International Association of Credit Portfolio Managers

Risk Mitigation Techniques in Credit Portfolio Management

August 2024

Risk sharing with credit investors and insurers is an integral part of sustainable growth strategies

IACPM

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Introduction

Credit market conditions, as well as prudential and sustainability regulations, are reshaping the financial services industry. In all financial industry sectors, the discipline of **credit portfolio management** is expanding coverage across all asset classes, and is evolving to assist:

- The **"front-end"** function of credit origination into the portfolio, in policies related to risk appetite and concentration limit frameworks, in risk and risk/return assessment and pricing, in loan documentation, in Climate & ESG risk and impact assessment, and in promotion of sustainable finance.
- The **"back-end"** function of loan portfolio management, aiming at facilitating lending growth by creating more lending capacity, mitigating concentrations and reducing capital requirements, by using private or public risk transfer solutions like loan sales, private credit risk insurance, credit default swaps, funded and unfunded securitizations.

The IACPM recognizes the unique and evolving role of credit portfolio managers in today's financial environment and in the transition towards a more sustainable and resilient economy. With its members active in banking, investment and insurance, the Association seeks to advance the practice of credit portfolio management in all financial sectors and is recognized as a trusted advisor by regulators globally

The purpose of this paper is to

- provide an overview of available private risk mitigation and risk sharing techniques used in the "back-end" function of loan portfolio management through the whole credit cycle, describe their purpose and impact,
- show the volumes of private risk sharing solutions as collected annually by the IACPM,
- inform about IACPM initiatives to advance the effective and prudent usage of these tools by loan portfolio managers.

Overview of Risk Mitigation Techniques

Level of Risk Transfer

To achieve these goals, risk can be transferred at different granularity levels in a portfolio of loans:

- A **single position** level, i.e., per loan, or per legal borrower
  - By reducing exposure at loan or borrower level, a firm releases credit limits per client and the capital absorbed by the transferred exposure. However, unfunded solutions retain counterparty risk on the protection seller.
- At **portfolio level**, the portfolio is sliced either vertically or horizontally (via securitizations)
  - Vertical slicing releases genuine credit default risk at position level, similar to single loan or single name credit protection, and also reduces credit exposure on the asset class of all borrowers in the pool,
  - Horizontal slicing ("securitization") mitigates expected and/or unexpected losses (portfolio risk) and release the capital attached to tranches of the distribution of losses but does not allow to allocate this risk mitigation to individual borrower level.

Instruments Used for Risk Transfer

Whatever the level of risk transfer as described above, the instruments used for risk transfer are:

- either funded ("true sale"), via loan sales or syndication, or loan sales to a true sale/cash securitization vehicle,
- or unfunded, via financial guarantees, credit derivatives or credit insurance contracts, transferring risk to sellers of credit protection without transferring the assets. Such a risk transfer can also be structured as a synthetic on balance-sheet securitization with prior horizontal slicing to establish a waterfall of losses allocated per tranche. The various tranches of a synthetic securitization can be funded (by credit linked notes or collateralised guarantees), or protected on an unfunded basis, using eventually a separate special-purpose securitization vehicle (SPV).

The following table provides an overview of the risk transfer instruments available to credit portfolio managers, depending on the desired level of risk mitigation.

<table>
<tr><th rowspan="3">Risk transfer Instruments</th><th colspan="5">Level of risk transfer</th></tr>
<tr><th rowspan="2">Single Loan</th><th rowspan="2">Single Borrower</th><th colspan="3">Portfolio of loans, sliced</th></tr>
<tr><th>Vertically</th><th colspan="2">Horizontally ("securitizations")</th></tr>
<tr><td>Funded ('True sale')</td><td>Loan sales, syndication</td><td>N/A</td><td>Loan Sales</td><td>Loan Sales</td><td>Cash securitization</td></tr>
<tr><td rowspan="3">Unfunded credit protection</td><td>Private credit risk insurance</td><td rowspan="3">Credit derivative</td><td>Private credit risk insurance</td><td>Private credit risk insurance</td><td rowspan="3">Synthetic securitization (funded or not)</td></tr>
<tr><td rowspan="2">Financial guarantee</td><td>Financial guarantee</td><td>Financial guarantee</td></tr>
<tr><td>Credit derivative</td><td>Credit derivative</td></tr>
</table>

Impact of the Risk Transfer: Risk Mitigation and Risk Transformation

Depending on transaction type and structure, different parameters of credit risk can be mitigated:

- either exposure at single name level, or
- cumulative expected losses (“first loss”) up to transaction termination, increasing with the intensity of default (PD) and severity (LGD) risks in the underlying loans, or
- uncertainty of losses, i.e. economic or regulatory capital absorbed (“mezzanine”), increasing with
  - the exposure to jump-to-default events on interconnected borrowers, in non-granular assets pools or in pools of loans sensitive to the same external event like acute physical risk, and/or
  - the stress correlation between the loans of the pool, which can be inflated by dependency between the credit standing of the borrowers and the value of collateral assets (e.g., residential and commercial mortgages).

Below is a summary of the credit risk mitigation objectives that can or cannot be used when credit portfolio managers transfer different levels of risk:

Increasing lending capacity by reducing...			Exposure to a borrower	Provisions for loan losses	Stressed losses/ capital
Single loan level					
Single borrower level					
Portfolio level	Vertical slicing				
	Horizontal slicing	First loss			
		Mezzanine			
		Senior			

Can be achieved   Cannot be achieved

However, depending on the instrument used for credit risk mitigation, the risk transformation introduces new financial and non-financial risks, which can be complex to estimate and mitigate, like:

- **Counterparty risk** on the sellers of unfunded risk protections, and **collateral valuation risk**, if applicable,
- **Basis risk**, due to mismatches in default, recovery or maturity in credit derivatives that do not reference the exact same borrower and loan, or due to general exclusions in credit insurance contracts,
- **Accounting mismatches** between the underlying asset(s) and the risk mitigating instrument, which can follow different accounting valuation rules,or recognize losses and recoveries at different moments in time,
- **Flow-back risk** in the retained senior tranche of securitization if real losses exceed the protected junior tranches in a credit crisis situation, also called **“model risk”**
- **Operational risk**, as all risk mitigants require effective documentation, monitoring and exposure allocation.

The main financial new risks created by credit risk mitigants are summarized in the table hereunder:

<table>
<tr><th colspan="3">New risks</th><th>True sale</th><th>PCRI</th><th>Financial guarantee</th><th>Stressed losses/ capital</th></tr>
<tr><td colspan="3">Single loan level</td><td></td><td colspan="2" rowspan="2">Counterparty (CP) and collateral risk
Basis Risk</td><td rowspan="2">Counterparty and collateral risk
Basis risk
Accounting mismatches</td></tr>
<tr><td colspan="3">Single borrower level</td><td></td></tr>
<tr><td rowspan="4">Portfolio level</td><td colspan="2">Vertical slicing</td><td></td><td colspan="3"></td></tr>
<tr><td rowspan="3">Horizontal slicing</td><td>First loss</td><td rowspan="3">Model risk</td><td colspan="3" rowspan="3">Model risk
Counterparty risk</td></tr>
<tr><td>Mezzanine</td></tr>
<tr><td>Senior</td></tr>
</table>

The **transformation of risk** must be understood and managed by credit portfolio managers, and is one of the main shared concerns not only of financial institutions but also of regulators, who are adding layers of conservatism by buffers in capital, due diligence and transparency requirements, independent significant risk transfer assessment, etc.

Although the transfer of risks between banks and non-banks is supported by policy makers to mitigate the systemic effect of bank crises, the **growth of non-banks** is now another concern of policy makers. Some non-banks are prudentially regulated (e.g., insurers and large investment firms), but most of the non-banks (e.g., credit funds) remain unregulated and not necessarily subject to disclosure requirements.

Focus on Private Risk Sharing Solutions

To actively manage retained loans in the banking book, credit portfolio managers can consider selling loans, if feasible, but generally favor **unfunded** solutions which strictly transfer credit risk only, without affecting neither the ALM management nor the commercial relationship.

These solutions are executed in **private markets**, mostly under the format of insurance contracts or private on-balance-sheet securitizations.

Credit Insurance Contracts

Transaction Types

Loan insurance contracts can be branded "Non-Payment Insurance" (NPI), "Credit and Political Risk Insurance" (CPRI) or "Private Credit and Political Risk Insurance" (PCRI).

They are all **insurance contracts** eligible under the Basel "credit risk mitigation (CRM) framework", where the reduction of credit risk derives from the obligation of a third party to pay an amount or compensate for expected cash-flows in the event of the non-payment of the insured borrower or in the occurrence of other specified covered events.

The economic substance of these contracts is the same as a guarantee, i.e., meets the definition of Unfunded Credit Protection (UFCP) and can be recognized as Credit Risk Mitigant for the prudential capital requirements calculation in accordance with applicable local requirements for guarantees.

Borrowers protected by credit insurance are typically rated BBB or lower and do not have access to capital markets, so cannot be protected by credit derivatives.

Protection Providers

Credit insurance contracts are offered by regulated entities which qualify as insurance or reinsurance companies, as defined under Solvency II or equivalent prudential regulations.

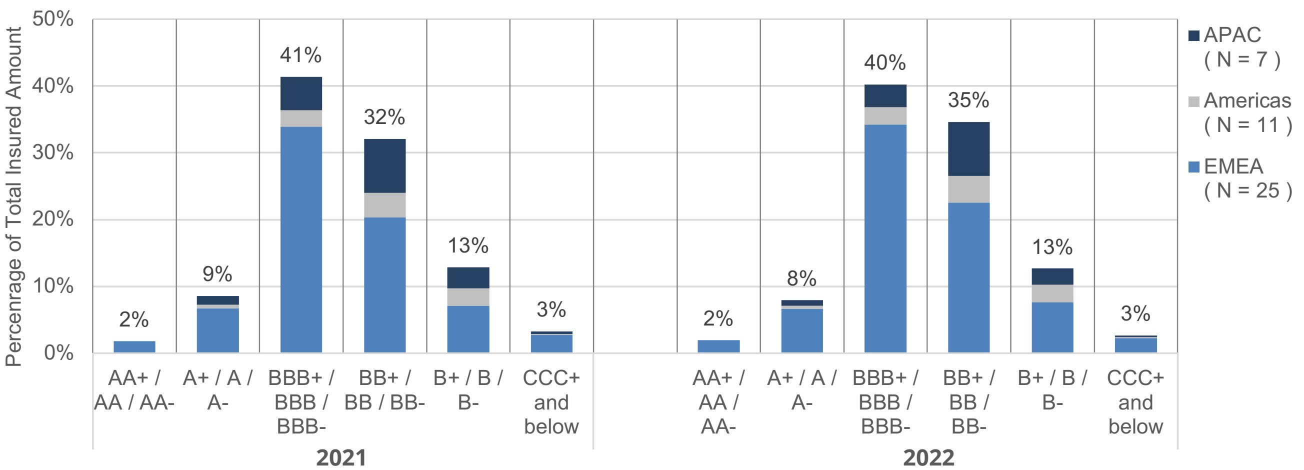
These insurance contracts are recognized in prudential regulations as

- accounted on the liability-side of (re)insurers' balance-sheets and
- senior to bondholders and other providers of credit to the (re)insurance company

(Re)insurers which offer these credit protections are not monoline credit insurers, but global, regionalor specialized non-life (re)insurers with a very diversified P&C activity, credit insurance contracts representing only a minor part of the premia collected.

All underwriting contracts are syndicated across several insurance companies, with external re-insurance of tail credit losses in their credit underwriting book.

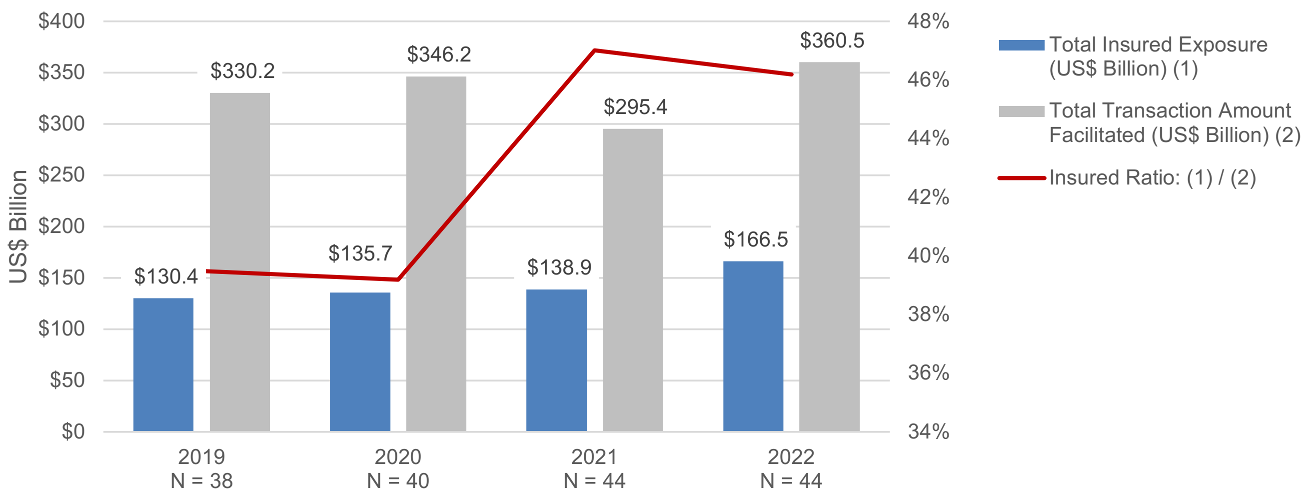
In addition, (re)insurers are highly rated to enable capital release in the jurisdictions where insurers are eligible CRM counterparties, i.e., in most jurisdictions except the US.



Volumes in the Market

By the end of 2022, the joint IACPM/ITFA survey conducted with 48 banks globally, indicated a 20% increase in insured exposure, with 46% of € 360 billion of credit facilities protected by insurers.

With 72% of the insured exposure, European banks are leading in usage of credit insurance, with 81% of their insured exposures executed to obtain also capital relief, versus 41% in the rest of the world.



CPRI Volume (USD Billion)	Global	Europe (EU + UK)	Rest of the world
	N=44	N=21	N=23
Total aggregated insured exposure	**166,5**	119,3	46,7
	100%	72%	28%
Exposure insured for risk mitigation only	50,4	22,2	28,3
% of total insured exposure	30%	19%	61%
Exposure insured for capital relief	116,1	97,1	19,0
% of total insured exposure	70%	81%	41%

For more details on IACPM/ITFA survey results, per geography and asset class, see latest survey results on the IACPM website: https://iacpm.org/CPRI-Survey-Results

Private SRT Securitizations

Transaction Types

The vast majority of transactions aiming at Significant Risk Transfer (SRT) are structured synthetically, with transfer of the credit risk on first loss and mezzanine tranches, the senior tranches being retained by banks.

Transactions are structured with or without SPV, depending on market maturity and investors' appetite for being exposed to bank credit risk. Risk is transferred via credit linked notes (with an embedded CDS or guarantee), collateralized guarantees or credit derivatives, or unfunded credit insurance.

Protection Providers

Investors and protection providers in the first loss and mezzanine tranches are typically specialized SRT funds, acting as portfolio managers on behalf of mostly pension funds, but also institutional investors like insurance companies and sovereign wealth funds.

After a comprehensive due diligence of banks' business and risk management practices on the asset classes they want to invest in, these specialized investors participate in the structuring of the private transactions and act as long-term partners of banks, looking for an ongoing stable return throughout the cycle.

Insurers have been very active in insurance of GSE RMBS in the US since more than 10 years, with Credit Insurance Risk Transfer (CIRT) programs. However, most of them only entered the SRT market in Europe on corporate and SME assets in Europe around 2020, offering unfunded protection mostly on the upper mezzanine tranches of synthetic or true sale securitizations.

Volumes in the Market

SRT transactions included in the IACPM yearly survey 2016-2023 have been executed by 40 of the largest global and regional banks using this tool to release capital and reinvest the proceeds to further lending growth in their respective jurisdictions.

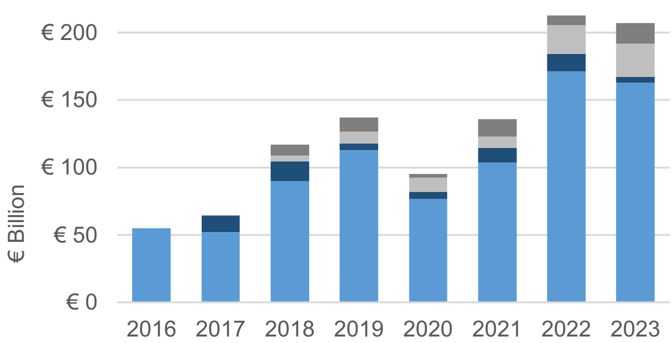
The survey captured however transactions from a growing number of new entrants regulated under the Standardized Approach, which represent now more than 20% of the trades reported in 2023.

Volumes - €billion		At Inception		Year-End 2023	
		Global	EU	Global	EU
Underlying Pools of Loans	2016-2023	1,024	572	614	299
	2023	207	102	197	98
Protected Tranches	2016-2023	82 (8%)	42 (7.3%)	55 (8.9%)	24 (7.9%)
	2023	18.5 (8.9%)	7.5 (7.3%)	18.2 (9.2%)	7.3 (7.5%)

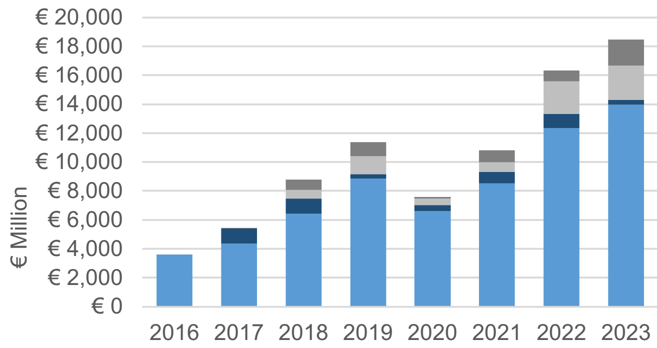
Securitized volumes continued to increase substantially, with **more than 500 synthetic SRT transactions** issued or renewed between 2016 and 2023, protecting both expected and unexpected losses on **more than € 1 trillion of underlying loans**. The year **2023** highlighted similar growth as seen in 2022, with more than **€ 200 billion new issuance**.

By the end of 2023, more than **€600 bn of bank loans** were covered by **€55 bn** (close to 9%) of junior tranches. Despite an expected increase in corporate credit default rates, private credit investors, acting as long-term partners of banks, continued to have an appetite in first loss tranches attaching at 0%.

Underlying Pool Size at Inception In Billion Euro, By Underlying Asset Class



Protected Tranches* at Inception In Million Euro, By Underlying Asset Class



Business/Real Economy Finance (1) | Specialized Lending (2) | Retail Finance (3) | Other

(*) Protected tranche volume does not include placed senior tranche volume.
(1) Corporate, SMEs, Trade Finance, Mixed | (2) Project Finance, Object Finance, Commercial Mortgages, Income-producing Real Estate (IPRE) Lending
(3) Residential Mortgage Loans, All Other Retail Exposures

Half of the loans securitized synthetically in 2023 were originated in the European Union. The **2023 issuance** of EU SRT transactions **(€102 bn) exceeded the volume of placed true sale issuance (€94.7 bn)**. A growing number of trades (50% vs 33% in the prior two years) qualify as STS (EU synthetic securitization regulation) and benefit from a more favorable capital treatment in CRR3.

By the end of 2023, close to **€300** bn of EU bank loans were covered by **€24** bn (close to 8%) of first loss and mezzanine tranches, protected by investors and insurers on a funded or unfunded basis.

The average **risk-weight** of securitized loans remain stable at 63%, continuing to highlight the large share of corporate and SME loans (80%) as well as specialized finance. The increasing number of EU regional and North American banks is however impacting the asset profile, with a growing share of retail and mortgage finance.

The share of sustainability-linked trades - through underlying assets, use-of-proceeds, and incentives in the deal structure - is also gradually increasing, mainly in Europe, reaching 11% in 2023 up from 6% in 2022.

For more details on trends and differences per jurisdictions, see latest survey results on the IACPM website: https://iacpm.org/SRT-Survey-Results

Conclusion

Risk sharing is expected to continue growing, because of

- increasing prudential requirements for banks, combined with profitability challenges,
- growing investment needs, to finance the digital and sustainability transition overall,
- new entrants in private lending, with new business models, using securitization as a funding instrument, and
- increasing investors' appetite for illiquid credit assets.

Risk sharing is also complex, and – as explained in the note - requires clear objectives to identify the most appropriate solution to achieve targeted risk mitigation and capital efficiency.

Risk sharing requires also knowledge sharing between all stakeholders – banks, investors, insurers, regulators and supervisors – so that it benefits the economy and society.

The IACPM is committed to assist its members and the policy makers to achieve these ambitious goals.

IACPM Initiatives to Support and Advance Effective Usage of Risk Mitigation Techniques

For the most widely used and for emerging techniques of risk mitigation, the IACPM is providing support to its members in the form of ongoing and ad-hoc working groups, data collection / targeted research and advocacy vis-à-vis the main regulatory bodies across the world.

In particular, in this specific domain of Credit Portfolio Management, the Association prioritizes its research and advocacy efforts on the documentation, risk assessment, regulatory treatment and transparency of critical tools which are the foundations of the above transformation in credit portfolio management, i.e.

- Credit Insurance Contracts – Loan protections
- Credit default swaps (CDS),
- Synthetic securitizations with first and/or mezzanine risk mitigation (SRT).

Data Collection / Research
https://iacpm.org/research/

Biennial IACPM/ITFA survey on Credit Insurance Contracts on Loans (banks only)
Collecting data on volumes, protected assets, pricing and claims on non-payment insurance transactions executed by banks and eligible as financial guarantees

Annual Synthetic Securitization Volume survey (banks only)
Collecting transaction-level data on volumes, structuring features, pricing, investor profiles and underlying portfolio performance on public and private synthetic securitizations executed by member firms

Annual Unfunded SRT survey (credit insurers only)
Collecting data on volumes, underlying assets and protected tranches of synthetic securitizations executed by credit insurers

Biennial Principles and Practices survey (all members)
Updating on developments in the credit portfolio management function, including usage of risk mitigation tools

Ad-hoc surveys
Performed to better understand practices in specific domains

Working Groups

Monthly Regulatory Update Call
Covers global regulatory developments

Credit Insurance Working Group
Engages with global regulators for a fair treatment of non-payment insurance as credit risk mitigant

Securitization Working Group
Focuses on synthetic on balance-sheet securitizations, including significant risk transfer assessment, frameworks for Simple, Transparent and Standard and for green/sustainable securitizations, treatment in the various prudential capital regulations, disclosure and due diligence requirements, etc

Accounting and Market Working Groups
Meet as needed on issues related to IFRS 9/ CECL (accounting) and market developments such as NoR CDS (Market), FRTB or SEC 10B-1.

Climate Risk Focus Group
Meets quarterly to discuss evolving risk assessments, metrics and portfolio approaches

Effectiveness of Regulatory Capital Release – IACPM Advocacy Priorities

The credit and market environment continues to evolve rapidly amid the need to support lending growth while balancing risk and return without affecting financial stability. Credit portfolio managers are being called upon to assess and mitigate the new risks which emerged after the pandemic, as well as contribute to the transition path of their credit portfolio to deliver the sustainability objectives of their firms.

Accordingly, a number of transformative considerations for the financial industry looking forward will require public – private partnership to assess and mitigate risks and establish or adjust the appropriate risk management and regulatory frameworks. Among these challenges, which have an effect on capital allocation priorities, are:

- Improvement of **profitability**, requiring allocation of capital not only to balance-sheet risks, but also to technology innovations
- Increase of **market-based funding** of the economy, notably by long-term institutional investors like pension funds
- Growing role of **insurers** in supporting economic growth, both on the assets side (investments) and the liability side (credit insurance) of their balance-sheet
- Transition to **sustainable finance**, and growing investors demand for investments that promote climate transition

Therefore, the IACPM wants to promote the best practices that assure the effective and prudent use

of risk transfer techniques in lending books, and their alignment with the related treatment in prudential and disclosure regulations.

Appendix

IACPM **advocacy initiatives** can be illustrated as follows for each of the instruments:

	Research	Advocacy
Credit Insurance	• Biennial Survey with ITFA	• Recognition of the super senior level of insurance protections in counterparty risk through a lower LGD • Standardisation of credit insurance contracts • Impact of Basel III finalisation
CDS		• IFRS accounting of CDS hedges (completed) • Eligibility of CDS without restructuring clause • Impact of Basel III finalisation
Synthetic securitization	• Yearly survey with banks on synthetic securitization • Yearly survey with credit insurers on unfunded SRT transactions • Ad-hoc survey on ESMA reporting adequacy	• Participating in the comprehensive review of securitization regulations • Simplification of the significant risk transfer assessment process • Reduction of the non-neutrality effect for synthetic on B/S transactions (p factor, senior RW floor) • Impact of Basel III finalization and output floor • Simplification of the disclosure templates for private securitizations • Review of the criteria for synthetic STS transactions in the EU (homogeneity, triggers for amortization, synthetic excess spread, etc) • (EU) Eligibility of credit insurers as providers of credit protection in STS transactions • Framework for sustainable securitization supporting the ESG transition • Actions to grow the volume of securitizations in the European Capital Markets Union

Acronyms

The lexicon of private Credit Risk Transfer solutions is evolving over time and per region.

- Credit Insurance contracts protect against the loss in case of default on a single exposure or on a pool of exposures without tranching, and can be branded
  - Non-Payment Insurance (NPI),
  - Credit and Political Risk Insurance (CPRI), or
  - Private Credit Risk Insurance (PCRI).
- Synthetic Securitizations aim at credit risk transfer on a pool of exposures, with tranching, and can be branded
  - SRT, for Significant Risk Transfer or Synthetic Risk Transfer, a terminology primarily used in Europe, UK and Canada,
  - CRT, for Credit Risk Transfer or Capital Relief Trade, a terminology primarily used in the US,
  - Funded SRT or CRT, if investors purchase Credit Linked Notes issued by a special purpose vehicle (SPV) or directly by the bank, or protect the bank by a collateralized guarantee,
  - Unfunded SRT or CRT, if insurers protect the risk of loss of tranches on an uncollateralized basis,
  - Hybrid SRT or CRT, if both funded (junior) and unfunded (generally upper mezzanine) tranches are combined in the same transaction.

IACPM

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About the IACPM

The IACPM is an industry association established to further the practice of credit exposure management by providing a forum for its members to exchange ideas. Membership in the IACPM is open to all financial institutions worldwide that manage portfolios of corporate loans, bonds or similar credit sensitive financial instruments.

The Association represents its members before regulators around the world, holds bi-annual conferences and regional meetings, conducts research on the credit portfolio management field, and works with other organizations on issues of mutual interest relating to the measurement and management of portfolio risk.

Currently, there are 145 financial institutions worldwide that are members of the IACPM. These institutions are based in 32 countries and include many of the world's largest commercial wholesale banks, investment banks and insurance companies, as well as funds/asset managers and development banks and export credit agencies.

Today credit and market conditions, and new regulations, are transforming the financial services industry. The discipline of credit portfolio management is evolving within firms to include the measurement and management of credit risk at the enterprise level, in addition to execution of risk mitigation strategies in credit markets. CPM has increasing linkages with: front-end credit originators; the setting of risk appetite and limit structures; funding and liquidity for the firm; data and analytics; and the measurement and management of ESG and climate risk. CPM is also expanding coverage of credit assets beyond investment grade and leveraged to include middle market and retail, as well as in some cases bonds and other credit-sensitive instruments.

The IACPM brings together a unique community of credit risk and portfolio managers and provides the platform to identify and address the critical issues for CPM today.