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Recycling Risk: Synthetic Risk Transfers

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ABSTRACT

This paper analyzes the rapid growth and evolving landscape of synthetic risk transfers (SRTs), a securitization tool increasingly used by banks to manage credit risk and optimize capital. Since 2016, over $1 trillion in assets have been synthetically securitized, with recent expansion driven by U.S. banks alongside established European issuers. SRTs enable banks to transfer credit risk on diverse loan pools to investors, facilitating capital relief and supporting additional lending. The paper reviews market trends, common SRT structures, and regulatory frameworks across major jurisdictions. We find that SRTs offer benefits such as enhanced risk management and capital efficiency, and that strengthened prudential requirements and a relatively small SRT market have, for now, contained financial stability risks. However, the rapid growth of SRTs and certain transaction complexities can increase vulnerabilities, including higher leverage in the financial system and exposure to rollover risks. The entry of risk-tolerant investors seeking compelling returns may also weaken credit standards or increase leverage. The paper highlights the importance of close supervisory monitoring, robust reporting, and disclosure to ensure risks are effectively transferred, financial system leverage is contained, and market discipline is maintained as the SRT market continues to expand.

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WORKING PAPERS

Recycling Risk: Synthetic Risk Transfers

Prepared by Fabio Cortes, Gonzalo Fernandez Dionis, Yiran Li, Silvia L. Ramirez, and Xiaoxiao Zhang[1]

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Abbreviations

BSG..... Basel Standards Group

BCBS..... Basel Committee on Bank Supervision

CDS..... Credit Default Swap

CLN ..... Credit-Linked Note

CLO ..... Collateralized Loan Obligation

CET1 ..... Common Equity Tier 1 Capital

CRE..... Commercial Real Estate

CRR..... Capital Requirement Regulation

EBA ..... European Banking Authority

ECB ..... European Central Bank

ESRB..... European Systemic Risk Board

EU ..... European Union

FRB ..... Federal Reserve Board

GFC..... Global Financial Crisis

GSIB..... Global Systemically Important Bank

HVCRE…...High Volatility Commercial Real Estate

IACPM ..... International Associations of Credit Portfolio Managers

IOSCO..... International Organization of Securities Commission

ISDA..... International Swaps and Derivatives Association

ROE..... Return on Equity

RWA..... Risk-Weighted Asset

RWEA..... Risk-Weighted Exposure Amount

SME..... Small and Medium Size Enterprise

SPV ..... Special Purpose Vehicle

SCI ..... Structured Credit Investor

SRT ..... Synthetic Risk Transfer

STC ..... Simple, Transparent and Comparable

Introduction

More banks around the globe are turning to synthetic risk transfers (SRTs), a form of securitization, to manage credit risk and optimize capital. Over $1 trillion in assets, ranging from auto loans to subscription credit lines, have been synthetically securitized globally since 2016.[1] European issuers have historically dominated the SRT market, while growth accelerated in 2022–23 as U.S. banks' issuance increased; this trend is projected to continue throughout 2024–25.[2] Through SRT securitization, banks can buy credit protection on an underlying pool of loans, transfer the credit risk to investors, and, subject to regulation, reduce regulatory capital requirements. This can lead to a more flexible process of balance sheet optimization, creating conditions for additional bank lending.[3]

Strengthened prudential requirements and a relatively small SRT market have, for now, kept financial stability risks from SRTs contained. Post-Global Financial Crisis regulatory reforms have enhanced risk retention and regulatory standards, bolstering the resilience of securitization markets, which extend to most SRTs. However, the rapid growth of the SRT market, and certain characteristics and complexities of SRT transactions, can increase financial sector vulnerabilities.

First, SRTs can increase the overall leverage of the financial system by transferring credit risk originated by banks to less regulated financial institutions, such as hedge funds, which have more freedom to use leverage. As a result, the operations of a diverse set of financial institutions become more intertwined, raising potential contagion risks and hindering financial system-wide risk assessments. These risks are exacerbated by regulatory arbitrage opportunities across the sectors involved and the private and opaque nature of the transactions, which challenges the evaluation of exposures. Additionally, banks often provide leverage to investors, meaning that part of the credit risk is retained within the banking system.

Second, the number of SRT investors is limited, and the market is very concentrated, exposing banks to rollover risks. Credit funds and asset managers have accounted for close to 60 percent of the global investor pool in recent years, and the top 10 investors hold over 75 percent of banks' outstanding SRT exposure.[4,5] In addition, the maturity of SRTs is often much shorter than the maturity of the underlying loan portfolio. If investors suddenly withdraw from the market, banks could face an abrupt increase in capital needs as their risk-weighted assets increase and capital ratios decline. Additionally, banks could face higher funding costs and liquidity pressures if SRTs need to be replaced by higher-cost funding structures during normal or stressful times.

Finally, compelling returns from SRT transactions have attracted more risk-tolerant investors, potentially leading to a deterioration in credit standards or higher leverage to finance certain transactions. In pursuit of higher returns, certain investors could resort to riskier deal structures and higher leverage. Increased

[1] According to the International Association of Credit Portfolio Managers.
[2] Based on Duarte (January 2025) and reports from Bloomberg and Chorus Capital noting 2025 issuance of over $30 billion.
[3] The Future of European Competitiveness, Mario Draghi (2024).
[4] Synthetic Securitization Market Volume 2016–2024. International Association of Credit Portfolio Managers.
[5] "SRTs to support bank capital despite concentration and regulatory scrutiny." Moody's Ratings Sector in Depth. May 6, 2025.

competition for deals can erode due diligence and weaken underwriting standards. Overall, this process could make the broad financial system more vulnerable to credit shocks.

When the appropriate safeguards are in place, SRTs can be an effective tool for banks to manage risks and capital requirements, improving their capacity to diversify exposures and lend. They can also improve investors' risk-return frontier by providing alternative investment, risk profiles and diversification benefits. However, harvesting these potential benefits is conditional on regulators and market participants continuing to monitor transactions closely to: ensure that risks are transferred effectively, incentives for sound origination standards are preserved, and financial system leverage is contained. It is also important to ensure proper reporting and disclosure requirements so that the transactions are sufficiently transparent to both supervisors and market participants, fostering market discipline.

This note provides a broad view of the SRT market and discusses both the benefits and potential vulnerabilities and risks to financial stability. Section I provides broad market trends, defines the characteristics of the most common transactions, and offers examples of how SRTs can be structured to obtain capital relief. Section II provides an update on the regulatory landscape. Section III discusses the benefits and potential vulnerabilities and risks of SRT transactions. Section IV concludes by discussing measures that could mitigate potential risks to financial stability.

I. Synthetic Credit Risk Transfers: Market Trends and Structures

Market Trends

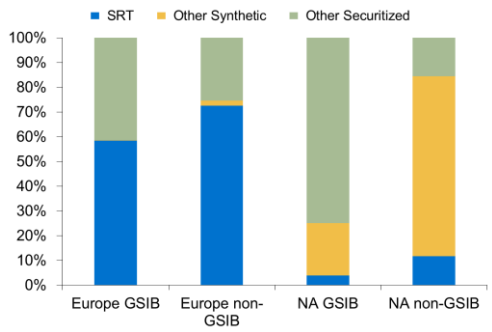
SRTs are among the tools most utilized by banks for credit risk transfers (Figure 1, panel 1), particularly in Europe where the market is more developed compared to the United States. The number of deals and the volume of the underlying loans protected through SRTs (called underlying or reference pools) have increased about fourfold between 2016 and 2022, albeit from a low base (Figure 1, panels 2 and 3).

Figure 1. SRT Activity Has Been Strong Over the Past Years

SRTs are a commonly used tool for credit risk transfers

1. 2Q24 Europe vs. North America Securitization Exposure Composition

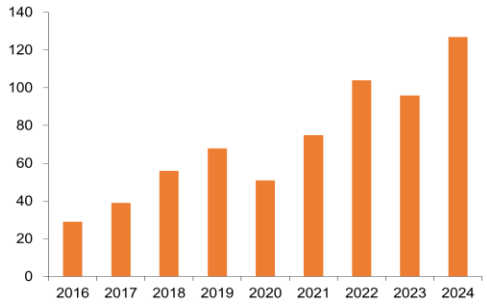
Percent



The number of deals has increased significantly since 2016

2. SRT Deals

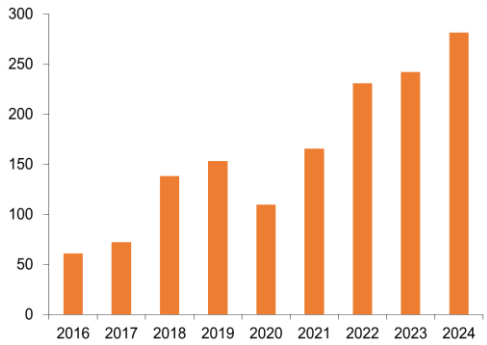
Number of deals per year



Annual SRT issuance surpassed $200 billion in protected loan pools since 2022

3. SRT Underlying Pool of Loans

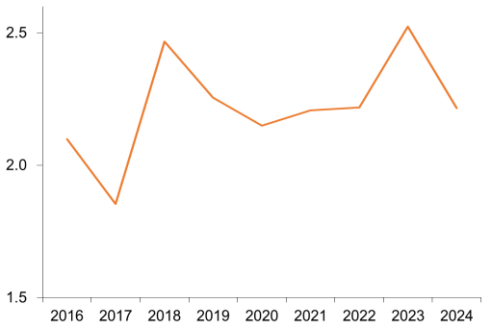
Billions of U.S. dollars per year



The average size of the deal fluctuated around to $2.0 - $2.5 billion per transaction

4. Average size SRT deal

Billions of U.S. dollars



Sources: IACPM Synthetic Securitization Global Bank Data Report 2016–2024, International Association of Credit Portfolio Managers (IACPM). https://iacpm.org/, Basel III, Pillar 3 disclosures and IMF staff estimates.

Note: Panel 1 shows the percentage of securitization exposure retained by banks (as originators) from Basel III, Pillar 3 regulatory disclosures, which report securitization exposures in the non-trading book by type (traditional and synthetic). Panel 3 shows the amount of the underlying SRT loan pools backing up issuance per year. SRT = Synthetic risk transfer; Other synthetic corresponds to the synthetic securitization total minus SRT; Other securitized corresponds total securitized minus synthetic securitization; GSIB = Global Systemically Important Bank; NA GSIB = North America GSIB; NA non-GSIB = non-GSIB banks in North America.

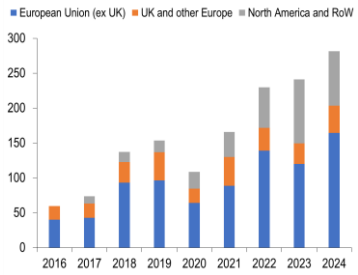
In addition, the average size of an SRT deal has fluctuated slightly since 2020, between $2 billion to $2.5 billion per transaction (Figure 1, panel 4). Since 2016, SRTs have been structured for over $1 trillion worth of loans globally.[6] The average life of SRTs typically range from 3 to 5 years, depending on the structure and underlying pool characteristics.

Although SRT markets have been active for almost two decades, particularly in Europe, issuance only picked up in 2014–2015 after improved guidance and a more streamlined approval process were introduced by the European Central Bank (ECB). The market expanded significantly when Canadian and U.S. banks began to issue in size after 2022.

Figure 2. Activity in North America is Reaching European Levels

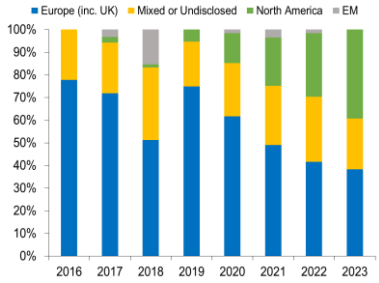
European issuers have been predominant

1. Geographical Breakdown by Issuer Region (IACPM)
Billions of U.S. dollars



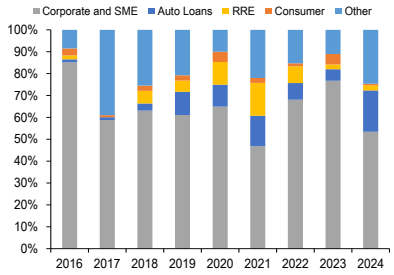
Location of asset pools show increasing activity in North America

2. Geographical Breakdown by Asset Pool (SCI)
Percent of Total



Corporate and SME loans remain the dominant underlying asset types

3.Deal Type by Underlying Loan Pool (SCI)
Percent of Total



Sources: Structured Credit Investor (SCI) and IACPM Synthetic Securitization Global Bank Data Report 2016–2024, International Association of Credit Portfolio Managers (IACPM). https://iacpm.org/.

SRT issuers include globally systemically important banks (GSIBs), non-GSIBs, international organizations, and multilateral development banks. European and U.K. GSIBs have been the predominant issuers in the initial stages of the SRT market. In 2022 and 2023, other regions, particularly Canada and the United States, significantly increased their issuance (Figure 2, panels 1 and 2). 7,8 The market in the U.S. received substantial boost after guidance on Regulation Q was issued by the Federal Reserve (see Regulatory Landscape section).

Most SRT issuance has traditionally been and continues to be collateralized by corporate and small- and medium-enterprise (SME) loans, a well-known category of stable lending by investors. However, in recent years, the asset pools have expanded to include residential real estate loans, auto, other consumer loans, and subscription lines (Figure 2, Panel 3). For additional market trends see Appendix 1.

[6] IACPM Synthetic Securitization Global Bank Data Report 2016–2024, International Association of Credit Portfolio Managers (IACPM).
[7] SRT deal-level data is extremely limited, as transactions are private. There is aggregate annual data on loan pool sizes, asset types, and geographic region from the International Association of Credit Portfolio Managers (IACPM). Pre-transaction data based on market news is available from Structured Credit Investor (SCI). Post-transaction exposure data is available for banks subject to Basel III, Pillar 3 disclosures. The following analysis is based on a combination of all resources aimed at providing a view of the evolution of the SRT market, originators, and range of asset types.
[8] Based on Structured Credit Investor (SCI) data collected between November 2005 and December 2024 for issuers; excludes multilateral agencies. See https://www.structuredcreditinvestor.com.

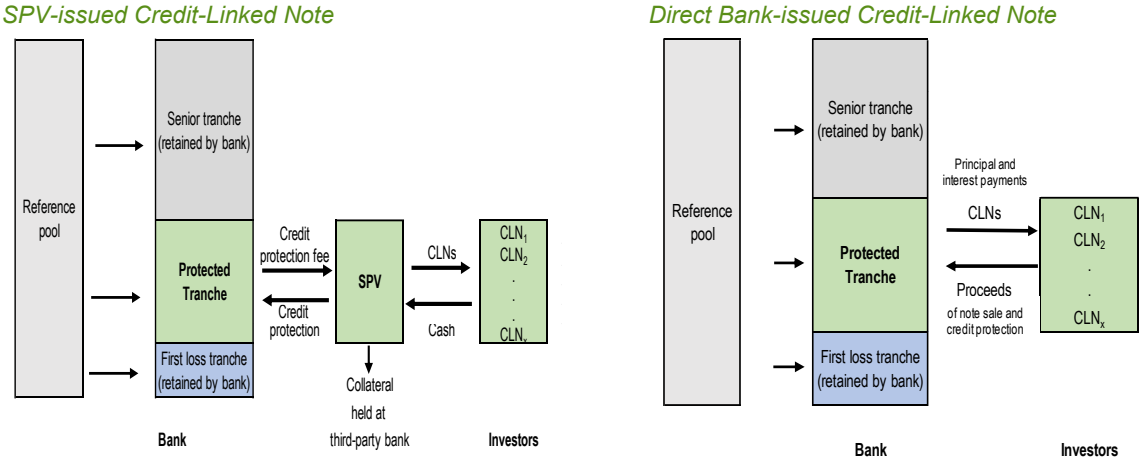
Structures

This section focuses on the most widely used SRT structures, the credit-linked notes (CLNs) issued directly by the bank ("bank direct-issued CLN) or through a special purpose vehicle ("SPV issued CLN").[9]

SPV-issued CLNs

Since inception, the structure most utilized by European banks has been the SPV-issued CLN, according to the European Systemic Risk Board (ESRB).[10] Under this structure, the bank transfers the credit risk associated with a pool of loans (not the assets themselves) to an SPV via a credit default swap (CDS) or financial guarantee.[11] The SPV acts as an intermediary, issuing CLNs to investors and using the proceeds to fund a collateral account that will support the credit protection for the bank (known as a funded transaction). Investors buy the CLNs and receive premium payments from the SPV while, in return, they take on the credit risk of the underlying assets. We illustrate the dynamics of this transaction in Figure 3 and discuss the main steps below.

Figure 3. Most Used SRT Structures



Source: IMF staff.
Note: The protected tranche is typically the mezzanine tranche. Investors receive CLN payments, which comprise a spread funded by the credit protection paid by the bank plus the investment income generated from the upfront collateral.

First, the bank selects the reference loan portfolio for the SRT structure that aligns with the bank's strategy for regulatory capital optimization. The reference portfolio is split into tranches of different seniority, ranging from the riskier tranche (known as first loss, junior, or equity tranche) to the intermediate level of risk tranche (known as the mezzanine tranche) to the less risky senior tranche. The bank typically retains the senior tranche accounting for most of the reference pool (often more than 80 percent) and the first loss tranche, which accounts for a small part of the reference loan pool (1 or 2 percent).

Second, the bank enters into a credit protection agreement (CDS or financial guarantee) with the SPV to buy credit protection on the mezzanine tranche. The SPV agrees to cover the loan portfolio's losses up to

[9] SPVs can be used in SRT transactions to provide bankruptcy remoteness, ensuring that the reference assets are protected even if the originating bank faces financial stress. There are other structures that can be used, including bilateral CDS and financial guarantees, albeit these structures are used less often than bank direct-issued and SPV issued CLNs. For details about other SRT structures, please see Gonzalez (2023) and Cadwalader, Wichersham & Taff LLP (2024).
[10] ESRB reports that the bulk of securitization volume is structured using an SPV (May 2025)
[11] 2014 ISDA Credit Derivatives Definitions.

a negotiated threshold. Each tranche has an attachment and detachment point at which it starts and stops absorbing losses, and these vary according to the regulatory framework in each jurisdiction, which in some cases might introduce nonlinear dynamics to the SRT structure (see Regulatory Framework and Capital Relief and Appendix 2).[12] In exchange for credit protection, the bank pays the SPV a periodic fee. The bank transfers the risk of the mezzanine tranche to the SPV synthetically, as the bank does not sell the underlying loans. The synthetic transfer allows the bank to maintain the loans on its balance sheet and keep the customer relationship with the borrower. Importantly, each loan in the reference portfolio meets eligibility criteria set by the protection seller and the protection buyer. Plus, the protection seller usually has access to loan-level disclosures to assess the risk and performance of the reference portfolio as negotiated in the terms of the deal.

Third, the SPV transfers the mezzanine tranche risk to investors by issuing CLNs. In a funded or collateralized transaction, investors purchase the CLNs and pay cash up front. The cash amount corresponds to the maximum loss the SPV could be responsible for. The cash is transferred by the SPV to a third-party custodian bank to be held as collateral for making (state-contingent) credit protection payments. This ensures that if the investor defaults, the bank still has access to the credit protection funds, reducing counterparty credit risk. Typically, the asset allocation of the collateral proceeds is determined by the bank, and the investment policy governing these proceeds is part of the negotiations with the investor. The SPV invests the cash proceeds in highly liquid investments such as short-dated government securities, US Treasury bills, or money market. The third-party custodian via the SPV makes principal payments to the CLN investors at maturity or early termination of the CLN.

During the life of the SRT transaction, the SPV makes period interest payments to the CLN investors. The payments are comprised of a spread funded by the credit protection premium paid by the bank plus the investment income generated from the upfront collateral.

In case of a credit event generating losses covered by credit protection, the bank notifies the SPV. In turn, the SPV liquidates a corresponding amount of collateral to make a credit protection payment to the bank. The principal balance of the CLN is written down by the amount of credit losses, transferring the loss to the investors. A credit event is typically triggered by bankruptcy, restructuring, or failure to pay as defined and negotiated by the bank and the protection provider. After the credit event, the SPV continues to pay the investor based on a smaller notional balance. The credit protection payments end after the losses wipe out the mezzanine tranche or at the end of the life of the SRT transaction.[13]

At the maturity of the mezzanine tranche or upon early amortization, the remaining collateral is liquidated after protection payments have been made to the bank. Any remaining proceeds are returned to investors

[12] In Europe, the first loss tranche typically covers one percent of portfolio losses, the mezzanine tranche covers 7 percent of portfolio losses, and the senior tranche covers the remaining losses (see European Systemic Risk Board, May 2025). In the United States, the threshold for the mezzanine tranche for US banks is set to cover 12.5 percent of losses, as under the Simplified Supervisory Formula Approach used in the United States, the attachment point for the retained tranche (mezzanine) is typically set at the point that achieves the optimum level of capital relief for the issuer bank (a 20 percent risk weight). This is commonly 12.5 percent, the point where the underlying loan exposures are subject to a 100 percent risk weighting (corporate exposures, consumer exposures other than first-lien residential mortgages).

[13] Depending on the reference asset, the time to determine a loan's final loss can take months or years. Therefore, SRT structures incorporate the concept of estimated loss. If the realized loss differs from the estimated loss, there is a "true up" that can go from the investor to the SPV/bank or from the bank/SPV to the investor (MFA, October 2024).

as principal redemptions on the CLN. Early amortization can occur if the SRT includes call options for the bank to terminate the securitization before maturity.

Bank Direct-Issued CLNs

The second SRT structure, primarily used in the United States and now more frequently in Europe, is the bank direct-issued CLN. Unlike the SPV CLN, the bank issues the CLN with an embedded CDS to the investor to transfer the credit risk associated with the underlying reference loan pool (Figure 3, panel 2). The embedded CDS specifies the amount of credit protection to which the bank is entitled to, like the credit protection in the SPV CLN structure.

Under the bank direct-issued CLN structure, the bank receives cash proceeds from the CLNs, including the value of the purchased credit protection. The proceeds from the CLN are owned by the bank rather than held as collateral at a third-party institution, which mitigates counterparty risk faced by the bank but generates counterparty risk for investors associated with the bank's creditworthiness. Bank direct-issued CLNs are unsecured obligations of the bank and can become senior unsecured claims against the issuing bank if the bank fails, unless the CLN structure includes specific protections.

The principal and interest payments are based on the performance of the reference pools and are calculated as if a CDS was in place under a 2002 Internal Swaps and Derivatives Association (ISDA) Master Agreement and Schedule between the bank and a hypothetical counterparty. The bank makes periodic payments to the investor, typically the Secured Overnight Financing Rate (SOFR) plus a spread that is equivalent to the premium under a CDS. If losses covered by the credit protection occur, the principal balance of the CLN is written down by a corresponding amount and the bank simply continues to keep the corresponding amount of the proceeds from the CLNs. If the CLNs are not written down, the bank makes principal payments to the investors.

Additional Features of SRT Structures

Other features of some SRT structures include blind reference loan pools, unfunded transactions, and replenishment periods. In a blind reference pool SRT, the bank does not reveal sensitive borrower details to the investor or protection provider, and the investor only has access to high-level characteristics of the reference loan portfolio (such as industry distribution, credit ratings, or geographic exposure). Under this type of structure, investors face higher uncertainty and must rely on the bank's understanding of standards and risk management practices instead of conducting their own loan-level risk analysis.

Anecdotal evidence suggests that European and US GSIBs have issued SRTs with blind reference pools. However, no estimate of the market share of blind pool SRTs is publicly available.[14]

Unfunded SRTs are transactions not secured by financial collateral.[15] The investor (protection provider) does not make any upfront payments to cover potential losses and is only required to compensate the bank if a credit event occurs. The protection provider is considered to have a high enough credit quality to mitigate the counterparty risk and is subject to eligibility criteria in Europe.[16] The protection providers are typically, in Europe, insurance companies, pension funds, or multilateral development banks. The bank originating the SRT is exposed to counterparty credit risk.

[14] See Benitez, McNeely and White (2024).
[15] For details about other SRT structures, please see Gonzalez (2023) and Cadwalader, Wichersham & Taff LLP (2024).
[16] See Article 26e(8)(a) of the EU Securitisation Regulation.

SRTs with a replenishment period allow a bank to add new loans to the loan portfolio as old loans mature, subject to eligibility criteria. Typically, the loans will come from the same portfolio and share the original loan's credit characteristics.[17] The risk for the investor is potential asset quality deterioration of the reference pool, as the likelihood of credit losses could increase from lower asset quality loans being added, or from changes in the risk profile of the reference pool.

Box 1.1 Establishing an SRT Program

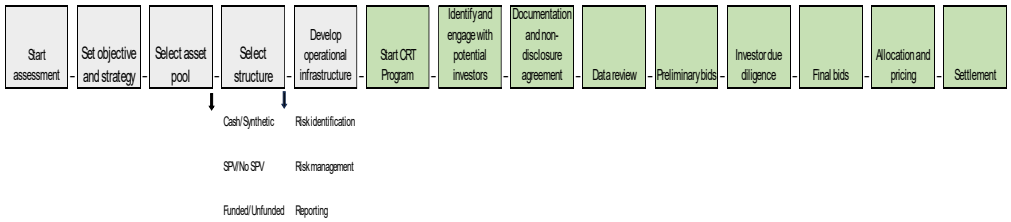
Banks weigh on numerous factors based on their risk profile and strategic objectives before establishing an SRT program to issue SRTs to manage risk and claim capital relief. Establishing an SRT program is a lengthy process. SRTs are complex financial instruments that require sophisticated issuers and investors with securitization experience and the ability to negotiate the terms of the deals and assess all risks associated with the SRT deals.

Banks assess whether the cost of funding the SRT, considering capital relief, is cheaper than other funding available to them. The decision-making process for banks encompasses and it is not limited to:

- Identifying core loan assets as reference loans and assessing investor appeal for these loans
- Assessing the cost of alternative funding available, which may involve selling part of its loan portfolio
- Estimating the cost of different SRT structures
- Estimating potential capital relief (see Estimating Capital Relief sub-section)
- Understanding the regulatory framework in different jurisdictions
- Identifying and maintaining the investor relationship
- Determining the length of the SRT program and ability to continue issuing SRTs
- Having a team with deep experience in securitization and structured finance able to analyze associated risks and support negotiations with investors
- Having adequate risk management frameworks and necessary reporting capabilities to model risks and provide data to investors
- A bank establishes an SRT program to issue SRTs over a specified period. The establishment of an SRT program for a bank could take a few months to implement. Figure 1.1.1 below illustrates a hypothetical process of establishing an SRT program. During the process, banks inform their relevant authorities of their intention of establishing a program and request regulatory approval for issuance as needed. During the negotiation process, documentation is needed to set agreements related to asset pools, collateral, funding arrangements, reporting, and credit default event definitions between the issuer and the investor.

Figure 1.1.1. Hypothetical Example of SRT Process for a Bank

The process of establishing a SRT program requires detailed negotiations between sophisticated issuers and investors



Source: IMF.

[17] See MFA (October 2024).

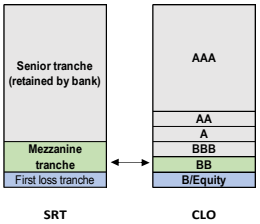
Box 1.2. Comparing High Yield Structured Products

SRT mezzanine tranches and BB-rated collateralized loan obligation (CLO BB) tranches often target high-risk investors by offering attractive yields and diversified exposure to corporate credit (Figure 1.2.1, panel 2). In 2024, CLO issuance reached an estimated record level of $250 billion, of which an estimated $8 billion were CLO BB tranches, compared to estimated protected tranches through SRT of $30 billion (from over $200 billion in reference pools).[1] However, these structured products differ in objectives and structures (Figure 1.2.1, panel 1).

Figure 1.2.1 SRT vs. CLO BB-rated

SRT and CLO BB help redistribute risk

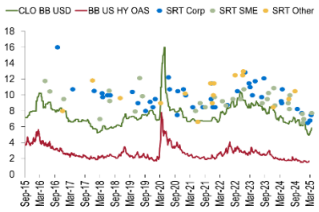
1.Structure



SRTs also called "Reg Cap" offer attractive yields

2.Yields

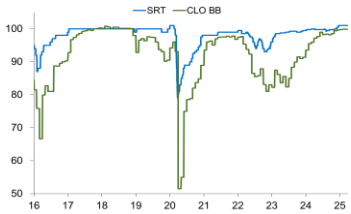
Percent



CLO BB tranches experienced more stress than SRTs during COVID

3.Performance

Index



Sources: Bloomberg LP, Morgan Markets, Seer Capital, and IMF Staff.

Note: Notes: Panel 2: Reflects spreads to the floating rate benchmark of selected new issue regulatory capital relief (Reg Cap) transactions referencing each type of asset (corporate, SME, or other) from June 2015 to March 2025. Panel 3: reflects daily secondary market prices of generic / on the run SRT (Reg Cap transactions) from Seer Capital traders from January 2016 to March 2025 ; CLO BB USD=Primary USD CLO BB spread; BB US HY OAS= US Corporate High Yield Average OAS; Reg Cap Corp=Corporate loans SRT spreads; Reg Cap SME= SME loans SRT spreads; and Reg Cap Other= Other loans SRT spreads.

SRT mezzanine tranches are used by banks as a tool to transfer credit risk synthetically (reference loans remain with the bank), improve balance sheet efficiency, and optimize capital. In contrast, CLO BB tranches are part of a structured credit pool managed by the CLO manager that acquires leveraged loans and designs the securitization structure aiming to generate and maximize returns to investors.

From the perspective of investors, SRT mezzanine tranches are more complex products due to their bespoke nature, limited secondary market liquidity, and higher counterparty credit risk for the investor (particularly for direct bank-issued SRT CLNs since investors are exposed to the creditworthiness of the issuing bank). If the bank experiences financial distress, SRT mezzanine holders may face higher default risk, whereas CLO BB investors benefit from loan diversification and active portfolio management by CLO managers. In addition, CLOs are more liquid, trade more actively in the secondary market, and are subject to a more standardized securitization framework and rating methodology.

CLOs tend to be more transparent than SRTs. While SRT mezzanine tranches are privately negotiated and transparency varies according to the deal structure, CLO BB tranches follow standardized disclosure practices with periodic information on loan performance, tranche structure, and investor distributions. These differences mean that for SRT deals investors need to conduct in-depth due diligence on the bank's loan portfolio, while CLO investors have greater access to market data and rating agency reports, making it easier to price and analyze.

Performance varies, especially during periods of stress. SRT mezzanine tranches performed better than CLO BB tranches during the COVID-19 pandemic. At that time, banks faced high default expectations that impacted pricing and issuing activity for SRT mezzanine tranches. The impact was partially mitigated by regulatory flexibility and capital relief measures that helped banks manage credit exposures.[2] CLO BB tranches—characterized by wider spreads and greater sensitivity to market fluctuations—are more prone to price volatility when credit spreads shift. During periods of market stress, they may also become less liquid than senior tranches due to their lower level of subordination. During the pandemic, CLO BB tranches faced downgrade risks as rating agencies reassessed the

credit quality of the underlying leveraged loans, which benefited by government measures to stabilize the market (Figure 1.2.1, panel 3).

[1]Ahluwalia and Cooke (2024) and Wang (2025).
[2] In the United States, the CARES Act allowed banks to modify loans affected by the pandemic without classifying them as troubled debt restructurings that typically require more capital, giving banks more flexibility in managing credit risk.

II. Regulatory Framework and Capital Relief

Regulatory Requirements

Following the Global Financial Crisis (GFC), a range of regulatory reforms were introduced by the Basel Committee on Banking Supervision (BCBS), the International Organization of Securities Commissions (IOSCO), and other standard setters to address vulnerabilities in the securitization market—namely the misaligned incentives, opacity, and excessive risk-taking that had contributed to systemic instability. Key reforms included:

1. **Higher Capital Requirement**: The Basel III revisions introduced a recalibration of the capital treatment for securitization exposures to better align regulatory capital with the underlying risk. A key feature of the new framework is a more risk-sensitive hierarchy of approaches that reduced previous mechanistic reliance on external credit ratings. Under the revised framework, capital requirements were significantly increased for highly complex, opaque, or low-quality securitizations, addressing shortcomings in the pre-crisis regime that underestimated risk and encouraged regulatory arbitrage.
2. **Risk Retention ("Skin in the Game"):** In 2012, IOSCO recommended that securitization originators retain a portion of the credit risk of the underlying assets to promote stronger alignment of incentives across the securitization value chain. By holding an economic interest in the transaction, originators and investors are encouraged to uphold higher underwriting standards, conduct thorough asset screening, and monitor credit risk more diligently.
3. **Standardization and Transparency:** IOSCO and BCBS also developed criteria for identifying simple, transparent, and comparable (STC) securitizations, which qualify for more favorable capital treatment. These criteria ensure that investors have sufficient information on the underlying assets, transaction structure, and parties involved to facilitate comparison across different products and a better understanding of the associated risks.

These post-GFC regulations led to a shift in the securitization market toward more standardized and transparent structures, while encouraging banks to explore alternative ways to achieve capital relief. In this context, SRT gained prominence. Under the Basel securitization framework, originating banks may exclude securitized exposures from the calculation of risk-weighted assets only if they demonstrate that significant credit risk has been transferred to third parties. The instruments used to transfer credit risk cannot contain hidden structural features that limit the amount of credit risk transferred. For example, a bank must not retain indirect control over the transferred exposures, and the securitization must not include clauses that allow credit quality improvement, increased protection costs, or performance-based triggers. Early termination options are prohibited, except for non-credit-related events such as clean-up calls or regulatory changes that do not weaken risk transfer (CRE40.25).

Furthermore, the due diligence requirement mandates that banks must, on an ongoing basis, maintain a comprehensive understanding of the risks associated with the underlying pool. Securitization transactions that meet the STC criteria can be subject to alternative capital treatment (CRE40.66 to CRE40.165). In the EU, Regulation (EU) 2021/557 extended the Simple, Transparent, and Standardized (STS) framework to include synthetic securitizations, introducing specific criteria. Appendix 2 provides a detailed overview of the regulation of SRT practices across different jurisdictions.

The major investors in SRT transactions—such as credit funds, asset managers, pension funds, and insurers—operate under distinct regulatory frameworks tailored to their roles and risk profiles. Following the GFC, investment funds, including credit funds and hedge funds, were brought under increasing regulatory and supervisory scope in most jurisdictions. Their requirements include liquidity risk management, some leverage and concentration limits, and transparency. However, they are not subject to risk-based capital requirements, as the ultimate risk is borne by end investors. For institutional investors including pension funds and insurers, regulations prioritize long-term stability and the protection of beneficiaries' interests assuming their stable funding. Their capital requirements are often simpler and less risk sensitive than the Basel framework, which incentivizes them to take higher credit risk through SRT transactions.

Estimating Capital Relief and Loss Buffer Benefits from SRT Structures

In this section, we provide examples of SRT transactions across asset classes and geographies to illustrate the potential capital relief and loss buffer benefits for issuing banks. Table 1 compares hypothetical regulatory capital needs for a loan portfolio without a credit risk transfer and with an SRT referencing various asset types to illustrate the risk-weighted asset (RWA) transformation. For example, the regulatory capital requirement for a $100 residential mortgage portfolio without an SRT, assuming a 10.5 percent minimum Tier 1 capital requirement and 50 percent RWA, totals $5.8, and it is significantly higher than the $2.7 that would be required for the same loan pool under an SRT structure.

In an SRT transaction, a bank buys protection for the mezzanine tranche by issuing CLNs to investors. The examples assume that in the United States, the bank retains the first loss and senior tranches, while in Europe, the bank only retains the senior tranche.[18] Under securitization treatment, the senior tranche carries 20 percent RWA, and the first-loss tranche carries 1,250 percent RWA. The RWA for the mezzanine tranche becomes zero because the bank is no longer exposed to the losses from this tranche.

Banks determine the optimal size of these tranches to maximize capital relief. The higher the riskiness of the type of underlying loan portfolio, the larger the mezzanine tranche required to minimize the risk-weight of the senior tranche. The SRT example assumes the thickness (i.e., pool size) of the first loss tranche plus the mezzanine tranche of residential mortgages, corporate/auto, and high-volatility commercial real estate (HVCRE) loans to be 5, 12.5, and 22 percent, respectively. Due to the securitization treatment and credit protection, the SRT results in a lower Tier 1 capital requirement for various loan types that carry different RWAs.

Post-SRT transactions, estimates suggest banks could obtain capital relief of 55 to 80 percent of pre-SRT RWA.[19]

Table 1 also estimates the effective loss buffer. For a loan pool without an SRT, this equals the capital requirement (Row I). For a reference pool with an SRT, it includes the capital requirement (Row Y) plus credit protection funds from external investors in a funded structure (Row Z), assuming part of the credit risk is effectively transferred to investors. As discussed in this example, if there are no SRT costs and no clawbacks on loan loss reserves, the SRT structure can temporarily increase the effective loss buffer for

[18] See Standard & Poor's Global (2024).
[19] "The Economics of Synthetic Risk Transfers," Bank Policy Institute; Cadwalader KPMG and TWK Advisors (2024); Santander (2023); and IMF staff calculations.

the duration of the deal (Rows AA and CC). This example, however, represents an upper bound, as the buffer will decline by the annual cost of the CLN (Row JJ). In addition, as explained in Appendix 3, investor protection is not equivalent to equity capital because investors can finance their CLNs through leverage.

Table 1. Economics of Different SRT Issuances

Capital Benefit of SRT Issuance		United States			Europe
Reference		Residential Mortgage Loans	Corporate and Auto Loans	High Volatility Commercial Real Estate	Corporate Loans
Without SRT Structure					
A	Notional Value	100	100	100	100
B	RWA ratio (%)	50%	100%	150%	55%
C=A*B	RWA (US$ m)	50	100	150	55
D	T1 Ratio Requirement (%)	10.5%	10.5%	10.5%	10.5%
E	Allowance for Credit Losses (%)	0.5%	1.5%	5.0%	1.5%
F=A*E	Allowance for Credit Losses (US$ m)	0.5	1.5	5.0	1.5
G=C*D+F	**Required Capital (US$ m)**	**5.8**	**12.0**	**20.8**	**7.3**
	Loss Buffer				
H	Loss Absorption from External Investors (US$ m)	0.0	0.0	0.0	0.0
I=G+H	**Effective Loss Buffer from Required Capital (US$ m)**	**5.8**	**12.0**	**20.8**	**7.3**
With SRT structure					
J	First-Loss Tranche (%)	0.5%	1.5%	5.0%	0.0%
K=A*J	First-Loss Tranche (US$ m)	0.5	1.5	5	0
L	RWA ratio (%)	1250%	1250%	1250%	1250%
M=K*L	RWA (US$ m)	6.3	18.8	62.5	0.0
N	Mezzanine Tranche (%)	4.5%	11%	17.0%	8.5%
O=A*N	Mezzanine Tranche (US$ m)	4.5	11	17	8.5
P	RWA ratio (%)	0.0%	0.0%	0.0%	0.0%
Q=N*P	RWA (US$ m)	0.0	0.0	0.0	0.0
R	Senior Tranche (%)	95.0%	87.5%	78.0%	91.5%
S=A*R	Senior Tranche (US$ m)	95.0	87.5	78.0	91.5
T	RWA ratio (%)	20.0%	20.0%	20.0%	15.0%
U=S*T	RWA (US$ m)	19.0	17.5	15.6	13.7
V=M+Q+U	Total SRT RWA (US$ m)	25.3	36.3	78.1	13.7
W=V/A	SRT RWA Ratio (%)	25.3%	36.3%	78.1%	13.7%
X=D	T1 Ratio Requirement (%)	10.5%	10.5%	10.5%	10.5%
Y=V*X	**Required Capital (US$ m)**	**2.7**	**3.8**	**8.2**	**1.4**
	Effective Loss Buffer (Assuming no SRT costs)				
Z=O	Loss Absorption from External Investors/Mezzanine Tranche (US$ m)	4.5	11	17	8.5
AA=Y+Z	**Effective Loss Buffer (US$ m)**	**7.2**	**14.8**	**25.2**	**9.9**
Estimating Benefits from SRT Structure (Assuming no SRT costs)					
BB=G-Y	Capital relief for Bank (US$ m)	3.1	8.2	12.5	5.8
CC=BB/G	**Capital relief (%)**	**53.9%**	**68.3%**	**60.5%**	**80.2%**
DD=AA-I	Increase in Effective Loss Buffer (US$ m)	1.4	2.8	4.5	2.7
CC=DD/I	**Increase in Effective Loss Buffer (%)**	**24%**	**23%**	**21%**	**37%**
Estimating Cost of Protection*					
N	Notional of Mezzanine Tranche	4.5	11.0	17.0	8.5
EE	Assumed cost of capital for SRT (%)	8.2	8.5	13.2	8.5
FF	SOFR / €STR (%)	4.35	4.35	4.35	2.45
GG	Management costs (bps)	10	10	10	10
HH=EE-FF-GG	Implied CLN Spread over Benchmark Rate (bps)	383	413	886	605
II = N*(FF+GG+HH)	Implied yearly CLN cost of protection to maturity	-0.2	-0.5	-1.5	-0.5
JJ= DD-HH	Increase in Effective Loss Buffer (US$ m)	1.2	2.3	2.9	2.1
KK= JJ/ I	**Increase in Effective Loss Buffer (%)**	**21%**	**19%**	**14%**	**29%**

Sources: "The Economics of Synthetic Risk Transfers," Bank Policy Institute "Credit Risk Transfers (CRTs) A Handbook for U.S. Banks;" Cadwalader KPMG and TWK Advisors, Santander (2023) and IMF staff calculations.

Notes: The estimate does not assume downward adjustment in the allowance for credit losses from the structural protection from SRTs that could result in lower provision expenses and higher net income and retained earnings for the bank. *Assumed cost of capital for SRT (EE) is based on "Bank Strategies for Risk Transfer and Capital Relief (Santander 2023). HVCRE has been proxied with the cost of capital for SRT of a C&I Loan. Costs can vary significantly depending on deal specifics. In addition, the cost of protection can be scaled up CLN years to maturity. Benefits and Risks of SRTs

III. Benefits and Risks of SRTs

Benefits of SRTs

SRT transactions offer many benefits to issuing banks, investors, and the broader economy.

From a bank perspective, SRTs are a flexible tool to manage capital requirements, reduce RWA, and obtain capital relief. SRTs:

- Allow banks to claim capital relief, subject to regulatory approval, which could increase banks' lending capacity. Although public disclosure of capital relief is limited, a few banks have reported capital relief ranging from 15 bps to 28 bps of their Common Equity Tier 1 capital (CET1) ratio in 2024.
- Help banks manage credit risk by reducing sector, single-name, and geographic loan concentrations through the transfer of credit risk to investors.
- Allow banks to maintain the customer relationships and avoid crystalizing potential mark-to-market losses on the reference portfolio since the bank does not sell the underlying loans.
- Directly increase liquidity for direct bank-issued CLN structures since the bank keeps the cash proceeds and this increases funding.
- Reward equity and bond holders by funding stock repurchases, dividends, and interest payments, or by reducing subordinated debt, depending upon the bank's capital management strategy.

From an investor perspective, SRTs:

- Offer access to loan categories that may not be easily accessible through public markets or direct lending.
- Offer attractive yields compared to other asset classes (Box 1.2).
- Offer shorter durations when underlying loans have longer tenors (see Risk and Vulnerabilities section for a discussion of rollover risks).
- Offer the ability to customize and negotiate risk exposure across creditors or industries, providing increased flexibility.

For the broader economy, securitization, including SRTs:

- Supports a more efficient risk allocation relative to 100 percent risk retention by the originating banks.
- Creates conditions for additional bank lending, thereby supporting growth.

Vulnerabilities and Risks

Risks to financial stability posed by SRTs are currently contained as post-GFC regulatory reforms strengthened the resilience of securitization markets, and the overall size of the SRT market remains modest (Figure 1, panel 3). However, their rapid growth could create significant vulnerabilities that warrant close monitoring. These include greater interconnectedness, leverage and liquidity mismatches, opacity, maturity mismatches, investor concentration, complexity, and the risk of ineffective risk transfer or

weaker loan underwriting standards. Transferring risk to less regulated investors could also amplify system-wide risks.

1) Interconnectedness

SRTs can increase interconnectedness, as investors often borrow from banks and other financial institutions to enhance returns.[20] In Europe for instance, the ESRB reports that the risk transferred out of the banking system through SRTs can partially circle back to the banking sector, as SRT issuer banks are also providing financing to investors. News reports also suggest that Japanese and European banks are active in lending to SRT buyers.[21]

Interconnectedness between banks and investors also arises from unfunded SRT structures, whereby the investor does not provide the full potential amount to cover credit losses upfront. This exposes the bank to counterparty credit risk and could lead to bank losses if the investor is unable to provide protection after a credit event occurs. While the market share of unfunded SRT appears to remain modest, data gap challenges the ability of supervisors and market participants to monitor risks and exposures in this market segment.

2) Leverage and Liquidity Mismatches

SRTs allow banks to reduce their risk-based capital requirements while keeping the underlying pool of loans on their balance sheets, thereby increasing leverage. Furthermore, SRTs can increase the overall leverage of the financial system by transferring credit risk originated by banks to less regulated financial institutions, such as hedge funds, which have more freedom to use leverage. When a few SRT investors—often with similar strategies—use leverage to build large, concentrated exposures (see subsection on maturity mismatches and investor concentration), the risk of herd behavior rises. For example, investors may react in unison to interest rate changes, amplifying market shocks. Financial stability risks emerge if leveraged entities are forced to unwind positions in illiquid markets, where sales cannot be absorbed smoothly. Disruptions in one market could spill over to others, including across borders.

Credit funds, which include hedge funds and asset managers, are the largest investors in SRTs, with over half of synthetic securitization trade flows between 2016 and 2024 (Figure 4, panel 1).[22] Hedge funds and some credit funds holding SRT CLNs use leverage, which is mainly sourced from banks. Exposures of these funds to SRT CLNs remain unknown. In Europe, the ESRB reports that in some cases, leverage is provided by the bank originating the SRT. However, available data is insufficient to identify this practice. The ESRB notes that if a bank originating the SRT provides financing for the protection seller to subscribe to the SRT CLN, it is effectively funding its own capital relief, undermining capital adequacy. This practice could prompt banking supervisors to make the transaction ineligible for SRT status in Europe.[23]

[20] In Europe, the regulatory framework and more mature SRT market create less demand for SRT financing compared to the United States. In Europe, the SRT protected tranche represent a smaller slice of the risk of the securitization exposure (0–7 percent) and the smaller size represents less protection for senior tranches. Consequently, investors demand higher returns to compensate for the increased risk. In the United States, the SRT protected tranche is thicker (0–12.5 percent) and carries a lower spread motivating investors to use leverage financing to increase returns to meet desired risk tolerance levels.

[21] ESRB (May 2025) also highlights the need for more data to be to establish a “causal link” between the loans extended by the issuer SRT bank and the protection seller (investor); and Arroyo (2024).

[22] According to the IACPM Synthetic Securitization Global Bank Data Report 2016–2024, International Association of Credit Portfolio Managers (IACPM).

[23] ESRB (May 2025).

Although no public data is available on the holders of SRT CLNs, aggregate hedge fund exposure to credit derivatives has increased in recent years in parallel with the growth of the SRT market (Figure 4, panel 2). While SRTs remain a small component of their credit derivative exposure, these transactions have experienced significant growth, consistent with the sharp increase in the underlying pool size of SRTs in Europe and the United States (see Appendix 3).

In addition to concerns about leverage, some SRT investors are also exposed to liquidity mismatches. These include both hedge funds (see Appendix 3) and open-ended investment vehicles. CLNs are illiquid instruments, exposing open-ended investment vehicles to liquidity mismatches. In particular, the European Systemic Risk Board estimates that a large portion of Euro-area investors in CLNs are open-ended investment vehicles.[24]

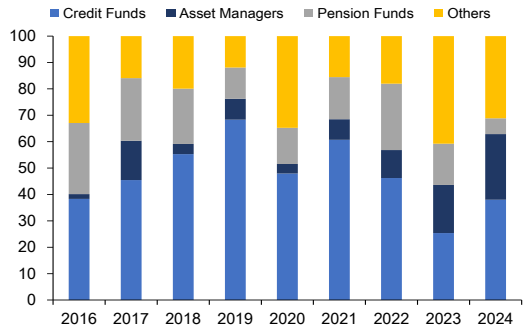
3) Opacity

While there is a flow of information shared between the SRT issuer and the investor, the lack of transparency and limited disclosure requirements challenge the monitoring of system-wide interconnectedness and leverage risks generated by SRTs. Recent actions by the Federal Reserve Board (FRB) and ECB suggest that regulators may not have a full view of SRT leverage providers, SRT financing exposures, and leverage risk management practices. The FRB and ECB have announced reviews of SRT leverage practices and requested information from several SRT issuers on the type of requirements banks impose on investors who use leverage to buy their SRT deals. News reports that large banks in Europe and the United States had requested information about leveraged SRT investors also suggest that banks may not have full visibility into their borrower's total leverage exposure.[25] In a July 2025 report, the BCBS highlighted the need for granular, timely, and high-frequency data to better understand and monitor linkages between banks and nonbank financial intermediaries, and to assess the sensitivity of the exposures to adverse market conditions.[26]

Figure 4. Hedge Fund Interconnectedness

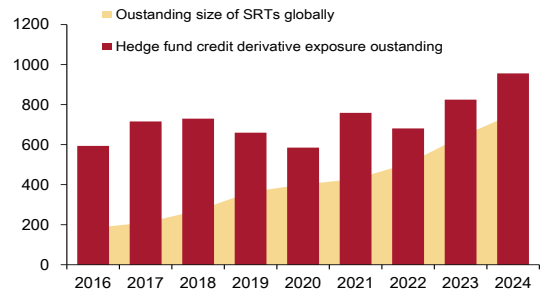
1. Investor Breakdown

Percent of Synthetic Securitization Trade Flow



2. SRTs and Hedge Fund's Credit Derivative Exposures Outstanding

Billions of U.S. dollars



Sources: IACPM Synthetic Securitization Global Bank Data Report 2016–2024, International Association of Credit Portfolio Managers (IACPM). https://iacpm.org/, Securities Exchange Commission, Structured Credit Investor, and IMF Staff calculations. Panel 1 is based on data from IACPM Synthetic Securitization Global Bank Data Report 2016–2024. Panel 2 calculates the outstanding size of SRTs using a 3-year moving average of annual issuance, based on data from the International Association of Credit Portfolio Managers.

[24] ESRB (2025).
[25] Arroyo (November 2024) and Duarte (December 2024); and ECB (February 2025).
[26] BCBS (July 2025).

4) Maturity Mismatches and Investor Concentration

The capital benefit that banks receive from SRTs has a limited lifespan linked to the maturity of the SRT structure, which is typically shorter than the underlying portfolio. The average maturity for SRT deals ranges from 3 to 5 years, with longer maturity depending on the reference loan pool. Banks offering SRTs expect to create new SRT structures once the previous ones mature. High dependence on SRTs as a capital management tool or a sudden freeze in the SRT market during times of market stress could leave banks vulnerable. An adverse shock will raise credit risks and deter SRT investors from rolling over. Banks might lose credit protection at a time of heightened need, and capital requirements may jump procyclically.[27] Banks may find it difficult to buy credit protection for SRTs if investors suddenly withdraw from the market or demand higher yields to compensate for additional risk. Nonbank financial institutions are known for being significantly more procyclical than banks, contracting credit provision more sharply during times of stress.[28] Banks may also face higher funding costs and liquidity pressures if SRTs need to be replaced by costlier funding structures, potentially curtailing lending and impacting bank profitability. For instance, SRT issuance declined by an estimated 30 percent in 2020 compared to 2019 (see Figure 1, panel 2), as banks reduced SRT issuance during the COVID-19 pandemic due to economic uncertainty and weaker investor appetite.

Concentration among SRT investors and SRT issuing banks exacerbates rollover risk. The investor base is concentrated as SRT deals require sophisticated investors to analyze risks and negotiate the terms of the structures. According to a survey, the single largest investor in SRTs in Europe holds 31 percent outstanding exposures, the top three investors 49 percent, and the top ten investors 76 percent. Similar concentration exists among SRT issuers. In Europe, the single largest SRT issuing bank accounts for 22 percent, the top three banks for 53 percent, and the top 10 banks for 95 percent of the market. Large French, Spanish, and German banks accounted for about two-thirds of SRT exposures originated in the EU in the second quarter of 2024 (see Appendix 1).[29]

5) Complexity

Despite typically meeting the criteria for simple and comparable securitizations, SRTs remain complex instruments that generate substantial legal challenges and heighten operational and model risks. Some issuers with limited experience in securitized markets may not have the adequate infrastructure and expertise to design contracts that provide the expected credit protection and monitor potential risks during the life of the transaction.

Poorly structured SRTs may not provide the expected credit protection. Lack of adequate risk management and reporting infrastructure, limited experience in securitized markets and overreliance on quantitative models to price credit risk can lead to underestimation of tail risks by banks and investors. To mitigate this risk, bank regulators have called for adequate risk management and reporting of securitization activities, including SRTs. In 2025, the ECB called for banks to integrate SRT-related risks into their internal capital planning and risk management processes, which also include stress testing.[30]

[27] See “Scenario 3: NBFIs stop taking risks from banks,” BCBS (July 2025).

[28] See Aldasoro et al (2023) and Fleckenstein et al (2025).

[29] Based on a survey of 14 European banks. See Moody’s Ratings (May 2025) and ESRB (May 2025).

[30] See, European Central Bank (2025). https://www.bankingsupervision.europa.eu/press/supervisory-newsletters/newsletter/2025/html/ssm.nl250219_1.en.html

6) Potential for Ineffective Risk Transfer and Lower Origination Standards

If credit risk transfer is ineffective, a bank may appear to be reducing RWAs and freeing up capital, but in fact is overstating its capital ratio, misleading regulators and investors and eroding market confidence. Ineffective risk transfers could arise from a bank providing financing to the same investor that is supposed to absorb its credit risk; or thinly capitalized or less regulated investors lacking sufficient capital or liquidity to cover losses (when the structure is not prefunded).

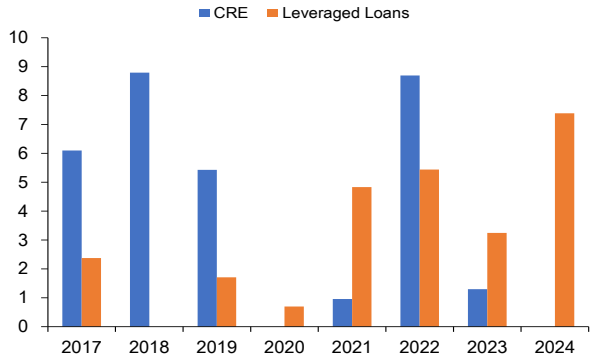
Loan origination standards could also potentially decline, especially for SRT blind pool deals and SRTs with riskier underlying loans. While the post-GFC securitization reforms (see previous section) and detailed loan-level screening by investors continue to support strong underwriting standards, increased competition for new deals could lead to weaker practices. The risk is exacerbated in privately negotiated SRT blind pool deals, as investors cannot independently assess credit risk. It could also increase if SRTs expand significantly into riskier loan categories. For instance, leveraged loans, while still a small component of the pool of underlying assets, have increased their participation (Figure 5).

Figure 5. Characteristics of Underlying Loans

Leveraged loans have increased over the past five years

1. Underlying Pools: CRE and Leverage Loans

Billions of U.S. dollars



Source: Structured Credit Investor.

IV. Measures to Mitigate Potential Risks

With appropriate safeguards, SRTs can be an effective tool for banks to manage risks and capital requirements, improving their capacity to diversify exposures and lend. While current risks to financial stability are contained, the rapid growth of the sector and the potential vulnerabilities that may arise require financial sector supervisors to continue monitoring transactions closely to ensure that risks are effectively transferred, incentives for sound origination standards are preserved, financial system-wide leverage is contained, and the transactions are sufficiently transparent to foster market discipline. Strengthening limited data disclosure and coordination of supervisory efforts are paramount, as outlined in chapter 1 of the October 2024 Global Financial Stability Report.

Safeguarding financial stability requires enhanced monitoring of effective risk transfer, investor leverage, and blind pool opacity. These activities are more effective when they are integrated into existing supervisory tools. SRT issuer banks are also providing financing to SRT investors, which effectively bring the transferred risks back into the banking system; and the issue is compounded using blind pools that may mask credit risk. In Europe and the United States, authorities have taken initial steps to assess NBFI-related risk into supervisory frameworks; these supervisory initiatives could be extended to also assess the resilience of SRT investors and the impact of a sudden withdrawal of SRT investors, a sudden spike in margin calls on leveraged SRT exposures, and interconnectedness with banks.[31] Requiring banks to integrate SRT-related risks into their internal processes and governance, would ensure continuous monitoring and reporting of counterparties. Mitigating risks from SRTs also requires monitoring of market practices (such as level of funding, maturity and maturity mismatch between the underlying reference pool and the SRT, leverage, amortization of CLNs, and credit quality of guarantees) by bank supervisors and processes to ensure that regulatory capital is reduced only and to the extent that the credit risks have been transferred fully even in stressed conditions.

Enhanced disclosure is important for markets to exercise discipline and improved reporting is essential for authorities to monitor risks. Greater information disclosure may help market participants track SRT market trends and identify exposure and leverage concentrations. Strengthening data availability and transparency is important to ensure robust underwriting practices and overall soundness of the SRTs. While we do not see clear evidence of such deterioration yet, blind pool deals could trigger and exacerbate deterioration of credit underwriting standards. Greater disclosure and reporting in SRT deals, for both investors and supervisors, would allow them to monitor the underwriting practices, including the default risk of the underlying pools of loans and other structural features of SRT transactions. There are significant gaps in data availability necessary for authorities to monitor interconnectedness and leverage and related financial stability risks in an effective and timely manner. For example, some of the existing reported SRT exposure amounts from Pillar 3 disclosures are not sufficiently granular or detailed for authorities to identify total exposure size, interconnectedness, or leverage concentration. More reporting of information is needed to assess i) whether the risks are adequately managed, ii) the potential impact of increased use of leverage financing by investors, iii) risks from the expansion to potentially riskier asset

[31] See, ECB (August 2025), and Federal Reserve Board (June 2025).

types such as leverage loans and CRE, and iv) the performance of SRTs, originators, and investors under stress conditions.

Effective international cooperation is paramount to improving cross-border and cross-sectoral understanding, identification, and mitigation of financial risks created by system-wide interconnectedness and leverage. Different regulatory approaches across borders and sectors highlight the critical need for supervisory cooperation to ensure that the risks transferred in SRT transactions are thoroughly assessed, thereby preventing the buildup of systemic vulnerabilities. Improved data sharing arrangements and a more harmonized regulatory and supervisory approach across the sectors might be needed to reduce excessive regulatory arbitrage. It would be useful for the relevant standard setting bodies to analyze regulatory arbitrage opportunities and address those if material.

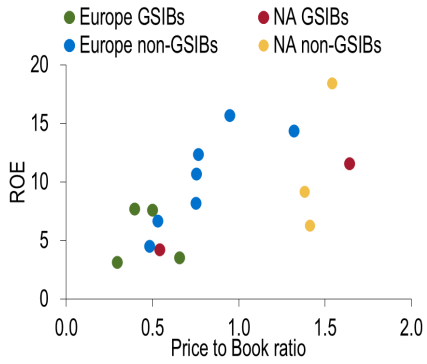
Appendix 1: Additional SRT Market Trends

European and U.K. GSIBs have been the predominant SRT issuers since inception. It has been more expensive and dilutive for these banks to raise equity capital due to their lower return on equity (ROE) and low price-to-book ratio compared to banks in the United States (Figure A.1, panel 1). In recent years, the composition of SRT issuers has shifted to include more non-GSIBs in Europe and North America. Between 2022 and 2024, there were an average of 40 banks issuing SRTs. In 2023, these banks ranged in size in Europe (total assets between $50 billion and $300 billion) and in the United States (below $100 billion). Higher costs of equity for non-GSIBs in Europe compared to non-GSIBs in the United States, appeared to contribute to the demand for SRTs due to their capital optimization benefits, especially during the periods of higher SRT issuance (2022–2023) (Figure A.1, panel 2). GSIBs with higher cost of equity tend to have greater SRT exposure. This positive correlation between banks retained SRT exposure and their cost of equity shows that SRTs offered a more attractive alternative for managing capital requirements (Figure A.1, panel 3). Lower CET1 ratios for non-GSIBs entrants in the U.S. compared to European non-GSIBs in 2023; and compared to 2022, potentially reflects the preference for SRTs to boost capital, likely to meet higher regulatory capital requirements in anticipation to proposed changes in regulation.

Figure A.1. Europe vs. North America SRT in 2023

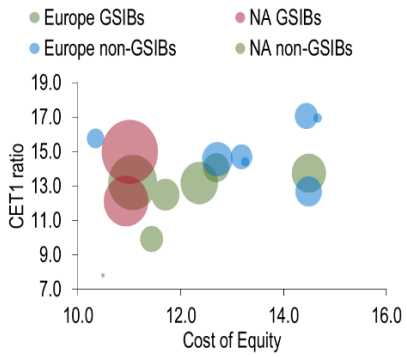
1. Return on Equity vs. PB ratio for Banks

Percent



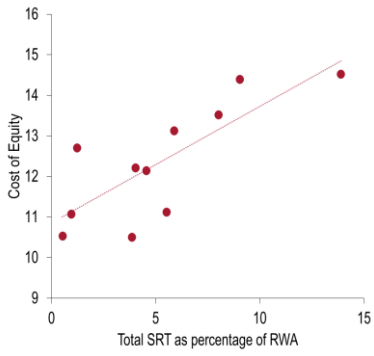
2. CET1 ratio vs. Cost of Equity for

Percent



3.Cost of Equity vs. SRT exposure for GSIBs

Percent



Sources: Bloomberg LP, Basel III, Pillar 3 disclosures and IMF staff estimates.

Notes: Panel 1, data for selected SRT issuers in 2023 in Europe and North America. Panel 2, the size of bubble represents the total assets of each bank, ranging from $17 billion to $3.8 trillion, cost of equity and CET1 ratio for banks issuing SRTs in Europe and the United States in 2023. Panel 3 shows total SRT retained SRT exposure as reported in Basel III Pillar 3 reports as of 2Q24. CET1 = Common Equity Tier Capital ratio; GSIB= Global Systemically Important Bank; NA= North America; ROE = Return on equity.

Appendix 2: Regulatory Treatment of SRTs Across Jurisdictions

After the GFC, enhanced regulatory frameworks have led to more transparent and well-regulated financial instruments. Compared to pre-crisis securitization, SRTs provide an improved risk transfer and risk-sharing mechanism within a controlled framework. This is made possible by continuously evolving regulatory oversight.

In the European Union (EU), the introduction of SRT in the Capital Requirements Regulation (CRR) Articles 243 and 244 in 2013 outline the conditions for recognizing SRTs in traditional and synthetic securitization transactions to allow the originator institution to reduce the capital requirements associated with the underlying loan portfolio. This requires a genuine transfer of significant credit risk to third parties. For example, the bank must retain no more than 50 percent of the risk-weighted exposure amounts (RWEA) of mezzanine tranches or no more than 20 percent of the riskiest positions—those subject to deduction from Common Equity Tier 1 capital or a 1250 percent risk weight. As an alternative, the CRR also allows national competent authorities to grant SRT permissions on a case-by-case basis, provided that the reduction of own funds requirements of the originator institution reflects a commensurate transfer of credit risk to third parties.[32]

The regulation of SRTs outside the EU reflects similar approaches (Table A.2). In the United States, the framework for securitization and capital relief is primarily governed by Regulation Q under the Code of Federal Regulation, along with the risk retention rules mandated by the Dodd-Frank Act. On September 28, 2023, the Federal Reserve issued guidance through an FAQ document on Regulation Q, effectively endorsing the capital relief benefits of SRT transactions. This marked a significant shift, providing a regulatory green light for SRTs and sparking renewed interest and growth in the U.S. SRT market.

In the United Kingdom, the SRT framework closely mirrors the EU's, due to its adoption of the CRR prior to Brexit. Post-Brexit, the U.K. Prudential Regulation Authority (PRA) has begun adapting the framework to reflect the specific characteristics and needs of the U.K. financial market. With this update, the PRA provided explicit permission for banks to use unfunded credit protection in SRTs, where credit protection is provided by insurers through contracts or guarantees rather than paid-in collateral. These structures are classified as “complex features” that require discussion with the regulator but not pre-approval. [33]

Table A.2 provides a high-level comparison of SRT regulation for the United States and the European Union.

Other jurisdictions that have developed supplementary supervisory frameworks for SRTs include Germany, Luxembourg, and Italy. The wide-ranging manner in which supervisors have implemented SRT regulations world-wide has raised concerns about inconsistent practices, as noted by the Basel

[32] Various papers and guidelines have been issued to enhance the CRR framework on SRT, including the EBA's 2014 Guidelines for assessing SRT transactions, the 2017 discussion paper and 2020 amendments aimed at improving supervisory criteria for specific structural features of SRT transactions.
[33] Supervisory Statement 9/13 “Securitisation—Significant Risk Transfer” (Bank of England, July 2025) outlines the PRA’s expectations for SRT transactions, including effective risk transfer, notification requirements, and capital relief calculation.

Standards Group (BSG). To mitigate these discrepancies, the EU tasked the European Banking Authority (EBA) with monitoring member states' practices and issuing SRT guidelines.

Table A.2. Regulatory Comparison of Requirements for SRT Deal to Obtain Capital Relief Under National Regulation

United States	EU
• Require the use of collateral, eligible guarantees, or eligible credit derivatives to mitigate risk. • No termination of protection; no credit enhancement; and no increase in the cost of protection or yield payable due to deterioration in the credit quality of the underlying exposures/assets. • Directly issued credit-linked notes are not recognized as synthetic securitizations and require a Federal Reserve reservation of authority to review specific transactions. • Insurance companies are not considered eligible guarantors for providing credit protection to banks.	• Significant risk transfer demonstrated through a quantitative SRT test or with permission from national competent authorities. • The securitization documentation reflects the economic substance of the transaction. • Credit protection must satisfy the following conditions: No termination of protection; no credit enhancement; no increase in the cost of protection or yield payable; no materiality thresholds that prevent credit protection from being triggered if a credit event occurs. • A legal opinion is provided confirming that credit protection is enforceable in all relevant jurisdictions. • The documents specify arm’s-lengths condition between the bank and the investor.

Source: IMF staff.

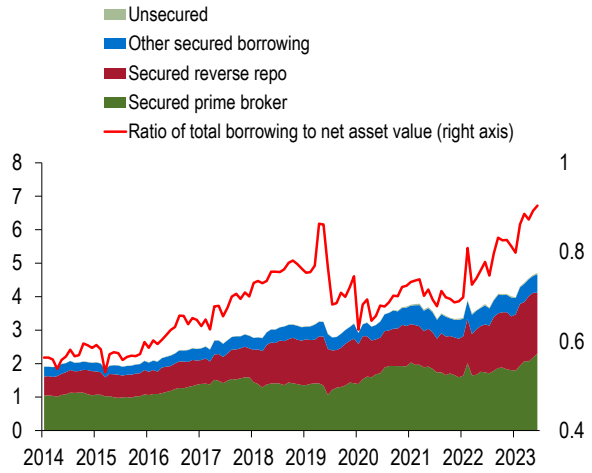
Appendix 3. SRTs and Hedge Funds Vulnerabilities

Hedge fund borrowing—a form of balance sheet leverage—has risen sharply, with the ratio of total borrowing to net asset value reaching record highs (Figure A.3). Much of this leverage is related to other trading strategies, particularly the U.S. Treasury market basis trade.[34] However, a small but fast-growing portion of this leverage may be used to amplify the returns of SRT investments, particularly in the United States, where tougher requirements compared to European banks have reportedly led to a difference in how the SRT deals are structured. The resulting lower coupons could be driving investors to use leverage on U.S. trades as they attempt to generate yields comparable to the double-digit returns available on similar investments in Europe.[35]

Figure A.3. Hedge Fund Leverage and Liquidity Mismatches

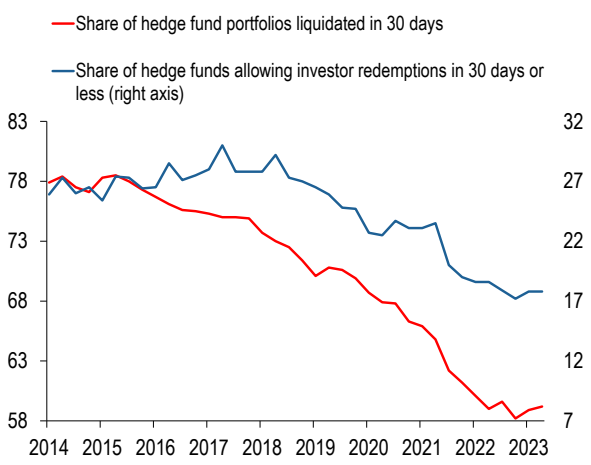
1. Hedge Fund Borrowing by Source

Billions of U.S. dollars



2. Hedge Fund Liquidity Mismatches

Percent



Sources: Securities Exchange Commission, and IMF Staff calculations. Note: The calculations are using data from the Securities Exchange Commission. About two thirds of the hedge funds in the sample are domiciled outside of the United States. This is a representative sample of hedge funds globally with total assets under management exceeding $5 trillion, versus a $8.5 trillion estimate in the 2024 Global Monitoring Report on Non-Bank Financial Intermediation of the Financial Stability Board. This calculation excludes any derivative exposures that can have embedded leverage. Repo = repurchase agreements

The leverage on the CLNs often comes in the form of repurchase agreements, which account for a growing share of hedge funds' overall borrowing (Figure A.3). Although the risk management systems of the broker dealer arms of banks that provide leverage to the investors in CLNs typically examine their counterparties' leverage, individual broker-dealers often do not have full visibility into their clients' total exposure. As a result, haircuts and other lending conditions can be less effective in constraining overall leverage. These issues could be more prevalent in the opaque and illiquid SRT market, where there are additional concerns about the mismatch between shorter-term repurchase agreements and longer dated,

[34] This trade seeks to gain arbitrage profits by capturing the price difference, or basis, between futures and comparable Treasury securities, with long positions in Treasuries financed by borrowing in repo markets. See Chapter 1 of the April 2024 *Global Financial Stability Report*.
[35] See Risk.Net (2024).

less liquid CLNs. A spike in margin calls on these repurchase agreements could lead to spillovers into other, more liquid markets as hedge fund investors sell other assets to raise liquidity.[36]

Hedge funds are better protected than other commingled investment vehicles—including regulated investment funds—when facing investor redemption pressure due to stricter liquidity terms and the more active use of investor gates. However, hedge fund portfolios have become increasingly illiquid in aggregate. While they have strengthened the liquidity terms offered to investors, their liquidity mismatches have worsened, with the estimated share of hedge fund portfolios that could be liquidated in less than 30 days falling sharply (Figure A.3). Whilst still small, the increasing investment in less liquid credit derivative instruments, including CLNs, may have contributed to the deterioration in the liquidity mismatches of the more credit-focused hedge funds.

[36] Such spike in margin calls could be triggered by concerns about the valuation of the underlying securities of a SRT following a sharp increase of defaults for example.

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