection provider.
   - The EAD without considering the protection, minus the maximum contingent claim from the protection provider.

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Proposed Revisions to the Basel Framework 2/2

***CRE22** Standardized and CRE32 IRB Approaches*

Existing standard

The risk of credit exposures in transactions with credit protection is defined as follows: the covered portion follows the risk weight of the protection provider, while the uncovered portion follows the risk weight of the counterparty.

CRE22.79

Proposed standard

The uncovered portion is dertemined without considering the credit protection. **CRE51.19** provides the guidelines to accurately identify the protected and unprotected portions of counterparty credit risk exposures, subject to SA-CCR or IMM methodologies.

CRM (Credit Risk Mitigation) using guarantees or credit derivatives cannot consider the effects of double default. Therefore, when CRM is recognized by the bank, the adjusted risk weight cannot be lower than that of similar direct exposure to the protection provider.

CRE32.22

CRE51.19 must be considered to accurately determine the protected and unprotected portions of counterparty credit risk exposures, particularly for those subject to the SA-CCR or IMM.

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Numerical Example

To better explain the effect of the proposed Technical Amendment, BSBC proposes an example in which a bank uses **SA-CCR to compute the EAD for an unmargined netting set and IRB for risk weights**, considering $RW\ of\ the\ derivative\ counterparty$ and $RW\ of\ CDS\ counterparty$ equal to, respectively, RW and RW_{adj} computed as in slide 8, and assuming **the Add-On from SA-CCR for the derivate is 10$.**

a) A derivative exposure with **no collateral** taken and **no mitigating CDS**

- $V = 0\ \$$, i.e. the current market value of the derivative exposure is null
- $C = 0\ \$$ since no collateral is taken

$$EAD = 14\$$$

$$\boldsymbol{RWA = 14\$ \cdot RW\ of\ derivative\ counterparty} = 14\$ \cdot 1.3536 = \boldsymbol{18.95\$}$$

b) A derivative exposure with **$14 of cash collateral** and **no mitigating CDS**

- $V = 0\ \$$, i.e. the current market value of the derivative exposure is null
- $C = 14\$$

$$EAD = alpha \cdot (RC + PFE) = 1.4 \cdot (0\$ + multiplier \cdot 10\$) = 1.4 \cdot (0\$ + 50.5\% \cdot 10\$) = 7.1\$$$

with $multiplier = min\left(1, 5\% + 95\% \cdot e^{\frac{(0-14)}{(2 \cdot 95\% \cdot 10)}}\right) = 50.5\%$

$$\boldsymbol{RWA = 7.1\$ \cdot RW\ of\ derivative\ counterparty} = 7.1\$ \cdot 1.3536 = \boldsymbol{9.61\$}$$

$$EAD = alpha \cdot (RC + PFE) = 1.4 \cdot (RC + PFE), \qquad RC = \max(V - C, 0)$$

V is the value of the derivative transactions in the netting set, C is the haircut value of the net collateral taken $\text{PFE} = \text{multiplier} \cdot AddOn$

$$multiplier = min\left(1, Floor + (1 - Floor) \cdot e^{\frac{V-C}{2 \cdot (1-Floor) \cdot AddOn}}\right), \qquad Floor = 5\%$$

c) A derivative exposure **hedged with a** $14 **CDS applying the substitution approach implied by existing standard**

$EAD = 14\$$ when it is referred to the CCR exposure to the derivative counterparty
$EAD = 0\$$ when it is referred to the CDS counterparty giving 0$ of RWA as per **CRE51.16**

$$\boldsymbol{RWA = 14\$ \cdot RW\ of\ CDS\ counterparty} = 14\$ \cdot 0.7445 = \boldsymbol{10.42\$}$$ (i.e., substitution approach)

d) A derivative exposure hedged with a $**14 CDS applying TA (CRE51.19)**

$EAD = 7.1\$$ assuming the CDS acts like fixed cash collateral (**CRE51.19**), like b)
$EAD = 14\$ - 14\$ = 0\$ = EAD$ without considering the protection, like a) -max contingent claim (**CRE51.19**)

$$\boldsymbol{Unprotected\ amount} = max(7.1\$, 0\$) = 7.1\$ \text{ (CRE51.19)}$$
$$\boldsymbol{Protected\ amount} = exposure\ to\ derivative\ counterparty - unprotected\ \text{part} = 6.9\$$$

$$\boldsymbol{RWA = 6.9\$ \cdot RW\ of\ CDS\ counterparty + 7.1\$ \cdot RW\ of\ derivative\ counterparty}$$
$$= 6.9\$ \cdot 0.7445 + 7.1\$ \cdot 1.3536 = \boldsymbol{14.75\$}$$

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04

ISDA/IIF Public Comment

Key Concerns

Numerical Examples

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Key Concerns 1/4

ISDA (International Swaps and Derivatives Association) & IIF (Institute of International Finance), representing key financial institutions, have identified **serious concerns** that could **undermine risk management** and **increase costs** for banks. In the Associations opinion, this amendment, in its current form, **discourages hedging activities** and **creates operational inefficiencies without necessarily improving risk measurement accuracy**.

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ISDA/IIF Public Comment 2/5

Key Concerns 2/4

	Why	Consequences	Purposed Solutions
Overly Conservative Credit Risk Treatment*	- **Unrealistic Assumption:** Protection providers are often stronger than the counterparty, making simultaneous default unlikely. - **Higher Capital Charges:** Hedged exposures face capital requirements as high as unhedged ones, making hedging less attractive. - **Regulatory Distortion:** Banks may avoid hedging due to excessive capital costs, reducing financial stability.	- **Increased Capital Burden:** Ties up capital, reducing lending and investment. - **Less Use of Risk Mitigation:** Makes credit derivatives & guarantees less viable. - **Weaker Financial Stability:** Limits banks' ability to absorb shocks.	- **Adjust the default correlation** assumption to reflect real risk levels. - Ensure **fair capital treatment** so hedged exposures receive appropriate relief. - **Support effective risk management.**
Increased Operational Burden	- **More Complex Risk Calculations:** Banks must perform dual calculations for each exposure, doubling the computational workload. - **Higher Compliance Costs:** The additional calculations require system upgrades, and increased reporting efforts. - **Disproportionate Impact on Large Portfolios:** Institutions with high volumes of derivatives will face greater operational burdens.	- **Higher Costs:** Increased spending on compliance, technology, and staffing. - **Reduced Efficiency:** Slower risk management processes and operational delays. - **Competitive Disadvantages:** Smaller institutions may struggle, while larger banks may pass costs to clients.	- **Streamline calculations** to avoid unnecessary duplication. - **Ensure regulatory requirements are proportionate** to actual risk. - **Maintain efficiency** while ensuring compliance and transparency.

*Numerical example a)

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Key Concerns 3/4

	Why	Consequences	Purposed Solutions
Inconsistencies in Credit Risk Mitigation Recognition	**- Unequal Treatment:** Banks using credit derivatives or guarantees receive less capital relief than those using collateral. **- Regulatory Bias:** Encourages reliance on collateral-based risk mitigation, even when credit derivatives provide a more effective hedge. **- Market Distortions:** Creates unnecessary constraints on how banks manage risk, reducing flexibility.	**- Unfair Capital Charges:** Hedged exposures do not receive full recognition, making risk mitigation less effective. **- Reduced Hedging Incentives and Less Efficient Risk Management:** Forces institutions to prioritize collateral over other valid hedging methods, limiting flexibility.	**- Align treatment** of credit derivatives, guarantees, and collateral to ensure consistent capital relief. **- Eliminate regulatory bias** against credit derivatives as a hedging tool. **- Support diverse risk mitigation strategies**.
Flaws in PFE Multiplier Calibration*	**- Overly Conservative Approach:** The PFE multiplier does not adjust appropriately when additional collateral or hedging reduces exposure. **- Inflated Risk Exposure:** Even well-hedged positions are assigned high future exposure values, overstating risk. **- Disincentive for Risk Management:** Banks receive limited capital relief for hedging efforts, reducing the incentive to use credit derivatives and guarantees.	**- Higher Capital Charges**: Banks must hold excessive capital, even for well-hedged exposures. **- Less Efficient Use of Collateral**: Institutions may avoid overcollateralization. **- Market Distortions**: Increased capital costs may reduce hedging activity.	**- Recalibrate the PFE multiplier** to better reflect real-world risk exposure. **- Recognize overcollateralization** and **strong credit protection** when calculating future exposure. - Ensure **proportional capital treatment**, so well-hedged positions receive appropriate risk relief.

*Numerical example d)

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ISDA/IIF Public Comment 4/5

Key Concerns 4/4

	Why	Consequences	Purposed Solutions
Unclear Haircut Application*	**- Uncertainty in Implementation**: BSBC did not specify whether maturity and currency haircuts should apply to credit derivatives and guarantees. **- Double Penalization**: If haircuts are imposed, the capital relief from hedging would be severely diminished. **- Discourages Use of Credit Protection**: If banks cannot accurately estimate the impact of haircuts, they may avoid using credit derivatives and guarantees altogether.	**- Reduced Effectiveness**: Haircuts could significantly decrease the value of hedges. **- Inconsistent Treatment**: Collateral and credit derivatives may be subject to different standards, creating regulatory distortions. **- Operational Complexity & Compliance Challenges**: Banks face uncertainty in capital planning.	- Clarify that **maturity and currency haircuts should not be applied** to credit derivatives in the same way as cash collateral. **- Ensure consistency across risk mitigation tools** to prevent regulatory biases. - Provide **clear guidance** on how haircuts should be applied.
Flooring Issue**	**- Limits Risk Reduction**: even if a bank hedges most of its exposure, it is still required to hold capital for a minimum unprotected amount, overstating the true risk. **- Unequal Treatment**: unlike cash collateral, credit derivatives and guarantees face restrictions that cap their risk-reducing effect. **- Discourages Hedging: t**he floor reduces the incentive to use credit risk mitigation tools.	**- Overstated Risk Exposure**: banks must carry unnecessary capital charges. **- Higher Costs for Risk Management**: makes hedging less attractive, forcing banks to absorb more risk instead of mitigating it. **- Reduced Market Efficiency**: banks may scale back their participation in derivatives markets.	**- Remove the floor** to allow full recognition of effective credit risk mitigation. - Ensure **consistent treatment** of credit derivatives, guarantees, and collateral. **- Adjust exposure calculations** to reflect true economic risk, rather than imposing arbitrary limits.

*Numerical example b)
**Numerical example c)

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Numerical Examples

ISDA/IIF, leveraging on Case 4 of the illustrative numerical example in Annex 2 of the BSBC's TA and making some new assumptions, tried to numerically demonstrate some of the described concerns.

a) **Fair vs. Flawed Hedging Treatment**: TAs impose unnecessary capital charges on hedged exposures, while ISDA/IIF alternative method ensures true risk reduction is recognized.

Scenario	Unprotected EAD vs derivative CTP	Protected EAD vs CDS CTP	CCR to CDS Protection Provider
Technical Amendments	$7.1	$6.9	Exempt CRE51.16(1)
Industry Recommendation	$7.1	$0	Not exempt

b) **Unclear Haircut Rules**: applying maturity haircuts to credit protection could drastically reduce its effectiveness, creating inconsistent treatment between collateral and credit derivatives.

Scenario	Value of unadjusted credit protection	Value of adjusted credit protection	Unprotected EAD against derivative counterparty	Protected EAD against CDS counterparty
TA without of haircuts	$14	$14	$7.1	$6.9
TA with haircuts	$14	$\$5.16 = \$14(\frac{2-0.25}{5-0.25})$	$10.8	$3.2

c) **Flooring Distorts Risk Reduction**: the imposed floor prevents full recognition of credit protection, forcing banks to hold unnecessary capital even when exposures are effectively hedged (assumptions: MV = $20 with a $34 CDS, $EAD_{original}$ is $42).

Scenario	Unprotected EAD <u>before</u> floor	Unprotected EAD <u>with</u> floor	Unprotected EAD
TA (CRE51.19)	$EAD_{unprotected\ before\ floor} = 1.4(\$0 + \$5.05) = \$7.07$	$EAD_{unprotected\ with\ floor} = EAD_{original} - N_{hedge} = \$42 - \$34 = \$8.00$	$\max\{EAD_{unprotected\ before\ floor}; EAD_{unprotected\ with\ floor}\} = \$8.00$

d) **PFE Multiplier Fails to Recognize Protection**: even with substantial credit risk mitigation, the conservative PFE calculation inflates exposure, leading to excessive capital requirements (assumptions: financial CTP with 100% risk weight).

Scenario	PFE multiplier	EAD of the CCR exposure	RWA of the CCR exposure
TA without guarantee (CRE51.19)	$9.9	$1.4(\$0 + 70.7\% * \$10) = \$9.9$	$EAD * 100\% = \$9.9$
TA with guarantees (CRE51.19(1))	$3.9	$\$9.9 - \$3.9 = \$6.0$	$RWA_{Unprotected} - RWA_{protected} = \$3.9$

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