Strengthening Financial Stability through Insurance-based Credit Risk Transfer

The increasing and stabilising role of (re)insurance companies in providing credit protection; an analysis across key jurisdictions

Ian Bell[1]
PCS

Michael Bennett
Arch Insurance (EU) dac

Georges Duponcheele
Munich RE

Tamar Joulia-Paris
IACPM

Véronique Ormezzano
VYGE Consulting

This version[2]: 2nd May 2025

Abstract

Highly regulated, well-capitalised and well-diversified (re)insurers strengthen financial stability through insurance-based credit risk transfer. This transfer reduces systemic risk in the banking sector and increases risk diversification in the insurance sector. The degree of regulatory recognition of risk transfer varies by jurisdiction, with regulators in the US, EU and UK, having different approaches and stances on (re)insurer participation. Regulatory developments and consultations are underway in those jurisdictions with potential reforms aimed at increasing (re)insurer involvement in credit risk transfer. This paper analyses how well this participation works in different countries and regions, and what rules help or hinder the transfer of risk between banks and (re)insurers. For example, in the EU's case, the SRT framework helps, but the STS collateralisation criterion hinders.

[1] **Ian Bell** is CEO of Prime Collateralised Securities (PCS) for the EU and the UK and heads the PCS initiative. **Michael Bennett** is Chief Underwriting Officer – Mortgage Division of Arch Insurance (EU) dac, a wholly owned subsidiary of Arch Capital Group Ltd. **Dr. Georges Duponcheele** is Senior Credit Portfolio Manager at Great Lakes Insurance SE (part of Munich RE) and teaches the Securitisation module for the Executive Master in Asset Management from University Paris-Dauphine PSL and Ensae Paris in partnership with Lefebvre Dalloz; he has co-written numerous papers on the Basel and European securitisation frameworks. **Tamar Joulia-Paris** is Senior Advisor to the International Association of Credit Portfolio Manager (IACPM), where she is engaged in research and regulatory advocacy on credit risk transfer solutions, and teaches enterprise risk and sustainability. **Véronique Ormezzano** is an independent expert in financial regulation, Director of VYGE Consulting, Chair of the European Financial Regulation Committee and Co-Chair of the Securitisation Working Group of Paris Europlace, Vice-Chair of the Finance Committee of "Business at OECD", and Chair of the Paris-based thinktank "Cercle de la Regulation et de la Supervision Financière".

All authors can be contacted via LinkedIn. Any errors are ours.

[2] The authors give particular thanks to Raffaela Baechler, Alexander Batchvarov, Jennifer Bearden, Matthew Bisanz, Peter Boddenberg, Jörg Brenneisen, Andrew E. Bryan, Patrick Cogan, Laurent Garnier, Aniket Gulhane, Michael Heckl, Jérémy Hermant, Andrea Itri, Sara Millard, Ruairi Neville, Rainer Roczen, Jamie Row, Kerstin Schaepersmann, Laurence Schultz, Stephan Tilke, Ansgar West, Harald Wieser and Kirk Willison for their support, their contribution, their numerous and helpful comments. The views expressed are the authors' own and not necessarily those of their firms nor of those with whom the authors had discussions or their firms.

Executive Summary

This paper shows how highly regulated, well-capitalised and well-diversified (re)insurers increase the stability of the financial system through the mechanism of insurance-based credit risk transfer.

The transfer of credit risk from the banking to the (re)insurance sector has a clear positive effect on financial stability as it allows:

1) systemic risk to reduce in the banking sector, by allocating potential losses outside the sector, thus reducing the probability of bank failures, and potential need for state intervention involving the use of taxpayers' money; the non-life (re)insurance industry is large, solid and prudentially regulated, i.e., stable.
2) increasing diversification of risk on (re)insurers' balance-sheets, since the credit risk transferred is largely uncorrelated with other non-life claims carried by insurance companies. And, contrary to the banking industry, multiline insurers' exposure to credit risk remains marginal.

However, the degree to which the risk absorbing capacity of (re)insurers is put at work is jurisdiction-dependent and based on the views of local regulators.

In the United States, the Federal Housing Finance Agency (FHFA) is the regulator for the housing GSEs (Fannie Mae and Freddie Mac), both under "conservatorship" since the Global Financial Crisis. FHFA has the longest history in developing and growing an active (re)insurance capacity, to effect a transfer of risk away from GSEs, which carry a vast proportion of US residential mortgage exposure. To avoid another recapitalisation of the GSEs by the US government, requiring taxpayers' money, since 2013, Credit Risk Transfer (CRT) programs have been established. These are open to a range of institutional investors including (re)insurance companies. During Covid, FHFA felt the benefit of (re)insurers' presence as it was found to stabilise the CRT market. FHFA therefore decided to increase reliance on the (re) insurance sector, seen as patient capital taking a long-term credit view so as to reduce vulnerability to short-term market volatility.

On the other hand, US regulators have so far shied away from allowing (re)insurers to provide CRT relief to the banking sector. Inherited from memories of the issues caused by the involvement of monoline insurers in the GFC, regulators are re-examining this approach.

In the EU, the involvement of (re)insurers in the transfer of bank risk began in 2018. But the Significant Risk Transfer (SRT) market became fragmented in 2021, when STS status for synthetic transactions under the Securitisation Regulation (SECR) was allowed. The requirement to post collateral to achieve synthetic STS status is a feature contrary to the very essence of the business model of non-life insurers. Therefore, (re)insurers are effectively shut out of the growing STS market. The SECR confines (re)insurers to the shrinking proportion of the non-STS market. The European Commission launched a securitisation consultation in late 2024 that addresses the topic; overwhelming support from the industry has been expressed for reforms. The Joint Committee of the European Supervisory Authorities debated in March 2025 the 'pros' and 'cons' of allowing STS status to transactions where (re)insurers act as uncollateralised guarantors, but concluded without a recommendation, leaving the decision to the European Commission.

Meanwhile the UK, with a new focus on competitiveness, has stated that it is changing its "supervisory expectations" and is now considering the participation of (re)insurers in the unfunded SRT market.

The inclusion of insurance policies written by multiline insurance companies as eligible for simple, transparent, and standardised (STS) status under the EU framework would enhance financial stability, improve market efficiency, and support economic growth and competitiveness in Europe through three key mechanisms: increased lending capacity, reduced systemic risk, and improved market resilience. To achieve these benefits will require removing the collateralisation obligation (funded obligation) in the synthetic STS framework for insurance protections provided specifically by highly rated and regulated multiline (re)insurers, a provision designed for credit derivative instruments, but incompatible with the features of credit insurance.

At a time when the European Union is confronted with massive investment needs to improve its competitiveness and security, this targeted change must be included in the 2025 contemplated securitisation reform. By accessing both the capital markets and the reinsurance markets, the European Union will put to work the large and proven risk management capacity of the European multiline (re)insurance sector which enjoys a leading position globally but currently has no other choice than to deploy its capacity outside the EU.

Table of Contents

1 Introduction

1.1 Compounding benefits of using Insurance SRT

The role of insurance companies in securitisation as investors in traditional transactions, on the 'asset side' of their balance sheet, is well understood. Less well understood is the large capacity and expertise of many non-life insurers and re-insurers on the 'liability side' of their balance sheet: underwriting credit risk with credit insurance policies. In response to the needs of the global economy, non-life insurers developed over time insurance to protect financial institutions and corporates from credit losses, notably related to mortgages, trade and project finance, SME and corporate loans. Insurers have been providing banks with uncollateralised credit protection for non-payment of individual loans for more than 20 years, without indication of increasing financial stability risks, nor concerns about policy holder protections. They now play an important role in this market, sharing risk with banks on $360 bn of credit facilities by end of 2023,[3] thereby broadening the number of projects that become 'bankable'. Protecting securitised credit portfolios was a natural extension of the credit insurance business.

Insurance-based SRT protection provides compounding benefits to financial markets, which enable banks to safely increase their capacity to finance strategically important aims, such as delivering on the Green Deal, or making strategic investments in technological advancements. First, the transfer of bank-originated credit risk to multiline insurers materially **reduces systemic risk for both banks and insurers**. The latter improve their risk profile because credit insurance is a natural hedge to the traditional insurance risks such as natural catastrophe, property, casualty, and life risks. The low correlation between traditional property casualty and life risk with credit risks provides important diversification that bolsters the resilience of the insurance sector. Insurance-based SRT simultaneously reduces systemic risk for banks as well as it can reduce the concentration of credit risk held on balance sheet.

Including insurance as an eligible form of risk transfer in prudential regulation broadens and diversifies the universe of counterparties able to assume such risk and facilitates moving credit risk out of the banking sector. Increasing the range of eligible protection providers in credit risk transfer securitisations therefore enhances the safety and soundness of banks while **enabling them to increase lending capacity to the real economy**, including housing, corporates, SMEs, green technology, digitalisation and defence.

Moreover, insurance-based credit risk transfer **enhances market resilience**, by expanding capacity to asset classes for which insurers have deep risk management expertise and a greater risk appetite than other market participants. Insurance capacity remains more stable during financial market volatility (thereby, offering banks reliable partnerships with consistent pricing throughout credit cycles), through insurers' demonstrated long-term commitments to their core business lines, deploying their critical risk absorption capacity even during economic turmoil.

Finally, SRT securitisation, a regulatory form of credit risk transfer, executed principally in synthetic format, enables banks to quickly redeploy capital, thereby enabling a key economic optimisation tool: **capital velocity**.[4] "Insurance SRT", when the credit protection providers are insurance or re-insurance companies (together "(re)insurers"), is an important tool that will help banks to make the lending required to support the real economy.

1.2 Financial stability and the SRT technique

In an answer to a question at a European Parliament (EP) hearing, Maria Luís Albuquerque, Commissioner for Financial Services and the Savings and Investment Union, stated (emphasis added):

> *"[Securitisation] is a very relevant instrument and we should not confuse instruments with the misuse that they have had in the past. They are separate things. So, what we must make sure is that* ***we do take the benefits of those financial instruments while we mitigate and prevent their misuse*** *and address the risks that they may bring about. But given that we do need to have higher levels of financing to our economy, we must look at how we can support the banking sector in doing that, because we want to build a Capital Markets Union."* (EP (2024))

[3] Source: "Survey Demonstrates Global Importance of CPRI", International Association of Credit Portfolio Managers. (Here)

[4] See Duponcheele et al. (2024c)

She later added (emphasis added):

> *"*[Securitisation] *is also a very important instrument* ***to free up space on banks' balance sheets****. But that should be done – and again, I will repeat this as often as needed – everything will have to be tested against financial stability concerns. So if it is something that will in the end endanger financial stability, to me it is a 'no go', honestly. So* ***financial stability is a prerequisite always****."*

Both extracts highlight the challenge of balancing financial stability and growth when using securitisation as an instrument of credit risk transfer. It is a challenge magnified, if not created, by the perception that securitisation, as a financial technology was itself responsible for the financial crisis, rather than the vector through which the deleterious practices of the US subprime mortgage industry were exported. To avoid a repetition of the crisis, regulators across the globe implemented a series of measures to regulate securitisations. Some regions, such as the European Union (EU) went further than others. As is often the case following a financial shock, whilst many of the new regulations were reasonable – and to a large extent merely codified the good practices already existing in the European securitisation market – an element of "overshoot" has limited the efficiency of the traditional format securitisation market in the EU. Post financial crisis, securitisation has primarily developed under the 'synthetic' or 'on-balance sheet' format. For the purposes of this paper these expressions shall be used synonymously.

In a synthetic securitisation, the bank's securitised assets are not legally transferred out of the bank's ownership as would be the case in a traditional securitisation. On the contrary, the securitised assets remain the property of the bank[5] but a third party (the "protection seller" or "protection provider") agrees to pay to the bank the amount of any losses suffered on those assets. These synthetic securitisations rarely cover the whole potential risks on the securitised assets. The protection providers contractually agree to compensate the bank for all losses suffered on a specified pool of assets only when those losses are greater than an agreed number (the "attachment point") but only up to another agreed number (the "detachment point").[6] The bank typically retains the risk of loss up to the attachment point as well as those losses in excess of the detachment point.

Conceptually, to the extent that the synthetic securitisation removes that mezzanine portion of risk on a given pool of bank assets for which capital is legally required, the bank no longer needs this capital as the risk is no longer with the bank. As the capital is no longer needed, it is "freed up" and may be deployed by the bank for new lending. This is why synthetic securitisation enables banks to free-up space on their balance sheets by transferring risk to protection providers and enabling a key economic function: capital velocity.

To avoid any abuse, legislators and/or regulators have created detailed and often complex rules around the amount of capital which can be released via synthetic securitisations. These rules set out when what regulators call "significant risk transfer" or "SRT" (or, in the US, "credit risk transfer" or "CRT") has occurred. Among other things, regulators require the attachment point be sufficiently low and the detachment point sufficiently high, so that the 'significant majority' of the potential losses on the asset pool are covered by the protection provider. Only when the regulators are satisfied that the SRT rules have been met are banks allowed to reduce the capital allocated to the securitised pool.

There are several financial instruments used in synthetic securitisations by which the protection seller agrees to compensate the bank (also called, in this context, the "protection buyer") for losses on a pool of assets including swaps, guarantees, credit linked notes and insurance contracts.

One key distinction is whether the synthetic securitisation transaction is backed by collateral, i.e., "funded" or is only a promise from, for example, a regulated and highly rated insurer to pay any losses, i.e., "unfunded". In a funded securitisation, the protection provider provides cash security for its obligations to make good losses on the pool. In other words, if a loss occurs on the pool which the protection provider is required to cover under the securitisation, the cash is removed from the cash security and paid to the bank. At the end of the transaction, any unused cash security is repaid to the protection provider. In an unfunded securitisation, the protection provider's obligation to compensate the bank for any losses is not collateralised but rather is backed by the strong creditworthiness of the counterparty. Upon the occurrence of any loss covered by the securitisation, the bank will lodge a demand for payment which the protection provider is contractually bound to meet.

[5] This is one of the main advantages of the synthetic technique for banks, as they maintain and always retain the relationship with their borrowers.

[6] It should be noted that the attachment point can be zero, in which case the PSs agree to cover all losses on the pool up to a maximum – the detachment point.

1.3 Different business models: Investor SRT and Insurance SRT

The universe of protection providers is split between public sector institutions (represented by national and multi-lateral development institutions) and private sector institutions. The latter are the focus in this paper.

Due to commercial considerations and the respective business models of the different types of protection providers, private sector SRT is divided into two categories: 1) funded or collateralised credit protection ("Investor SRT"), provided almost entirely by funds (credit funds or pension funds); and 2) insurance credit protection ("Insurance SRT"), provided by insurance undertakings writing synthetic securitisations in the legal form of insurance contracts. The two categories of credit protection flow from the fact that **the business model of insurance fundamentally differs from that of investors in collateralised instruments.** Both serve complementary roles and provide important capacity to the economy. Increasing the number and diversity of eligible protection providers also strengthens financial stability.

Box: The two complementary roles: asset side and liability side

(Re)insurers can play two roles in securitisation both within the scope of prudential regulations (e.g., Solvency II) and supervisory oversight. They can use both the asset side and the liability side of their balance sheets to participate in securitisations (IACPM (2024)). Their business rationale and risk appetite is however very different in their investments (funded assets) and in their liabilities (unfunded credit protections).

1. As **collateralised (funded or 'cash') investors on the asset side of their balance-sheet**, (re)insurers can hold bonds in true sale securitisations, and/or credit linked notes (CLNs) (directly issued by the bank or via an SPV) in synthetic securitisations. In the EU and UK, under Solvency II, because of the underlying assumption in capital charge calibration that insurers may have to sell their assets under distressed market conditions to pay claims, these investments are treated as "market risk" ('spread risk shocks').[7]

   (Re)insurers, however, have a limited risk-taking mandate on the asset side of their balance sheet. Assets are selected via a stringent asset-liability management process to pay claims when they arise. While some (re)insurers (mainly lifers) may invest in some funded SRT transactions, there is limited scope to grow this SRT activity on the asset side.

2. The credit insurance arm of well-diversified[8] multiline non-life (re)insurers can also provide **credit protection from the liability side of their balance-sheet**, and cover losses in specific tranches of securitisations. Contracts can take the form of credit insurance policies, non-payment insurance, risk participation agreements or guarantees and are provided directly to banks, or to SPVs or via CLNs. In the EU and UK, these contracts are treated as "non-life underwriting risk" in the Solvency II regulation.

   At (re)insurers, risk-taking typically occurs on the liability side via insurance policies or unfunded guarantees. Non-senior tranches in SRT transactions are illiquid and are not suited for the asset side of an insurer's balance sheet, but very well suited for their liability side. This is the primary way through which non-lifers provide protection through SRT transactions.

On the liability side of their balance sheets, the insurance business model is predicated on accumulating a diversified portfolio of uncorrelated risks and proactively managing portfolio concentration by syndicating the risk to other reinsurers and capital market investors. The portfolios of multiline non-life (re)insurers are highly diversified; credit insurance risk represents a small portion of a much larger portfolio, and importantly, losses from credit events are not correlated to the property and casualty risks that comprise the majority of any given multiline insurer's portfolio. Because of the strong benefits of diversification, the business model and pricing of insurance policies do not contemplate the collateralisation of insurance policies. To clarify, insurance obligations are supported by the strong balance sheets of regulated entities and are not, therefore, collateralised. In securitisation regulatory terminology, they are 'unfunded'.

Insurance Europe, the European insurance and reinsurance federation, explained why insurers do not provide collateral as part of their core business model, which is risk underwriting:

[7] The 'spread risk shocks' of the Solvency II Standard Formula are miscalibrated, as explained in Duponcheele and Perraudin (2025).

[8] Well-diversified insurance companies have sophisticated risk managers applying industry standard diversification and reinsurance techniques.

"Naturally, multiline insurers guarantee their solvency through the insurance principle based on the law of large numbers and the diversification of risks with sufficient equity capital under rigid regulation. A collateral position represents excessive friction for insurers because liquid assets are held by insurance companies for potential claims payments and are linked to the opportunity costs of the illiquidity premium. Providing collateral or taking on capital-backed risks in securitisations is therefore associated with significantly higher costs for such covers." (Row 55 in EC (2025))

1.4 A kaleidoscope of regulatory approaches on Insurance SRT

When considering securitisation as an instrument of credit risk transfer, regulators across advanced economies have developed rules to support economic growth without weakening financial stability. In some jurisdictions, this includes fostering an active Insurance SRT market, while in others the technique is only partially authorised, or not at all. This results in a kaleidoscope of regulatory approaches across jurisdictions, and sometimes even within the same jurisdiction.

As many jurisdictions are currently reviewing their securitisation rules (either as part of a broader set of financial rules such as the potential adoption of Basel III (US), or to address the diversity of rules developed across jurisdictions over the years, some of them having been deemed not fit for purpose in light of competitiveness issues (EU, UK)), this paper will review Insurance SRT across those aforementioned jurisdictions.

Section 2 of the paper analyses the history of US credit risk transfer within the housing finance system. There, the Federal Housing Finance Agency (FHFA), the regulator responsible for overseeing government sponsored enterprises Fannie Mae and Freddie Mac (the "GSEs"), developed world-leading programs of Credit Risk Transfer (CRT) to protect taxpayers. Since their inception in 2013, these CRT programs include both 'funded' programs for capital markets investors and insurance programs. The diversity of protection providers (funded investors and (re)insurers) is a key strength. This became apparent during COVID, when the participation of regulated (re)insurers broadly increased as the willingness of funded investors to participate decreased. **As a result, the GSEs increased their use of insurance from 25% to roughly 40% of their CRT trades.** This combination of both capital markets and (re)insurance in the CRT programs had a positive impact on financial stability (stabilisation of prices and continuity of risk taking) across varying economic conditions. **Over the last decade, in the GSEs' CRT programs, the number of (re)insurers has steadily increased and reached more than 60 (compared to slightly more than a dozen in the European SRT market)**. By end 2023, those (re)insurers protected about $60 bn of risk referencing $1.5 trn of US residential mortgages (FHFA (2024c)).

Yet, at the same time, the regulators of US commercial banks, i.e., the Office of the Comptroller of the Currency (OCC), the Federal Reserve System (FRS) and the Federal Deposit Insurance Corporation (FDIC), do not in effect recognise insurance protection from insurers as an eligible credit risk mitigant for capital release. This stems from concerns inherited from the 2008 crisis (the "Great Financial Crisis" or "GFC") over a specific business model: that of 'monoline insurers'. This makes the US "open for business" for the GSEs and 'closed for business' for US banks; whether this dichotomy remains will depend on the new presidential administration. This is reviewed in Section 3.

Section 4 analyses the regulatory landscape in the EU, which is currently in the midst of revisiting in depth its non-prudential securitisation framework, as well as the securitisation prudential framework for banks and (re)insurers. The EU implemented in 2019 Basel's Simple, Transparent and Comparable (STC) label for traditional securitisations including additional requirements, to create the European Simple, Transparent and Standardised (STS) label. It extended the STS label to synthetic securitisation in 2021. This boosted the issuance of synthetic SRT transactions, thus helping European banks to increase their capital velocity. This boost arose primarily because the risk weight applied in the Capital Requirements Regulation (CRR3) to the risk retained by banks (the senior tranche) was reduced by a third for STS transactions, from 15% to 10%, making more transactions economically viable. By the end of 2023, about €300 bn of loans originated by EU banks were protected by close to 8% (€24 bn) of SRT transactions. The share of STS compliant transactions increased year after year. However, one criterion added in 2021 to the synthetic STS label was that the protection should either be funded (i.e., fully collateralised) or provided by counterparts which do not attract any capital requirements in the CRR (sovereign entities and multilateral development banks). The good intention of regulators was to ensure that the protection would be immediately effective in case of losses, and that the issuing bank would not be exposed to any counterparty risk on its protection provider.

Though this approach can be consistent with the general objective of mitigating risks to financial stability in

derivatives markets, through the establishment of clearing, initial margin and variation margins, this precaution is much less relevant to the long-term risk sharing partners of banks. The result effectively limited regulated (re)insurance entities from providing credit protection to the growing market of synthetic STS securitisations. The consequence is that, if a bank wants to share risk with the private market and benefit from the more favourable STS capital treatment on its retained senior tranche, the non-senior tranches providing capital relief must be placed with funded protection providers such as investment or pension funds. Banks cannot benefit from the STS label and the reduced risk weight when sharing risk with (re)insurers, although they may value the financial strength, the business relationship, expertise and long-term view of (re)insurers as protection providers. Indeed, (re)insurers started to provide protection to SRT transactions of European banks in 2018 when funded and unfunded securitisations were on a regulatory par. By end 2024, the outstanding insurance protections on SRT transactions issued by European banks amounted to about €6 bn, on a variety of asset classes. However, since the market fragmentation of 2021(re)insurers have focussed in the EU on the smaller and less capital efficient market of non-STS SRT securitisations. This reduces the competitiveness of both EU banks and EU (re)insurers. This makes the EU partially "open for business" for (re)insurance SRT.

The European Commission included in its October 2024 consultation several questions addressing the specific issue of (re)insurers' inability to access STS securitisations as protection providers. A review of the responses received can be found in this paper. It shows overwhelming support for allowing (re)insurers to provide STS Insurance SRT.

Section 5 focusses on the UK. There, the SRT rules followed the EU ones only until the end of 2020. This means that the post-Brexit 2021 changes allowing (funded) synthetic securitisations to qualify as STS were not implemented. In line with pre-Brexit EU rules, funded and unfunded transfers of risk, including via insurance contracts, are technically possible through synthetic securitisation, but neither can qualify as STS. Additionally, for many years it was understood that the Prudential Regulatory Authority (PRA) strongly 'preferred' funded SRT. In 2023, responding to a UK discussion paper on securitisation, banks asked the PRA to clarify whether the regulator would recognise insurance SRT. In late 2024, the PRA issued a consultation paper, focussed on reviewing the current approach and its implications on UK competitiveness. It is expected that insurance SRT will be treated more favourably than heretofore.

Section 6 recapitulates the different points, focusing on the benefits of Insurance SRT as well as any mitigants to perceived issues, as well as data on the market, to highlight the economic importance of the question addressed in this paper.

Section 7 concludes the report. This report aims at providing transparency on the differences in regulatory treatment and in regulators' approaches between key jurisdictions, to assist banks, insurers and policy makers in setting-up the most appropriate frameworks for insurers' protections in the growing market of synthetic SRT securitisations. The cross-jurisdiction analysis contained in the paper demonstrates that, as a complement to 'funded' solutions, 'unfunded SRT' executed with highly regulated, well-capitalised and well-diversified (re)insurers, strengthens financial stability, both in the banking and insurance sectors.

2 The US Government-Sponsored Enterprises

2.1 FHFA: a Regulator and a Conservator

In the US, the European expression of "significant risk transfer" or "SRT" becomes "credit risk transfer" or "CRT". The two are conceptually identical (even if the rules around them are quite different.) The authors will use the expression CRT when describing the US market and SRT elsewhere in this paper.

According to Killian and Guoling (2024), in the U.S., the most prolific participants in the CRT markets are the housing-related government-sponsored enterprises (GSEs), the Federal National Mortgage Association (a.k.a. Fannie Mae) and the Federal Home Loan Mortgage Corporation (a.k.a. Freddie Mac). Since 2013, the GSEs have sold or transferred risk on over $6.7 trillion of residential mortgage loans, with a combined amount of risk absorbed by third-party market participants of over $200 billion. They also transfer risk on housing-related commercial mortgages. The Federal Housing Finance Agency (FHFA), their regulator and conservator, requires the GSEs to transfer a "*meaningful amount of credit risk to private investors*" (FHFA (2024c)).

The FHFA was established when Congress passed the Housing and Economic Recovery Act of 2008 (HERA), which amended the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (Safety and

Soundness Act). Together, the two Acts outline the obligations of the FHFA with respect to the effective supervision, regulation, and mission oversight of Fannie Mae, Freddie Mac, the Common Securitization Solutions, LLC (CSS), a platform handling mortgage-backed securities for Fannie Mae and Freddie Mac, and the Federal Home Loan Bank System, which includes 11 Federal Home Loan Banks (FHLBanks) and the FHLBanks' joint Office of Finance.

The HERA statute vests the FHFA with the authorities, similar to those of other prudential financial regulators, to maintain the financial health of Fannie Mae, Freddie Mac, and the FHLBanks (together, the "regulated entities"), to ensure they can fulfil their mission by operating in a safe and sound manner and so serve as a reliable source of liquidity and funding for housing finance and community investment throughout economic cycles. In its recent Accountability Report, FHFA stated that it is committed to ensuring the **US's housing finance system is stable and strong** and promotes access, equity, sustainability, and affordability for homeowners and renters (FHFA (2024a)).

Fannie Mae and Freddie Mac were established in 1938 and 1970, respectively, to provide stability and liquidity in the secondary market for residential mortgages. They acquire mortgages that lenders have already originated. The GSEs finance these acquisitions and manage their exposure to interest rate and prepayment (or duration) risk on the timely payment of principal and interest, by issuing mortgage-backed securities (MBS) through the to-be-announced (TBA) bond market. The GSEs charge lenders a fee on acquired loans which funds their guarantee of the timely payment of both principal and interest on the underlying mortgages to the MBS investors. In other words, the GSEs only cede interest rate risk to the MBS investors and retain the mortgage credit risk. Since the establishment of the TBA market in 1970, the GSEs have continuously ceded interest rate and prepayment (or duration) risk to sophisticated investors.

The TBA market creates parameters under which mortgage pools can be considered fungible, which increases originator liquidity because the actual mortgage loans do not need to be explicitly known at the time a trade is initiated. This is where the name for the product "To Be Announced" comes from. The TBA market is based on one fundamental assumption – homogeneity; at a high level, one MBS pool can be considered to be interchangeable with another pool (SIFMA (2015)).

Driving further homogeneity in the GSE MBS issuance, in 2019 Fannie Mae and Freddie Mac began issuing Uniform Mortgage-Backed Securities (UMBS) through the jointly owned Common Securitization Solutions (CSS) using the Common Securitization Platform (CSP). With CSS operating as an agent for the GSEs, the CSP supports back-office functions associated with single family securitisation, including storing, processing, and transmitting large volumes of data, as well as issuing related disclosures. Specifically, CSS records securities with registrars (e.g., the Federal Reserve Bank of New York), supports and facilitates security settlement activities, validates settlements, and provides confirmation back to the requestor. Most single-family mortgage loans are pooled into MBS, the timely payment of principal and interest guaranteed by the GSEs and then sold to investors.

However, until the substantial deterioration in the housing markets in the GFC that severely damaged each GSE's financial condition and left both of them unable to fulfil their missions, and the subsequent reforms implemented by FHA as conservator, the GSEs retained all of the mortgage credit risk on the mortgage loans underlying the pooled MBS. In fact, retaining all the mortgage credit risk on acquired loans is the primary cause of the GSEs' failure during the GFC.

Beginning September 6, 2008, the GSEs have operated in conservatorships, with FHFA having the powers of the management, boards, and shareholders of Fannie Mae and Freddie Mac. The FHFA's authority, as conservator, is granted in HERA, which requires the FHFA to:

> *"…take such action as may be—*
>
> *i. necessary to put the regulated entity in a sound and solvent condition; and*
>
> *ii. appropriate to carry on the business of the regulated entity and preserve and conserve the assets and property of the regulated entity."*

On September 7, 2008, in exchange for financial support, the U.S. Department of the Treasury required the GSEs to (i) provide stability to the financial markets; (ii) prevent disruptions in the availability of mortgage finance; and (iii) protect the taxpayer.[9]

[9] https://www.fhfa.gov/conservatorship/senior-preferred-stock-purchase-agreements

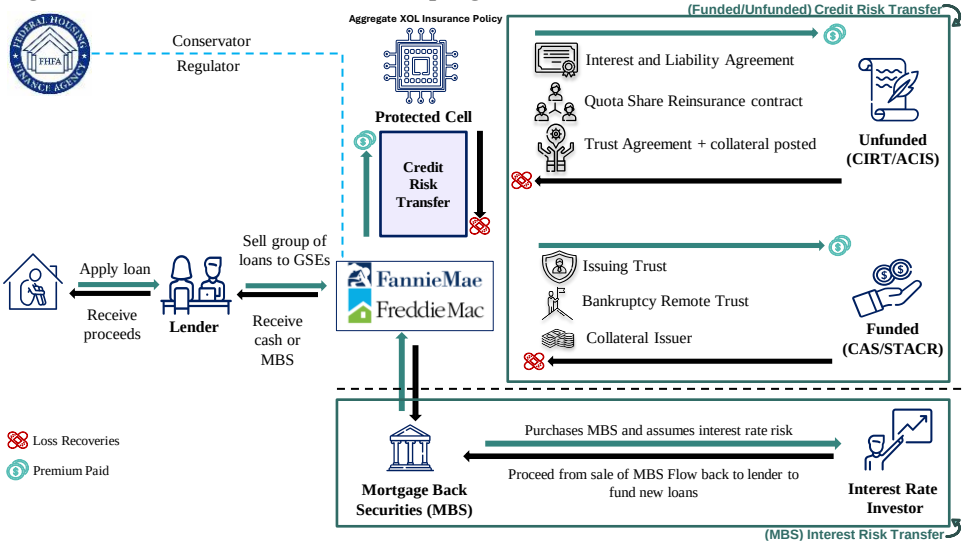
Unlike other regulators, FHFA is in a unique position of being both a regulator and a conservator of financial institutions involved in a financial market weighing several trillion dollars. FHFA approaches financial stability from a practical rather than theoretical perspective. The agency develops and implements specific rules, carefully monitors their impact, and uses this empirical evidence to create a continuous improvement cycle for its regulatory framework. Steering directions are given to the GSEs via formulated targets set out in Conservatorship Scorecards.

2.2 The Credit Risk Transfer (CRT) programs

In 2012, FHFA established guidelines governing single-family credit risk sharing by the GSEs with the intent of reducing their overall risk and, therefore, the risk they pose to taxpayers while they are in conservatorship. They started to implement their CRT programs in 2013 and now transfer to private investors a substantial amount of the credit risk of new acquisitions the GSEs assume for loans in targeted loan categories (FHFA (2024b)). FHFA defines CRT as the transfer of a portion of mortgage credit risk from the GSEs to private investors. FHFA maintains a policy page on its website, in which it explains that the CRT programs at Fannie Mae and Freddie Mac were established to reduce taxpayer exposure to risks arising from credit guarantees extended by the GSEs through their normal courses of business (FHFA (2025a)). Under FHFA's oversight through guidelines, instructions, strategic plans, and scorecard objectives, **the CRT programs have since become a core part of the GSEs' single-family guarantee businesses**, similar to how risk sharing with the private sector is an integral part of the GSEs' multifamily businesses.

Importantly, the GSEs CRT programs do not disrupt the operation of the agency MBS market or affect the risk facing MBS investors (see Figure 2.1.2). The MBS investors are exposed to interest rate and prepayment risk while the GSEs and the CRT investors are exposed to the mortgage credit risk. Ensuring that these markets functioned independently was critical for ensuring that CRT did not disrupt the TBA market, which is the primary driver of liquidity in the U.S. mortgage market.

Figure 2.1.2. Funded and Unfunded programs of the GSEs



Note: Funded CRT is executed through traditional securitisation vehicles; unfunded CRT is executed through aggregate excess of loss (XOL) (re)insurance contracts.

Like SRT in Europe, the GSE CRT programs include both unfunded, insurance-based transactions as well as funded, capital markets-based transactions. Fannie Mae and Freddie Mac's securities issuances is equivalent to funded CRT, and the insurance/reinsurance program is equivalent to unfunded (or partially collateralised) CRT. The GSE programs nomenclature is shown in Table 2.1.1.

Table 2.1.1: Names of CRT Programs with the housing-related GSEs

CRT Programs	Fannie Mae	Freddie Mac
Funded CRT	Connecticut Avenue Securities (CAS)	Structured Agency Credit Risk (STACR)
Insurance CRT	Credit Insurance Risk Transfer (CIRT)	Agency Credit Insurance Structure (ACIS)

These CRT programs targeted loan categories are single-family fixed-rate mortgages with loan-to-value ratios

(LTVs) greater than 60 percent and up to 97 percent as well as original term greater than 20 years.[10] The single-family CRT programs include credit risk transfers using capital markets issuances (both corporate debt and bankruptcy remote trust structures), **insurance/reinsurance transactions**, senior-subordinate securitisations, and a variety of lender risk-sharing transactions. The GSEs continue to innovate and experiment with different structures and attempt to expand the scope of their CRT programs as part of their efforts to further reduce credit risk where economically sensible.

FHFA produces an annual report on the progress of credit risk transfer (FHFA (2024b)). As shown in Table 2.1.3, from the beginning of the GSEs' Single-Family CRT programs in 2013 through the end of 2023, the GSEs transferred a portion of credit risk on approximately $6.7 trillion of unpaid principal balance (UPB), with a combined Risk in Force (RIF[11]) of $210 billion, or 3.2 percent of UPB. Cumulatively, securities issuances and insurance/re-insurance accounted for 66% and 29% of total RIF of CRT issuances, respectively.

Table 2.1.3: Cumulative Single-Family Credit Risk Transfer Volume

$ millions	Fannie Mae			Freddie Mac			Enterprises		
	Referenced UPB	RIF	Total RIF (%)	Referenced UPB	RIF	Total RIF (%)	Referenced UPB	RIF	Total RIF (%)
Securities Issuances	2,148,258	64,511	65%	2,630,983	73,726	67%	4,779,241	138,237	66%
Insurance / Reinsurance	875,834	25,957	26%	669,710	34,162	31%	1,545,544	60,119	29%
Lender Risk Sharing	265,115	9,238	9%	47,564	1,505	1%	312,679	10,743	5%
Senior / Subordinate				27,600	1,119	1%	27,600	1,119	1%
Total	**3,288,757**	**99,707**		**3,375,857**	**110,512**		**6,664,614**	**210,219**	

Source: FHFA Credit Risk Transfer Progress Report (FHFA (2024b))

The STACR/CAS programs issue securities as GSE debt or debt of a bankruptcy-remote trust and accounted for 64% of the RIF transferred by the GSEs during 2023, down slightly from the 66% cumulative average. While the trust does not hold the mortgage loans, the cash flows of the securities track the credit performance of a reference pool of mortgages. The GSE or the trust receives the proceeds from investors at the time of issuance and, in return, investors receive monthly payment from the GSE or the trust. That payment includes both interest and principal, with the principal payment based on the repayment and credit performance of the loans in the underlying reference pool.

The STACR/CAS structure has several key benefits. The liquidity of the to-be-announced (TBA) market is not affected by this structure because the loans referenced were previously pooled into guaranteed mortgage-backed securities and sold in the TBA market. The STACR and CAS transactions are also effectively fully collateralised by cash investors pay to purchase the securities. This means that the GSEs essentially have no counterparty or reimbursement risk with this structure.

The ACIS/CIRT transactions accounted for 36% of the RIF transferred by the GSEs during 2023, an increase of 7% from the cumulative average share. The programs are essentially bilateral contracts with (re)insurers covering a pool of mortgages, and are separate from the individual loan-level RIF coverage that mortgage insurers provide to the GSEs on mortgages with a LTV greater than 80%.

Through the ACIS and CIRT structures, the GSEs purchase insurance primarily from diversified reinsurers. Freddie Mac stated that since inception it has contracted with 60+ (re)insurers (Freddie Mac (2024)). These transactions are partially collateralised (amount depending on the insurer's rating[12]) and distributed among a variety of highly rated insurers and reinsurers which reduces counterparty, reimbursement, and correlation risk.[13]

[10] HARP/Freddie Mac Relief Refinance/Fannie Mae Refi Plus loans are excluded, and other minimal exclusions apply.

[11] FHFA uses the terminology RIF for the amount of credit risk transferred, by analogy with what is employed in primary mortgage insurance.

[12] For example, Fannie Mae has a RIF collateralisation percentage matrix, based on the combination of two external ratings, with low percentage for the high investment grades with two rating agencies, to a 100% value for sub-investment grade with two rating agencies. It also has a premium capture mechanism to increase the collateralisation percentage over time, reflecting the fact that the risk is not a mark-to-market risk (see box on AIG), but a credit risk that occurs over time.

[13] As stated by FHFA, reinsurers are often characterised by diversified lines of business, which help mitigate the risk that the Enterprises'

Freddie Mac and Fannie Mae have different approaches to the reference pools behind their respective reinsurance deals.

- The ACIS structure generally shared the same reference pool as STACR, and Freddie Mac allocated the risk transfer between capital markets and reinsurance investors. In 2021, Freddie Mac moved to more stand-alone ACIS transactions (so called stand-alone policy (SAP)), which have separate reference pools from STACR.
- Since program inception, Fannie Mae has established separate reference pools for CAS and CIRT transactions.

Fannie Mae and Freddie Mac disclose pricing for CIRT[14] and ACIS[15] transactions, respectively.

For the sake of completeness, there are some other innovative risk transfer methods for single family assets that the GSEs have either tested and/or discontinued over the years, but those are not material for the purpose of this paper.

The GSEs have also a multi-family CRT activity, but the amounts are dwarfed by the amounts of the single-family CRT activity. Fannie Mae's Multifamily CAS (MCAS) had a UPB of $24 billion in 2023, and a Multifamily CIRT (MCIRT) UPB of $ 6.9 billion over the same period. Freddie Mac's two companion Multifamily Structured Credit Risk Notes (MSCR) / Multifamily Credit Insurance Pool (MCIP) had a UPB of $15.8 billion in 2023.

2.3 FHFA's principles for CRT and real-life implementation

FHFA assesses all GSE credit risk transfer activities using the same key CRT principles, which it has listed (FHFA (2024b)). We have regrouped them in three categories, that we call: financial stability principles, market principles, and fairness principles.

The "stability" principles are:

- ***Reduce taxpayer risk****: Transactions should transfer a meaningful amount of credit risk to private investors.*
- ***Broad investor base****: The program should include different transaction structures to attract a diversified and broad investor base with the objective of improving pricing, increasing secondary market liquidity, and promoting market stability.*
- ***Stability through economic and housing cycles****: Transaction structures should be designed to ensure that at least some investors will remain in the market through all phases of the housing price cycle, including economic downturns.*
- ***Counterparty strength****: In transactions in which the credit risk being transferred is not fully collateralised, credit risk transfer counterparties to the Enterprises should be financially strong companies that are able to fulfil their financial commitments even in adverse markets.*

The "market" principles are:

- ***Economically sensible****: The program should consist of transactions in which the cost to the enterprise for transferring the credit risk does not meaningfully exceed the cost of self-insuring the credit risk being transferred.*
- ***Repeatable****: Whenever possible, transactions should be part of a regular program of similar transactions.*
- ***Scalable****: Transaction structures should be capable of being scaled without significantly affecting the economics or management of the transaction.*
- ***Continuity of core business****: Transactions should not interfere with the continued operation of the enterprises' core business, including the efficient operation of the TBA market or the ability of borrowers to access credit.*

counterparties may have increased claims at the same time as the Enterprises due to housing market stress.

[14] FannieMae, CIRT Pricing, https://capitalmarkets.fanniemae.com/credit-risk-transfer/single-family-credit-risk-transfer/credit-insurance-risk-transfer/cirt-pricing

[15] FreddieMac, ACIS Pricing, https://capitalmarkets.freddiemac.com/crt/reinsurance/pricing

The "fairness" principles are:

- ***Transparency**: Parties to a transaction should provide public disclosure of transaction information, whenever practical.*
- ***Level playing field**: Credit risk transfer transactions should only reflect the cost of transferring credit risk and should not favour large mortgage originators over small ones.*

Let's focus on the FHFA principles that we categorise as related to 'stability'.

The first principle "reduce taxpayer risk" goes back to 2012, when FHFA had established a goal of reducing the risk exposure of taxpayers presented by the credit guarantees extended by the GSEs. Conservatorship strategic plans and scorecards were used by FHFA to encourage the GSEs to transfer credit risk to the private sector. The 2012 strategic plan proposed to use "loss sharing agreements" to reduce the credit risk. The 2013 scorecard required each GSE to "demonstrate the viability of multiple types of credit risk transfer transactions" on single-family loans. The 2014 strategic plan emphasized the desirability of greater use of credit risk transfer in the future. The 2014 and 2015 scorecards set more ambitious credit risk transfer performance goals for each GSE (FHFA (2015)) and since that time the scorecards have required the GSEs transfer credit risk, with the most recent scorecard requiring the GSEs "*transfer a meaningful amount of credit risk to private investors in a commercially reasonable and safe and sound manner, reducing risk to taxpayers.*" [16]

The second principle of a "broad investor base" was implemented by ensuring that, from the very beginning, funded debt investors and unfunded insurance and reinsurance companies would be able to access the market.

Those two key principles were at the forefront of the 2013 press statements by the FHFA Acting Director, Edward J. De Marco. This statement gives an insight as to the thinking of the authorities when the CRT programs were launched (emphasis added):

- 24-Jul-2013: "*One of the goals of our Scorecard and Strategic Plan for Enterprise Conservatorships is to gradually contract Fannie Mae and Freddie Mac's dominant presence in the marketplace. This transaction* [a direct debt issuance] *is a step towards that goal. It was designed to gain insight as to how the private sector prices mortgage credit risk and to reduce taxpayers' exposure to that risk.* ***We expect to learn from this transaction, refine the approach and maintain steady progress with future transactions to restore private sector participation in housing finance.***"
- 15-Oct-2013: "*[…] the first Connecticut Avenue Securities or "C-deal" transaction […], and the mortgage insurance pool policy transaction that Fannie Mae completed last week, support FHFA's 2013 Conservatorship Scorecard and FHFA's Strategic Plan for the Enterprise Conservatorships.* ***These transactions demonstrate different structures for transferring credit risk to investors thereby facilitating Fannie Mae's reduced footprint in the marketplace and ultimately protecting taxpayers.***"
- 12-Nov-2013: "*[…] FHFA is pleased that Freddie Mac has completed another risk-sharing transaction—an insurance policy with Arch Reinsurance Ltd. that covers up to $77.4 million of potential losses on a pool of loans guaranteed by Freddie Mac.* ***The completion of this deal is unique in that it is with a diversified non-mortgage insurer and it demonstrates yet another approach to risk-sharing with investors****. The transaction supports FHFA's 2013 Conservatorship Scorecard and FHFA's Strategic Plan for the Enterprise Conservatorships,* ***reducing Freddie Mac's market footprint and ultimately protecting taxpayers.***"

The third principle of "stability through economic and housing cycles" is discussed in FHFA (2015). FHFA acknowledged that the then just-launched CRT programs to transfer credit risk to the private sector were an innovative effort involving the creation of new markets for which many unknowns remained. Specifically, FHFA did not know the extent to which investors would continue to participate through a housing downturn, and whether the investor base and pricing for these transactions could be affected by a higher interest rate environment in which other fixed-income securities may be more attractive alternatives. However, FHFA thought about how the CRT market could weather an entire housing price cycle and described the elements the GSEs needed as the best way to provide a stable and resilient market. Those were (emphasis added):

[16] https://www.fhfa.gov/document/2025-Scorecard.pdf

a) *Develop innovative methods of credit risk transfer that encourage investment throughout the housing market cycle, particularly during adverse market conditions as experienced in 2008;*

b) Use multiple types of transactions designed to attract a wide variety of investors;

c) Continue to expand the investor base for securitized products as well as look for additional sources of private capital to participate in credit risk transfer activities;

d) *Issue a large enough volume of transactions to ensure a liquid primary market for securitized investment products such as STACR and CAS;*

e) *Encourage a liquid secondary market for securitized products that gives investors a viable exit strategy;*

f) *Avoid flooding the market for any particular type of risk transfer product in a way that leads to poor transaction economics or causes investors to abandon the market because the value of their existing holdings is reduced;*

g) *Encourage standardization of credit risk transfer in the long term, so that the market for credit risk transfer becomes as deep and liquid as possible;*

h) *Encourage a diverse group of financial, advisory, and housing-oriented companies, including minority- and women-owned businesses, to participate in credit risk transfer transactions in order to build a stable pool of third-party service providers and provide necessary competition to ensure an efficient market for their services; and*

i) *To the maximum extent feasible, continue to provide transparency and facilitate an open exchange of information by being open to new ideas and input and encouraging greater information sharing among industry participants and policy makers.*

FHFA's forward thinking on stability through economic and housing cycles would prove prescient in a totally unexpected situation, when COVID started to create market turmoil (see Appendix A2 – Key concepts with FHFA). The importance of point (b) (variety of investors) turned out to be more important than initially thought, and FHFA's foresight in ensuring that insurers and reinsurers should be present in this market from day-one was an important component of stabilisation in the CRT market. In fact, after this 'baptism by fire', the proportion of UPB covered by insurers and reinsurers was increased in recognition of the funded investors' CRT pullback during that period of market turbulence (see Figure 2.4.1 in the next section).

The fourth principle "counterparty strength" is relevant only to the unfunded CRT programs. FHFA (2015) explained that insurance or reinsurance transactions that are over and above any charter compliant primary mortgage insurance (MI) are considered part of the credit risk-transfer programs. CRT pool level insurance has been provided primarily by reinsurance companies putting their own capital at risk, and FHFA's initial focus was on obtaining broad participation by reinsurance companies in Fannie Mae's Credit Insurance Risk Transfer (CIRT) and Freddie Mac's Agency Credit Insurance Structure (ACIS) programs. For FHFA,

> "*one advantage of conducting transactions with reinsurers is that they are generally diversified in their risk exposures. This may result in lower counterparty risk because their book of business risk should be less correlated with the [GSE]'s book of business risk and thus may be better able to withstand a home price stress cycle than a monoline mortgage insurer.*"

In 2016, FHFA produced a public consultation ("Request for Input") on ways to improve its CRT programs, in which it further refined its thoughts and stated that the concern is "correlated business risk" (emphasis added):

> *"Correlated business risk is the risk that occurs when the core business and source of revenue of two counterparties are highly correlated with one another. Financial regulators also refer to this risk as wrong-way risk. The Enterprises are monolines and are not diversified – meaning their business risk is focused solely on one asset type, namely mortgage loans. As a result, the Enterprises are exposed to correlated business risk when they conduct business with counterparties that, similar to the Enterprises, are focused primarily on mortgage loans. If not managed properly, correlated business risk would expose the Enterprises to potential losses. If the mortgage market suffers a downturn, a counterparty with correlated business risk might need to pay an increased number of claims, including claims to the Enterprises, which could result in the counterparty becoming financially weaker.*
>
> *The Enterprises manage correlated business risk in several ways.* ***First, the Enterprises engage in some transactions with counterparties that are well diversified and not highly correlated with the***

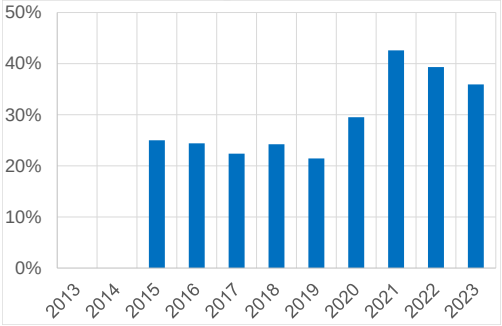
> ***housing and mortgage market.*** *Second, for companies that are focused primarily on mortgage loans, the Enterprises expect those counterparties to offset this exposure. Enterprise counterparties can do so by posting substantial collateral, with full collateralization being the best mitigant. Alternatively, counterparties can also either demonstrate sufficient financial strength or conduct their own transactions to transfer credit risk. Reducing correlated business risk through these two approaches helps reduce broader systemic risk to the financial system." (FHFA (2016))*

The GSEs further mitigate counterparty risk in pool level transactions through partial collateral requirements based on factors including the counterparty strength of the reinsurer, the deal structure and the risk profile of the underlying mortgage loans.

2.4 Since COVID, there is an increased usage of Insurance CRT

As the CRT programs grew, the proportion of protection provided between the funded and reinsurance markets has shifted based on the underlying economic conditions. For example, as shown in Figure 2.4.1, the total RIF for (re)insurers, aggregated for both Enterprises, remained fairly steady at around 20%-25% between 2015-2019. However, COVID and other market factors materially impacted the risk appetite of funded CRT investors, who retracted meaningfully from the market. Reinsurance companies, on the other hand, price for inevitable catastrophic loss and rely proper diversification to ensure a resilient portfolio. As a result, history has shown no great exodus of reinsurers from markets following market disruptions, such as COVID. In fact, reinsurers provided the GSEs with more CRT protection during the COVID pandemic providing over 40% of CRT protection during this period of turmoil.

Figure 2.4.1: Enterprises' Percentage of Total RIF for Insurers



Source: FHFA Scorecards, Annual reports and CRT Progress reports

2.5 Evolution of the U.S. Department Treasury's support of the GSEs

As mentioned previously, in 2008, the U.S. Department of Treasury agreed to provide financial support to the GSEs when they entered into conservatorship; in exchange the GSEs were required to remit all their earnings to the U.S. Department of Treasury, a provision commonly referred to as the "net worth sweep".[17] While the net worth sweep was in effect, FHFA had ambitious targets for the amount of UPB from new acquisitions that would be targeted for CRT, as CRT was viewed as a tool to reduce taxpayer risk.

The agreement with the U.S Department of Treasury was amended, first in 2017 and then in 2019, allowing the GSEs to build capital reserves.[18] In 2021, the agreement was further amended and now allow Fannie Mae and Freddie Mac to retain more earnings. This, combined with the newly proposed Enterprise Regulatory Capital Framework (ERCF), sparked debate about Credit Risk Transfer (CRT) programs - some wanted to end them to build capital faster by reducing the expense associating with purchasing protection, while others supported

[17] The U.S. Department of the Treasury (Treasury) provided Fannie Mae and Freddie Mac with financial support through the Senior Preferred Stock Purchase Agreements (SPSPAs), which were executed on September 7, 2008, one day after Fannie Mae and Freddie Mac entered conservatorships ("Original Agreements") and thereafter amended. The SPSPAs were designed to ensure that Fannie Mae and Freddie Mac, respectively: (i) provide stability to the financial markets; (ii) prevent disruptions in the availability of mortgage finance; and (iii) protect the taxpayer. In exchange for Treasury's financial support, the SPSPAs required Fannie Mae and Freddie Mac, among other things, to make quarterly dividend payments to Treasury, provide Treasury with a Liquidation Preference, and beginning in 2010 pay Treasury a periodic commitment fee that reflects the market value of the outstanding Treasury commitment, as well as Stock Warrants for the purchase of common stock representing 79.9% of the common stock of Fannie Mae and Freddie Mac, respectively, on a diluted basis. (FHFA (2025b)). The 'net worth sweep' was implemented in 2012 as a further amendment.

[18] In 2017, Fannie Mae and Freddie Mac were each permitted to retain $3 billion capital reserve. In 2019, the cap was increased to $25 billion for Fannie Mae, and $20 billion for Freddie Mac.

continuing the CRT programs to reduce taxpayer risk. During this period, Fannie Mae paused its CRT activities until late 2021 when the ERCF and associated capital credit for CRT was finalised, while Freddie Mac quickly resumed them after a brief pause in 2020.

The debate settled in the middle, with both GSEs doing both, retaining some earnings and issuing some CRT transactions. As at the end of FHFA's Fiscal Year 2024, the GSEs' net worth increased to $90.5 billion for Fannie Mae and $56.4 billion for Freddie Mac. Currently, the GSEs evaluate the efficacy of their CRT programs based on the capital credit achieved under an amended ERCF in addition to scorecard targets. The role of CRT has thus evolved to a Risk Management and Capital Management tool, closer in spirit to how banks utilize CRT.

2.6 Credit for CRT under the Enterprise Regulatory Capital Framework

FHFA as a regulator, rather than as a conservator, had to decide on the prudential rules that apply to the GSEs to ensure each "*operates in a safe and sound manner and is positioned to fulfil its statutory mission to provide stability and ongoing assistance to the secondary mortgage market across the economic cycle, in particular during periods of financial stress.*"[19]

In this context, in 2018 the FHFA initially proposed a rule for a post-conservatorship regulatory capital framework. The final rule was adopted in December 2020, in which, among other measures, the risk weight floor on senior retained CRT tranches was 10% (FHFA (2020a)). Moreover, the risk-weighted assets of a retained CRT exposure were subject to adjustments to reflect loss-sharing effectiveness, loss-timing effectiveness, and the difference in the fungibility between CRT and equity capital, ensuring that the capital relief afforded by the CRT appropriately reflected the credit risk retained by the GSE.

In 2022, in an amendment to the final rule, FHFA simplified the entire process by removing the "overall effectiveness adjustment" to its retained CRT exposures and lowered the prudential risk weight floor to 5% (from 10%). FHFA mentioned two reasons for this change (FHFA (2022a)):

- First, the 10% floor on the risk weight assigned to a retained CRT exposure unduly decreased the capital relief provided by CRT and reduced an Enterprise's incentives to engage in risk transfer. This occurred partly because the aggregate credit risk capital required for a retained CRT exposure was often greater than the aggregate credit risk capital required for the underlying exposures, especially when the credit risk capital requirements on the underlying whole loans and guarantees are low or the CRT is seasoned.
- Second, the 10% risk weight floor discouraged CRT through its duplicative nature. The operational criteria for CRT, which stated that FHFA must approve each transaction as being effective in transferring the credit risk, as well as the GSEs' own ability to mitigate unknown risks through their underwriting standards and servicing and loss mitigation programs, lessened the need for a tranche-level risk weight floor as high as 10%.

The 2022 Final Rule was subject to a consultation phase, and while commenters were generally supportive of FHFA's proposed amendments, the spectrum of comments was quite diverse.

On one end of the spectrum, some participants recommended rejecting the proposed amendment and maintaining the 10% risk weight floor, either because a 5% risk weight floor would weaken the financial resilience of the GSEs, or because it would increase leverage at the GSEs which would increase insolvency risk, and t FHFA should not balance incentivising CRT with safety and soundness when considering capital standards.

On the other end of the spectrum, other participants considered the CRT requirements were too stringent even if the risk weight floor was removed (equivalent to setting it at 0%).

In the middle were those commenters recommending that FHFA apply a CRT risk weight floor closer to the actual risk, on a sliding scale such that the risk weight floor decreases as credit risk becomes smaller. A few others suggested that the floor should reflect an exposure-level analysis and perhaps be functionally related to economic variables such as seasoning or house price appreciation.

[19] https://www.fhfa.gov/news/fact-sheet/final-rule-on-enterprise-capital

Most commenters supported lowering the CRT risk weight floor to 5%, saying this would better align regulatory and economic values of risk transfer. They believed this change would encourage Fannie Mae and Freddie Mac to share credit risk with private investors, reducing systemic risk. This risk sharing would strengthen these GSEs and benefit the mortgage market by increasing private participation without making mortgages less affordable.

After considering the comments received FHFA issued its final rule amendment with the adoption of the prudential floor of 5% assigned to any retained CRT exposure. FHFA wanted to maintain a floor to avoid the perception that such CRT retained exposure posed no credit risk, and decided on a fixed value, rather than a risk-sensitive one, because it wanted to maintain consistency with other aspects of the CRT securitisation framework that were all designed with a static risk weight floor in mind.[20]

3 US Private Sector Banks

3.1 A diversity of regulatory views

Fannie Mae and Freddie Mac are not the only federal institutions reducing their risk with reinsurance companies. The US Export-Import Bank of the United States (Exim) has been present in this market since 2018. In non-credit related risk transfer, the US is also using reinsurance, since 2012, for the Federal Emergency Management Agency (FEMA), or since 2017 for the National Flood Insurance Program (NFIP). State institutions, such as the California Earthquake Authority (CEA), the Texas Windstorm Insurance Association (TWIA), and Citizens Property Insurance Corporation in Florida have also started using the technique over the last five years. It is thus surprising to see that, while federal government and state institutions are comfortable with the counterparty risk of (re)insurance companies, the regulators of commercial banks (FRS, FDIC and OCC) have effectively restricted unfunded risk transfer transactions (see Table 3.1.1).

The presence of different supervisory authorities in Table 3.1.1 raises the broader macroeconomic question of regulatory competition. A single regulator can be a bottleneck for innovation, whereas multiple regulators provide a more dynamic and responsive system, allowing for the adoption of good ideas and the rejection of bad ones. As explained by White (2017)):

> *"[…] the argument for multiple regulators is an argument for diversity: that in a world where mistakes can be made, having some diversity can reduce the costs of error and increase the likelihood that worthwhile ideas will be able to take root. The idea that diversity can have substantial value for financial regulation is not just an artifact of abstract theorising. There are a number of important, real-world instances where the presence of multiple financial regulatory agencies allowed good ideas to flourish (and where the presence of only a single regulator would have squelched, or at least significantly delayed, the implementation of the idea) and/or helped hasten the demise of bad ideas."*[21]

Table 3.1.1: US Entities using Re-insurance companies for risk transfer

Entity	*Type of Risk Transfer*	*Recognition by regulators*	*Supervisory Authority*
CEA, TWIA, Citizens	Property and Casualty Risk	Yes	State authorities
FEMA, NFIP	Property and Casualty Risk	Yes	US Government
EXIM	Counterparty Credit Risk	Yes	US Congress
Fannie Mae	Mortgage Credit Risk	Yes	FHFA
Freddie Mac	Mortgage Credit Risk	Yes	FHFA
Private Banks	General Credit Risk	No	FRS, FDIC, OCC

Source: Reinsurance Association of America (2024)

[20] In Europe, a debate has recently taken place as to whether a risk-sensitive risk weight floor should apply or whether to maintain a static value (see Duponcheele et al. (2024)). This clear from the various responses to the October 2024 EU consultation on securitisation. By analogy, while FHFA deals with only one asset class (essentially prime residential mortgages), the European debate is concerned with all the asset classes that can be securitised. If a 10% proportion of the standardised approach 40% risk weight of an underlying prime residential mortgage pool was applied, this would result in a proportional risk weight floor of 4%, not dissimilar to the 5% risk weight fixed value applied by FHFA.

[21] The Basel one-size-fits-all fixed value risk weight floor for securitisation is such a case of regulatory 'bad idea' that will take time until the major economies realise it is a source of economic drag (see Duponcheele et al. (2024a) and (2024b)). FHFA's decision to calibrate in 2021 its own risk weight floor at 5% to reflect the high credit quality of the residential mortgages on the Enterprises' balance sheet will be judged by history as a contributor to its demise.

In the case of unfunded CRT, both the US Government and FHFA have approved and actively encouraged (re)insurance protection for the Export-Import Bank, flood insurance coverage, and the housing-related GSEs, whereas the Office of the Comptroller of the Currency (OCC), the Federal Reserve System (FRS) and the Federal Deposit Insurance Corporation (FDIC) are still hesitating whether to allow (re)insurers to provide protection for commercial banks.

3.2 CRT for commercial banks

CRT for US commercial banks, like their European counterparts, is divided between funded and unfunded and is a tool to manage risk and capital aggregations across all asset classes, including corporates, auto loans, credit cards, mortgages, etc. The US regulatory architecture has authorised funded CRT since 2007, the implementation year of Basel II. But this coincided with the GFC, and the use of the technique since has been patchy for structural and regulatory reasons. On the structural side, US banks needed to recapitalize Tier 1 capital during and after the GFC, which dampened the need to transfer risk to reduce capital requirements, compared to banks in other jurisdictions, such as the EU or the UK. On the regulatory side, conflicting interpretations from the Federal Reserve System (FRS) resulted in periods where some transactions were executed, to periods with virtually no trades. However, in September 2023, the FRS brought clarity to the treatment of credit linked notes (CLNs)[22], which resulted in new CRT transactions. This guidance coincided with a July 2023 Notice of Proposed Rulemaking (NPR) to implement the 'Basel III Endgame', which proposed to require that some banks have much higher capital requirements than under the current system; CRT would be a tool to manage this increase.

This generated a resurgence of interest in CRT transactions from US banks, which found a pre-existing sophisticated investor base of credit funds, hedge funds, pension funds, asset managers and (re)insurance companies, which know how to price and invest in the CRT transactions of the housing-related GSEs. In that sense, the OCC, FRS and FDIC benefit from a ready-to-start investor base created by the FHFA's work.

Nevertheless, unlike FHFA, which decided to access the (re)insurance market at inception of the CRT Programs, the existing rules of the OCC, FRS and FDIC do not explicitly allow 'Unfunded' CRT with (re)insurers. The rules depend on a definition of 'eligible guarantor' in Part 217.2 of Regulation Q (Title 12, Chapter II, Subchapter A), which states (emphasis added):

> *"Eligible guarantor means:*
>
> *(1) A sovereign, the Bank for International Settlements, the International Monetary Fund, the European Central Bank, the European Commission, a Federal Home Loan Bank, Federal Agricultural Mortgage Corporation (Farmer Mac), the European Stability Mechanism, the European Financial Stability Facility, a multilateral development bank (MDB), a depository institution, a bank holding company, a savings and loan holding company, a credit union, a foreign bank, or a qualifying central counterparty; or*
>
> *(2) An entity (other than a special purpose entity):*
>
> *(i) That at the time the guarantee is issued or anytime thereafter, has issued and outstanding an unsecured debt security without credit enhancement that is **investment grade**;*
>
> *(ii) Whose creditworthiness is **not positively correlated** with the credit risk of the exposures for which it has provided guarantees; and*
>
> *(iii) That is **not** an insurance company engaged predominately in the business of providing credit protection (such as a **monoline** bond insurer or re-insurer)."*

The intention of the legislation is clear. On one hand, paragraph (i) is positive criteria about the financial strength of the counterparty, requiring the issuance of investment grade debt, since the U.S. implementation of Basel prohibits reliance on ratings. On the other hand, paragraphs (ii) and (iii) are exclusion criteria, with (iii) being about the monoline business model which was a source of problems for banks during the GFC (with the

[22] Extract from A&O Sherman (2024): "*In the U.S., bank capital rules are codified in Regulation Q (Capital Adequacy of Bank Holding Companies, Savings and Loan Holding Companies, and State Member Banks) ("Regulation Q"). On September 28, 2023, the FRB released certain FAQs on the use of CLNs under Regulation Q. The FAQs provide that properly structured CLNs issued by SPVs are capable of being synthetic securitisations under Regulation Q and that the related collateral is capable of being a credit risk mitigant that can reduce the bank's capital requirements under Regulation Q. The FAQs also provide that CLNs directly issued by banks do not satisfy the requirements of a synthetic securitisation under Regulation Q. However, the FRB has stated in the FAQs that directly issued CLNs may be capable of achieving capital relief under Regulation Q if the FRB grants relief under its reservation of authority powers. Where the FRB has granted relief to a bank under its reservation of authority, it has generally provided that the relief applies to all substantially identical bank issued CLN transactions up to an aggregate outstanding reference portfolio principal amount of the lower of the bank's total capital or USD20 billion.*"

collapse of MBIA, AMBAC and others), and (ii) a catch-all case of quasi-monolines. While highly regulated and highly diversified (re)insurers are not excluded in the current wording, they are not 'explicitly' authorised under Regulation Q and are effectively excluded because insurance companies do not typically issue debt; this function is carried out at the holding company parent level.

This is in contrast with the Basel framework that explicitly permits (re)insurers as part of the credit risk mitigation in CRE 22.76 (emphasis added), as long as its credit quality is better than the protection buyer's:

> *CRE 22.76: "Credit protection given by the following entities can be recognised when they have a lower risk weight than the counterparty:*
> *(1) Sovereign entities, PSEs, multilateral development banks (MDBs), banks, securities firms and* ***other prudentially regulated financial institutions with a lower risk weight than the counterparty****;*[Footnote 11] *"*

By using the terminology 'prudentially regulated', Basel is concerned with the capital of an eligible guarantor and thus with its financial strength. The language 'with a lower risk weight' ensures that with a 'relative' level of financial strength based on the protection providers rating, the guarantor will add stability to the counterparty.

The footnote 11 in CRE 22.76 further stipulates:

> *"A prudentially regulated financial institution is defined as: a legal entity supervised by a regulator that imposes prudential requirements consistent with international norms or a legal entity (parent company or subsidiary) included in a consolidated group where any substantial legal entity in the consolidated group is supervised by a regulator that imposes prudential requirements consistent with international norms. These include, but are not limited to,* ***prudentially regulated insurance companies****, broker/dealers, thrifts and futures commission merchants, and qualifying central counterparties as defined in CRE54."*

While Basel explicitly recognises insurance companies as potential eligible guarantors, it does not take position on the diversification of the business model of such 'prudentially regulated insurance companies'. There is no explicit reference to the exclusion of monolines or quasi-monolines.

3.3 Unfunded CRT: avoiding the 'monoline' business model

It is thus in the context of the implementation of Basel Endgame, that prior to the publication of the NPR, US Representative Blaine Luetkemeyer of the Committee on Financial Services asked in June 2023 the Chair of the Board of Governors of the FRS, Jerome H. Powell, whether the incoming NPR would contain language permitting (re)insurers to provide CRT, thus providing US banks with meaningful capital relief (emphasis added):

> *"Chair Powell - Last month, during this Committee's hearing on "Oversight of Prudential Regulators," Vice Chair for Supervision Michael Barr mentioned that, this summer and working with the other federal banking agencies, you plan to publish a Basel III end game proposal. I have been told that your staff and the staff of the other federal banking agencies have been made aware that* ***(re)insurers can be a vital source of capital through Credit Risk Transfer,*** *something that is more widely used in other jurisdictions to mitigate and dampen risk to banks. As you prepare your Notice of Proposed Rulemaking (NPR), will you consider* ***adding language to permit (re)insurers to provide Credit Risk Transfer*** *and provide U.S. banking institutions with meaningful capital relief for transferring credit risk to qualified (re)insurers?"*

In December 2023, Powell provided a written response, restating that the rules would not change (emphasis added):

> *"Under the current capital rule, banking organizations may recognize certain methods to mitigate credit risk, such as qualifying guarantees, credit derivatives, and collateral for risk-based capital purposes if they meet certain conditions. To be an eligible guarantor under the current capital rule, the guarantor needs to meet certain criteria to help ensure it can assume credit losses. For example, an eligible guarantor must have issued outstanding debt that is investment grade. In addition, to address concerns regarding* ***wrong-way risk****, credit protection provided by an insurance company engaged predominately in the business of providing credit protection, such as a* ***monoline*** *bond insurance company or reinsurance company, does not qualify as an eligible guarantor. The recently issued notice of proposed rulemaking would not amend the definition of eligible guarantor."*

This written response provided some insight into the US regulators' views, and how the 'cultural' across-the-board ban on (re)insurance companies comes from an apprehension about the 'wrong-way risk'. And while this concern would be relevant with some types of insurance companies, the monolines or quasi-monolines, Powell's response invited different perspectives. In particular, whether it makes economic sense for the US to ban de-facto all (re)insurance companies, just to catch the very few with a 'wrong-way risk'. This debate also included discussion on whether an 'explicit' authorisation on (re)insurers addressing 'wrong-way risk' would be preferable to an 'implicit and cultural' ban on all (re)insurers.

As a result, in January 2024, the Reinsurance Association of America (RAA) sought from the US banking regulators, a revision of the proposal for diversified (re)insurers (emphasis added):

> *"include clarifying language regarding a bank's ability to transfer credit risk to prudentially regulated, well-capitalized* ***property and casualty insurance and reinsurance companies*** *("insurance companies") and receive significant capital relief as a result, specifically to:*
> 1) ***Explicitly permit*** *prudentially regulated, well-capitalized insurance companies to provide credit protection to banks by clarifying that insurance companies are "eligible guarantors," as well as making certain clarifications to the definition of an "eligible guarantee"; and*
> 2) *Adopt tiered risk weights to provide meaningful capital relief to banks for transferring credit risk to prudentially regulated, well-capitalized insurance companies."* (RAA (2024a))

The RAA followed this letter by a presentation to the authorities stating that the current drafting of the NPR put US banks at a competitive disadvantage compared to EU banks, and that the language of the US regulations should:

> 1) *"Clarify that an 'eligible guarantor' or its parent company can issue investment grade debt or have a publicly traded security outstanding*
> 2) ***Adopt tiered risk weights to provide banks with meaningful capital relief for transferring risk to well-capitalized, prudentially and highly regulated (re)insurance companies****."* (RAA (2024b))

While the first point addressed the point that effectively limited reinsurers from satisfying the requirements to be an eligible guarantor, the second point made it 'explicit' that (re)insurers could be 'eligible guarantors'.

Box: What about AIG During the Global Financial Crisis?

In the press, one often sees a reference to AIG's near-collapse to justify without further-a-do the fact that (re)insurers should not provide credit protection to banks. According to the RAA, this is a misinformed view because:

1) *"In 2008, AIG was a federally regulated holding company, whose collapse was caused primarily by its UK-based, AIG Financial Products subsidiary which was not an insurance company or subject to insurance regulation.*
2) *AIG's Property & Casualty companies did not cause or contribute to AIG's near-collapse, did not receive federal assistance, and maintained strong capitalization that was not at risk from the activities of AIG Financial Products*
3) *Reinsurance is largely uncorrelated to financial markets in times of stress, as demands for payment are conditioned on a loss event specified under the reinsurance contract, which are rarely correlated with economic cycles or financial crises*
4) *The Global Financial Crisis was not a major event for the P&C insurance industry."*

Source: (RAA (2024b))

In September 2024, Vice Chair for Supervision, Michael S. Barr, mentioned in a speech that "*regulated entities that are also subject to substantial regulatory discipline and substantial transparency requirements*" could also benefit from a reduced risk weight, and would no longer need to be publicly traded. Examples of such regulated entities mentioned in the speech were "*regulated financial institutions that are not banks, such as pension funds, certain mutual funds, and foreign equivalents, that are investment-grade but not publicly traded"* (Barr (2024)). While (re)insurance companies would qualify as 'regulated financial institutions', they are not explicitly mentioned in the speech. At the time of writing, no explicit statements have been made by the authorities as to whether (re)insurers will be added as 'eligible guarantors' either in the current rules (via an amendment) or via an overhaul of the rules (via Basel Endgames). Furthermore, given the changes in leadership at the FRS, OCC,

and FDIC under the new presidential administration, the Basel Endgame is likely to be reproposed, which will further extend the timeline under which the US implements amendments to its current framework.

The US has a low default history for (re)insurance companies with a **multiline** business model; a highly rated, diversified business model supports consistent history of (re)insurers meeting claim obligations.

Furthermore, allowing multiline (re)insurers to provide CRT protection would enhance the diversity of the reinsurers portfolio as the credit risk is uncorrelated to core property and casualty exposures, thus strengthening the balance sheet of such (re)insurers. (Re)insurers hold the risk to maturity and do not incur mark-to-market volatility. CRT tranches protected by (re)insurers are not financed with leverage[23] and thus there is no flow-back risk (the process by which investments financed by banking leverage come back into the banking system as a whole when the transaction unwinds upon triggers being hit[24]).

Assuming arguendo that the U.S. Basel rules are modified to address the barriers to protection provided by multiline reinsurers described herein, some state insurance regulations require financial guaranty insurance be provided by monoline entities and explicitly define the types of permissible guarantees that may be written.[25]

To conclude, as mentioned in Bisanz (2024), many lessons learned from GSEs could be exported to other areas of the financial world. If the US rules applicable to banks were to change or be clarified with an 'explicit authorisation' so that the US becomes 'Open for Business' for (re)insurers to provide unfunded CRT to US banks with meaningful capital relief, the financial stability of US banks would be strengthened.

4 The European Union

4.1 The rise of Significant Risk Transfer (SRT)

Top European policymakers have argued recently that European Union (EU) countries need "massive private investments" to advance the climate and digital transformation agenda, fund defence and generate both higher productivity and competitiveness. EU banks are central to intermediating savings from the EU and beyond by providing the additional debt finance. This is the result of the substantial preponderance of local bank financing in the EU debt markets (Duponcheele et al. (2024c)). EU banks are now recognised as well capitalised, with Core Equity Tier 1 (CET1) that has more than doubled since the (GFC, to reach an all-time high of 16% at end of 2023 (up from 6% in 2011). Their shock absorbency capacity has also been confirmed in stress tests. Yet their competitiveness remains lower than their global peers (Ormezzano (2024)). The price-to-book ratio of most major EU banks is and has been for over a decade below one. Thus, raising additional capital to lend more is not a route that can realistically be taken to achieve the macro-economic objectives of financing "massive private investments" called for by policymakers.

As an alternative to raising additional capital, the existing capital of EU banks needs to be used more efficiently: it needs to acquire velocity (Duponcheele (2024)). Securitisation achieving significant risk transfer is the only scalable technique that can generate 'capital velocity', i.e., that permits a bank to redeploy its risk capacity in new lending. This can be done safely as long as 'significant risk transfer' occurs, i.e., the reduction in the credit risk to the bank is greater or equal to the capital relief being granted.

While it has existed since the 1990s, the European (EU+UK) synthetic (or "on balance-sheet") SRT market has notably expanded in the last few years, and the global SRT market was predominantly European till 2021. At the same time, the volume of traditional (cash) SRT securitisation transactions stagnated (González and Triandafil (2023)).

---

[23] See Duarte et al. (2024) about use of leverage in the funded CRT market in the US.

[24] 17 Dec 2024 Q&A (emphasis added) following the speech by Claudia Buch, Chair of the Supervisory Board of the ECB, at the press conference on the 2024 SREP results and the supervisory priorities for 2025-27.

Question from a journalist: "*And then the other question on significant risk transfers [SRTs], I mean the capital relief type. I was wondering if you could confirm that you now will be shortening the period that banks have to apply in advance to get these. Why are you doing that? I assume it's because you like SRTs? And if you have any words of warning to banks on this front? I'm thinking specifically about leverage employed to buy SRTs, so whether risk is not actually leaving the financial system, but is getting more and more complicated.*"

Answer from Claudia Buch: "*As to your second question on the significant risk transfers, this is related obviously to securitisation and we generally think that securitisation can be a useful instrument to move risks to the part of the financial system where they can be better borne than on banks' balance sheets. But at the same time, of course,* ***we need to make sure that there are no spillover effects on the banking sector*** *– this is a bit the second part of your question.* ***So who's financing these significant risk transfers and could there be amplification effects in the financial system?*** *Of course, we need to monitor this very closely.*" (Here)

[25] i.e. See NY Ins. Law § 6901 and § 6904.

This growth in synthetic SRT securitisations was enabled by the EU's regulatory framework established in 2006-2013 (CRD and CRR), the Single Supervisory Mechanism (SSM) set up in 2014, and the European Banking Authority's (EBA) 2014 supervisory guidelines clarifying significant risk transfer criteria.[26] The implementation of Basel III, including some European adaptation of the rules, further incentivised banks to use SRT transactions to free up "risk weighted assets" (RWAs) rather than raising costly equity.

In 2020, the publication of STS regulations specific to "on balance-sheet" transactions and later the approval of updated capital regulations for banks (CRR3) further boosted the market by allowing a higher capital relief for the senior tranche of STS transactions, i.e., the tranche retained by the bank protection buyer.

As stated by the Council of the European Union (CEU) Financial Services Committee (FSC), there is now a "*distinctive structural feature of EU securitisation markets: banks in the EU actively use synthetic securitisation for capital relief purposes. In fact, the EU has been successful at restarting synthetic securitisation, with significant growth in recent years partly aided by regulatory changes (in particular, the eligibility of synthetic securitisation for STS purposes), and it is now the only jurisdiction featuring a sizeable synthetic securitisation market with active participation of non-bank investors*". (CEU (2024))

4.2 Synthetic STS: an example of the EU adapting the Basel rules

As often mentioned by US regulators, Basel is not a treaty; it is an agreement and, as such, has been adapted by all jurisdictions, including the EU. The political will to adapt the Basel rules to European needs has been evident in several past reforms. Examples include (i) the European Parliament's introduction of the SME Supporting Factor, (ii) the European Commission's rewording of the standards to change the Basel hierarchy of approaches for bank securitisation capital (reducing Europe's reliance on external ratings), (iii) the European Supervisory Authorities (ESAs) development of a simple, transparent and standardised (STS) securitisation framework. But clearly, further reforms are necessary to enable the European securitisation market to contribute significantly to European economic growth.

The current inefficiency in the European STS securitisation framework finds its origins in the miscalibration of the 2013-2014 Basel rules, that generated extraordinarily high capital requirements for securitisation positions, often expressed in multiple of the underlying pool capital requirement. Initially, Europe proposed to apply numerical parameters in the Basel capital requirement formulae to European securitisations as if they had experienced the default rates of US securitisations. This approach failed to take into consideration the fundamental characteristics of both European asset underwriting and the structuring of securitisation transactions. European central bankers (ECB and BoE) decided to propose adjusted capital requirements that sought to reflect those characteristics of traditional European securitisations and assets which had led to their exceptionally robust performance and low to no defaults during the GFC.

The sharpest criticism came from Mr Yves Mersch, ECB Executive Board Member, who declared in October 2014:

> "*Since the start of the crisis, the default rates of European ABS were on average between 0.6% and 1.5%. In the US over the same period, they were on average 9.3% to 18.4%. […] It makes little sense to calibrate the international rules solely on the basis of US experiences. It would be like calibrating the price of flood insurance for Madrid on the experience of New Orleans. The current rules lump all ABS together and are much too conservative. They effectively question their existence."* (ECB (2014))

In parallel with Europe's own work on defining the characteristics of structurally safe securitisations led by the EBA, the International Organisation of Securities Commission (IOSCO)'s intervention led to an IOSCO/BCBS taskforce set up to identify the criteria defining 'good' securitisations. These were to be labelled 'Simple, Transparent and Comparable' (STC). A joint consultation on the matter was launched in July 2015. Later, in November 2015, the BCBS also launched a consultation on the 'p'-factor. This is the number that drives the distribution of capital requirement to securitisation tranches held by banks and the capital surcharge under the current design of the capital formula. The consultation wanted to investigate how and to what extent the p-factor could be reduced. It is interesting to note that, in the final 2016 rules for STC securitisation for IRB banks, the parameters A, B, C, D and E that were said to have been calibrated on historical data were, seemingly arbitrarily, all slashed by half. This Alexandrian approach to a mathematical Gordian knot made it clear to

[26] A EBA discussion paper on SRT (EBA (2017)), followed by a report on the subject (EBA (2020) brought additional clarifications.

research-inclined experts that the pretence of calibration based on data had been abandoned (Duponcheele et al. (2014a)).

By 2015, what mattered to the European authorities was no longer to give credibility to a Basel calibration produced by US regulators for US securitisations of US asset pools, but to modify its output to reflect European realities. Consequently, the p-factor of the capital formula was also halved, from 1 to 0.5, for the Standardised Approach for those securitisations meeting the requirements of the new standard: "simple, transparent and standardised" ("STS") Europe's version of STC. The quantum of this reduction was introduced without any particular mathematical or statistical justification.

The same approach was used for setting the fixed-value one-size-fits-all risk weight floor. Originally set at 20% risk weight in the December 2012 Basel proposals, it was lowered to 15% risk weight in the December 2013 proposals. This was clearly too high, especially for European prime residential mortgages, and the value was then reduced by a third, again to a one-size-fits-all 10% risk weight for all STC/STS securitisations.

However, as the remit of IOSCO is about 'securities', the 2016 IOSCO/BCBS STC rules only applied to traditional securitisations which generate bonds. There was no synthetic specific 'Basel STC' framework.

Notwithstanding the reforms introduced by the EU Securitisation Regulation (Regulation (EU) 2017/2402 – the "SECR") that came into force on January 2019 and the attendant amendments to the CRR (and the Solvency II capital regime for (re)insurers) the European traditional securitisation market remained weak. Looking at ways to broaden and deepen the European capital markets more generally, but including the securitisation market, the European Commission set up a High Level Forum (HLF) asking it, amongst other things, what additional steps could be taken to scale up securitisation in Europe. In June 2020, the forum produced a report containing seven recommendations specifically addressing securitisation. One (recommendation 5) was to apply "*equivalent treatment to cash and synthetic securitisations of all asset classes, and including their STS execution*" and stated that "*the Commission is invited to assess the need to further (i) expand the scope of STS synthetic securitisations and (ii) apply the same regulatory treatment to Synthetic and Cash securitisation including the preferential capital treatment.*" (HLFCMU (2020))

The European Commission declined at the time to move forward with the other six recommendations made by the HLFCMU experts. However, it decided to implement in full the recommendation on the creation of a 'synthetic STS framework', despite such framework having no Basel equivalent. As the publication of the HLF report corresponded with the economic shock resulting from the COVID emergency measures the Commission came forward within one month of publication with the 'Capital Markets Recovery Package', dubbed by the industry the 'COVID Quick Fix'. It included in its final form four measures, including a framework allowing synthetic securitisations to achieve STS status and attendant capital benefits. This was achieved through amendments to both the SECR and CRR.

The rationale for the amendments to the CRR halving the p-factor and reducing the risk weight floor for banks holding the senior tranche of synthetic STS was the potential to free up an amount of capital more proportionate to the underlying economic risk transfer, enabling them to lend more at a critical time for the world economy.

However, the amendments made in a hurry to the SECR to implement the COVID Quick Fix would have unintended consequences for insurers and reinsurers providing credit protection to banks for their synthetic SRT transactions through their core insurance business: their access to the European SRT market became de facto restricted to the non-STS market. For them, the EU became 'Closed for Business' for STS.

4.3 Unfunded protection in STS regulations

Because of the urgency of the situation when the COVID Quick Fix was passed, policy makers delegated the formulation of the criteria for synthetic securitisations eligible for STS status to the EBA. In turn, the EBA elected to focus, amongst other aspects, on ensuring that receipt by protection buyers from protection sellers be free of any counterparty risk. This was notwithstanding that the existing SRT provisions derived from the CRR are designed fully to account for counterparty risk. Although a number of market participants urged the EBA and the European Commission not to follow this course, the rules provided that only synthetic securitisations with zero counterparty risk could qualify as STS. This was achieved by only allowing "funded" synthetic securitisations where the protection seller's obligations are collateralised by cash or certain high-quality securities and securitisations where the unfunded protection sellers are deemed by the CRR to represent no counterparty risk (i.e. 0% risk weight). These would broadly be sovereigns, multilaterals and quasi-sovereigns.

In addition, the EBA also required these zero weighted counterparties to be AAA rated.

This decision restricted the insurance industry to access to STS synthetic securitisations as only unfunded protection sellers from their liability side. In fairness, EBA (2020) contains a passing reference that insurance companies[27], which started their first transaction in 2018, represented less than 1% of the SRT market in Europe. During the COVID period, their unique business model was not considered as part of the design of the synthetic STS criteria.

Actually, the business model of insurance undertakings does not accommodate cash collateralising insurance contracts and the exclusion of unfunded insured synthetic from the STS should be challenged, as non-life insurers are prudentially regulated and less sensitive than banks to financial stability risk.

The EBA might have been concerned by the impact on financial stability of allowing unfunded synthetic securitisations to be STS and a possible capital shortfall in the banking system in the event of default by securitisation counterparties. It is the contention of this paper though that financial stability, on the contrary, would be enhanced by wider participation of well-regulated insurance and reinsurance companies in the STS synthetic securitisation SRT market.

Secondly, by requiring even public entities to be AAA to provide unfunded STS synthetic protection, the rules divide Europe between jurisdictions that can participate in this market and those that cannot based on their country ratings. Broadly speaking, southern and eastern jurisdictions are cut off from being able to help their banks in this way, whilst northern and western jurisdictions are not.

Aware that (re)insurers acting as protection credit providers had been excluded of part of the European SRT market, the European Commission included specific questions on this issue (Question 7.4 to 7.11) in its October 2024 *Targeted consultation on the functioning of the EU securitisation framework* (EC (2024)). In particular, Question 7.4 asked respondents:

> *"In the case of an unfunded credit protection agreement where the protection provider provides no collateral to cover his potential future liabilities, should such an agreement be eligible for the STS label, to facilitate on-balance-sheet STS securitisations?"*

whereas Question 7.6 asked respondents:

> *"What would be the implications for EU financial stability of allowing unfunded credit protection to be eligible for the STS label and the associated preferential capital treatment?"*

Question 7.4 of the consultation was a simple vote with three possibilities: "Yes", "No", or "No opinion". Out of the 131 responses filed as per the official template, 58 did not vote and 73 voted. Out of those, 48 (66%) said "Yes", 19 (26%) voted "No opinion", and 6 (8%) voted "No".

Among the industry respondents that voted "Yes" were both European STS verification agents (Prime Collateralised Securities (PCS), STS Verification International GmbH (SVI)[28])), the European, Austrian, Dutch, French, German, Italian, Polish and Portuguese Banking Associations or Federations, the German Insurance Association, the leading European[29] or international business associations (Paris Europlace, IACPM, AFME, AIMA/ACC), eight EU bank SRT issuers, three insurance companies that are SRT underwriters, and many other institutions or associations, some of which answered anonymously. Particularly important are the responses from Austria, Italy, Poland, and Portugal: countries whose banks have difficulties to qualify for the STS label due to the 2021 funding requirement, and that would benefit directly if insurance STS were allowed.

While the overwhelming majority of respondents to question 7.4 answered "Yes", to rectifying the current situation, it is interesting to note two responses from the few regulatory authorities that provided a reasoned explanation for their choice, i.e., Spain ("Yes") and France ("Don't know").

In the joint response from Banco de España (BDE) and Comisión Nacional del Mercado de Valores (CNMV),

[27] Paragraph 35, page 19: "*Insurance companies form only a minority of the investor base (less than 1%).*" EBA (2020)

[28] Technically, the response was filed by True Sale International Gmbh (TSI), and SVI is a 100% subsidiary of TSI.

[29] Insurance Europe, the European insurance and reinsurance federation, provided its support to the "unfunded STS" issue, in an answer to Chapter 10 (Insurance) of the EC consultation, rather than as a vote in Chapter 7 (STS criteria).

the Spanish authorities focused on the fact that the EC did not mention who should be the unfunded credit protection providers, and clarified their support only for EU insurance:

> *"The protection provider should be an EU insuring company subject to a minimum credit rating. Expanding the eligibility to banks would be against the objective of transferring risks outside the banking system. Expanding the eligibility to any entity other than EU insuring companies would create financial stability concerns, as they might be entities that are not subject to strict prudential requirements and the capital relief achieved by the originating bank would vanish abruptly in case of a default of the protection provider."* (Row 73 in EC (2025))

The technical solution to amend the existing SECR to allow (re)insurers as unfunded credit protection is very simple legislatively speaking. It only requires adding a point (d) in SECR 26e(8) to the list of authorised providers by listing regulated multiline insurance and reinsurance undertakings as defined in the Insurance Directive (2009/138/EC) (Solvency II), with additional safeguards if needed (such as a minimum rating or other mechanism). An example of such amendment is provided in Paris Europlace (2024a).

The joint response from the French authorities (Ministère de l'économie, des finances et de l'industrie, Autorité des marchés financiers (AMF), Autorité de contrôle prudentiel et de résolution (ACPR), Banque de France (BdF)) confirmed that the market is indeed fragmented between non-STS and STS:

> *"French authorities reckon that, from 2021, the necessity of collateralization lead insurers to no longer provide unfunded credit protection on the synthetic STS market, turning them towards the non-STS synthetic market. The implications for EU financial stability of such reopening depends on several parameters that should be explored in detail:*
>
> *(i) the already existing activities of unfunded credit protection on the non-STS market,*
> *(ii) the type of actors that provide such protections,*
> *(iii) the impacts in terms of market behaviour which such an opening of the STS label could imply,*
> *(iv) the transfers of risk involved between originators (mostly banks) and protection providers (mostly (re)insurers), and*
> *(v) the safeguards that such an opening would necessary need.*
>
> *More broadly, the opening of such protections would send a strong signal and therefore, must be assessed carefully with regards to financial stability implications."* (Row 27 in EC (2025))

The main prudential benefits of STS compared to non-STS for SRT issuing banks are the lower value of the p-factor (enabling to lower the attachment point of the retained senior tranche, lowering the accounting cost of the transaction) and the lower risk weight floor (lowering substantially the capital requirement of the retained senior tranche, improving substantially the risk-adjusted-return-on-capital (RAROC) of the transaction).

For non-STS, the difference between a funded or unfunded transaction is the presence for the latter of an additional counterparty risk, on an exposure amount limited to the non-senior tranches. The same logic would apply for STS. The EC Question 7.6 on financial stability only in the context of STS seems odd, and a justification a posteriori for a drafting issue that was never discussed during the legislative process for the CMRP. Indeed, the issues and concerns on financial stability are the same for non-STS and STS. This paper contends that the presence of (re)insurers as unfunded credit protection providers for SRT transactions strengthens the financial stability of banks, irrespective of their STS status, and thus, the EU authorities should open STS status to all SRT synthetic transactions, as was always intended prior to the introduction of the CMRP.

4.4 Strengthening financial stability with unfunded SRT, STS and non-STS

(Re)insurers have a well-established presence in the unfunded non-STS SRT market. But the role of (re)insurers is much wider as stated by the German Insurance Association, the Gesamtverband der Deutschen Versicherungswirtschaft e.V. (GDV) in its response to the EC consultation:

> *"Note that EU insurers already provide banks with uncovered credit protection for individual assets or entire portfolios, thereby playing an important role in the risk and capital management architecture of the European financial system."* (Row 38 in EC (2025))

There has not been any indication of increasing financial stability risks on those activities. Risks to overall financial stability are macro-prudential risks that arise from the accumulation of vulnerabilities at the micro-prudential level. The question whether unfunded synthetic SRT transactions with the STS label could result in an excessive growth of this market segment, leading to a concentration of financial stability risks, is therefore a legitimate risk that should be supervised.

Examples of potential financial stability risks could include situations where a majority of those transactions were all backed by a handful of counterparties, or counterparties in the same jurisdiction, or counterparties all exposed to correlated risks. A concern expressed by bank supervisors has also been that providers of protection may be unable, or unwilling to provide protection at times where it would be most needed by the banking sector. Fundamentally, the answer to the question depends on the type of counterparty that provides the uncollateralised credit protection.

Counterparty risk, a micro-prudential risk, is covered by the CRR, derived mainly from the Basel rules and developed under the leadership of the European Banking Authority (EBA), the EU micro-prudential bank regulator. The CRR contains the Credit Risk Mitigation (CRM) framework. This framework contains provisions under which the exposure of the bank to the provider of unfunded credit protection must be capitalised, as a function of the credit quality of the counterparty, expressed by its risk weight. In the case of securitisation positions, Article 249(3) of the CRR ensures that corporate entities acting as unfunded credit protection providers (Article 201(1)(g)) are themselves well capitalised entities having an external rating equal to CQS 2 or better (i.e., AAA, AA and A) when a transaction is signed[30]. Additionally, such rating should be maintained at CQS 3 or better (i.e., AAA to BBB) during the life of the transaction if the credit protection is to remain uncollateralised.[31]

But in the case of SRT transactions, there is an additional layer of control in the EU: the obligation of significant risk transfer assessment by supervisors. Each synthetic securitisation that results in capital relief needs to be pre-approved by the relevant national competent authority (NCA), or in the case of large banks supervised by the ECB under the Single Supervisory Mechanism (SSM), by the joint supervisory teams composed of staff of the ECB and the NCA. If the competent authorities had doubts as to the capacity of the unfunded counterparty to comply with its commitment, it would determine that the credit risk would not be effectively transferred, and the SRT assessment would be negative. This would result in the banks achieving no capital benefit (and, in all likelihood, renouncing the transaction).

The most important layer of control resides with the risk management function of the SRT issuing bank. It is duty bound to consider issues relevant to the bank's overall portfolio (such as large exposure limits) and make its own assessment of the wrong-way risk (correlated risk) of the counterparty. This is why most banks will not transact with monolines and prefer instead well-diversified (re)insurers. This business model preference is an additional layer of safety in addition to the capitalisation and ratings criteria found in the CRR.[32] An anonymous supervisory entity that contributed to the EC consultation, in a question related to financial stability implication of allowing (re)insurers to assess the STS market on an unfunded basis, stated that diversification was a key mitigant:

> *"The interlinkage between banks and insurers could increase and it should be ensured that the investments of insurers are sufficiently diversified that the risks associated with securitisations would not have detrimental effects on their business model."* (Row 96 in EC (2025))

To avoid market concentration in a handful of counterparties[33], or counterparties in the same jurisdiction, examples can be taken from the FHFA's efforts to increase the number of (re)insurers in the GSEs' unfunded

[30] Some respondents to the EU consultation have expressed a wish to strengthen this rating: "*CQS 1 at the outset for STS compliance could stimulate a safe approach, keeping in mind that minimum counterparty rating for cash deposit collateral is CQS3.*" (ING Group response to the EU consultation, Row 114 in EC (2025))

[31] Since 1st January 2025, the implementation date of the third version of the CRR, called CRR3, banks using the IRB approach will no longer be subject to a minimum rating requirement for their credit protection providers, assessing instead their PD to obtain the appropriate capital requirement.

[32] Some respondents to the EC consultation proposed to put a limit (such as 20%) of the risks taken by a particular business line, while others considered such limit to be too crude as a measure of the business model, while others stated that insurance companies have access to the re-insurance market to manage their overall credit risk. Others stated that the market discipline associated with maintaining an external rating at CQS1 and CQS2 level was sufficient to assess the resilience of an insurance company.

[33] The Portuguese Banking Association, the Associação Portuguesa de Bancos (APB), stated that while supporting the participation of (re)insurers on an unfunded basis for STS, it considered "*that having a specific group of investors being able to participate on the market without posting collateral increases the risk of over exposure to this group and to specific players within the group.*" (Row 43 in EC (2025))

CRT programs. The same could apply in Europe, where the growth of the unfunded SRT market will lead to an increased presence of (re)insurers in the EU market.[34]

While the above points are concerned about the mitigants to risks, one should also mention the positive elements that credit (re)insurers bring to financial stability.

Credit (re)insurers play a vital role in the economic fabric of Europe, being central to trade finance, corporate loans, specialised lending, the management of banks' limit on illiquid borrowers, and increasingly relevant – together with capital market investors - to banks' capital management via synthetic securitisation.[35] Their participation in all those markets takes place on an uncollateralised ('unfunded') basis, with the (re)insurers settling in cash the claims as and when they occur. This is a fundamental tenet of insurance that liquid assets, such as cash, are held to honour claims when they arise; they are not to be used as collateral against all potential scenarios of future claims. Furthermore, European (re)insurers providing credit protection in the non-STS securitisation market on an uncollateralised basis are highly regulated and subject to EIOPA rules and NCA oversight. They are also well-capitalised (pursuant to the Solvency II regime), and well-diversified.[36] **They are willing to participate in the European STS market but are not eligible as STS protection providers on an unfunded basis.**

Insurance Europe, the European insurance and reinsurance federation, highlighted the source of sudden SRT market fragmentation:

> *"Some insurers have concerns about the fragmentation of investor landscape in the STS market. For instance, credit insurers, on the liabilities side of their balance sheet, are usually not funded and offer insurance contracts to assume risk without providing security. Before the introduction of the STS synthetic framework in 2021, implemented as part of the Capital Markets Recovery Package (CMRP), credit insurers were able to participate in the synthetic risk transfer market, providing 'capital velocity' to banks (i.e., the capacity for banks to redeploy their capital relief for new lending). The introduction of the new framework fragmented credit insurers' investment landscape, as the newly introduced regulation in the Securitization Ordinance currently does not allow them to participate as protection providers in synthetic STS securitisations in the form of an unfunded and unsecured guarantee."* (Row 55 in EC (2025))

Unlike credit funds, including leverage credit funds[37], credit (re)insurers are a counterparty whose capital requirements are regulated. As set out in greater detail in the answer by the French authorities to the EC Consultation:

> *"As of today, (re)insurers can have a role in synthetic securitisations* [for non-STS], *by providing a guarantee against credit risk. In this configuration, the credit protection agreement takes the form of an insurance contract between the (re)insurer and the entity benefiting from this protection: such a guarantee therefore generates a liability. In the balance sheet, it is regarded as part of the technical provisions."* (Row 27 in EC (2025))

The continued presence of credit (re)insurers during economic crises is an important factor of financial stability. This flows from the fact that (re)insurers remain committed to established business lines throughout multiyear loss and underwriting cycles. They have a hold-to-maturity approach and are only concerned about the correct technical underwriting, syndication and reinsurance of the underlying risk and not much about market price volatilities. In the US, the GSEs' programmatic use of both funded and unfunded CRT demonstrably increases the safety and soundness of the mortgage finance system and bolsters the GSEs' ability to provide liquidity throughout economic cycles. As stated in the contribution of Arch Insurance (EU) dac to the EC consultation:

---

[34] According to an IACPM survey, "In 2024, the number of protections sold increased substantially, with 82 new subscriptions. After syndication, the 14 participating insurers protected in 2024 about €3 bn of SRT tranches. By the end of 2024, the total outstanding insurance protections on SRT tranches amounted at about €6 bn." (IACPM (2025))

[35] Unfunded credit protection is relatively simple and can be executed more quickly than more complex funded structures. Unfunded credit protections have lower operational risk than funded ones.

[36] Well-diversified insurance companies have sophisticated risk managers applying industry standard diversification techniques.

[37] When a leveraged credit fund provides credit protection in a funded SRT to a bank, the collateral is generally borrowed from another bank. This creates a 'flow-back risk' for regulators. As stated in the Arch Insurance (EU) dac contribution to the EC consultation: "*Given the private nature of these funding transactions, it is very difficult to assess the actual exposure of the EU banking system to 'flow-back risk'. This could jeopardise EU financial stability. Unfunded credit protection by insurers means less complex structures, more clarity on 'where goes the risk', strong entities bearing the risk (Solvency II prudentially regulated entities).*" (Row 98 of EC (2025)).

> *"The reinsurance model is fundamentally built on pricing for inevitable catastrophic loss and on proper diversification to ensure resilient risk profile. Mortgage credit protection offers attractive returns and diversification, given the low correlation with the reinsurance's traditional risk exposures. History has shown no great exodus of reinsurers following market disruptions. During the COVID period, reinsurers provided the GSEs with more CRT protection, when funded credit investors retreated."* (Row 98 in EC (2025))

In other words, credit (re)insurers providing SRT or CRT protection to banks have a commitment to long term investment at a less volatile cost, two components at the core of financial stability.

This long-term view across the economic cycle and their need for risk diversification mean that (re)insurers can take risk in longer duration assets such as residential mortgages. Those asset classes are not appealing to credit funds who generally seek to limit their risks to a five-year horizon. Indeed, only 7% of the synthetic SRT market is based on residential mortgages, when the proportion of this asset class on the balance sheet of European banks is greater than 50%. The issue is compounded by the fact that the residential mortgage asset class typically needs STS status to be economic for banks executing SRT transactions. Yet (re)insurers cannot achieve STS status through unfunded transactions. The role of (re)insurers for the European residential mortgage SRT market was highlighted in the Spanish Banking Association, the Asociación Española de Banca (AEB), contribution to the EC consultation.

> *"These types of investors* [(re)insurers] *are key to mobilise assets where institutional investors have less appetite. Institutional investors typically invest at WAL of 5 years, while insurance/re-insurance are capable to invests at longer maturities. As an example, residential mortgages is a very difficult asset class to mobilise through SRT due to the long portfolio WAL (10 to 15 years) and relatively low risk weights. We believe insurance/re-insurance can play a key role to mobilise these assets.*" (Row 71 in EC (2025))

Another important consideration, often overlooked by European authorities focused on IRB banks - the largest SRT issuers- is the fact that many countries in Central and Eastern Europe do not have the Euro as their currency. This was raised by the Polish Banking Association, the Związek Banków Polskich (ZBP) in its contribution to the EC consultation:

> *"The next topic being solved by an unfunded protection is a potential currency mismatch when providing funded protection from jurisdictions where the currency used is different from that of the portfolio. Unfunded guarantees operating under the STS label will therefore increase market competitiveness by expanding the investor base, reducing transaction costs, reducing the cost of capital release and potentially including additional asset classes."* (Row 71 in EC (2025))

Furthermore, because of the unfunded nature of their business model, (re)insurers have no minimum absolute yield requirements as protection sellers, unlike credit funds that have funds to deploy. This was stated in the Munich RE's contribution to the EC consultation:

> *"In contrast to many funded participants in synthetic securitisation, (re)insurers are technical underwriters for own long-term capital. They have no minimum yield hurdles and can deploy capital in longer duration transactions."* (Row 34 in EC (2025))

This enables them to also provide protection at an upper mezzanine level and protect against tail risks at the transaction level. This point was included in the Marsh McLennan's contribution to the EC consultation:

> "*(Re)insurance companies are inherently set up to underwrite and manage risks, including credit risk. Their participation* ***complements the funded market by addressing gaps in demand****, particularly for mortgage portfolios, and mezzanine tranches, and provides a broader base of banks, including those under the Standardised Approach, with more tools to achieve effective risk transfer at efficient pricing.* (Row 45 in EC (2025))

To conclude, until highly regulated, well-capitalised and well-diversified EU and non-EU credit (re)insurers are allowed to provide credit protection to STS synthetic securitisations, the choice of risk-takers is restricted. Broadening this choice would enable banks:

- to broaden the asset classes that are currently used for SRT;
- to complement the funded market by addressing gaps in demand;

- to reduce their costs by increasing diversity of protection providers;
- to have access to high quality regulated counterparties with 'permanent' capital, i.e., that remain active during periods of financial stress and are not sensitive to the same factors of systemic risk;
- to increase capital velocity which directly benefits the European economy, contributing to growth and economic resilience;
- to broaden the number of countries that could use the technique, especially in central and eastern Europe;
- to increase their volumes of SRT STS transactions and transfer more risk away from the European banking system;
- in case of crisis, to benefit from a proven, well-established credit protection framework to limit their credit losses on the protected portfolios, reducing negative impact on their capital adequacy, and helping them to continue lending to the economy.

The participation of highly regulated, well-capitalised and well-diversified (re)insurers on an uncollateralised basis in the SRT market improves financial stability from the perspective of banks. Making them eligible for STS would further improve financial stability in the EU.

While we looked at the issue from the perspective of banks, it is interesting to note the benefits to insurers as seen by banks, in this case the German Banking Industry Committee (GBIC)[38] and True Sale International GmbH (TSI) in their contribution to the EC:

> *"From the (re)insurers' perspective, enabling them to participate in the synthetic 'STS' market on an uncollateralised basis would:*
> - *immediately increase investment opportunities located in Europe;*
> - *give them access to risks from generally higher credit quality securitised assets;*
> - *strengthen quantitatively and qualitatively over the long term the diversification of their credit insurance portfolios."* (Rows 88 and 94 in EC (2025))

The participation of (re)insurers on an uncollateralised basis in the SRT market also improves financial stability from the perspective of (re)insurers by allowing them to diversify the risks they take on their balance sheet. This diversification, in turn, reduces their overall risk.

5 The United Kingdom

5.1 Background on UK unfunded SRT

The UK approach to the use of unfunded SRT has, up to now, been ambivalent. It inherited all the EU rules passed before 31 December 2020 – the end of the Brexit transition period. These included the CRR and SECR. SRT transactions were executed under the Supervisory Statement SS 9/13 originally issued in 2013, but updated several times since then, with its most recent iteration published in July 2020 (BoE (2020). However, EU laws, rules and guidelines passed after the end of the Brexit transition period, were no longer applicable to the UK. This means that the UK CRR and UK SECR do not have the 2021 amendments that the EU introduced, including a synthetic STS securitisation framework. Further, the PRA made clear in its DP 3/23 (referenced below) that it was not minded to support the extension of the UK STS framework to include synthetic securitisations, arguing that it "would not, on the whole, advance its objectives. It would also deviate from the Basel STC standards."

The UK is a very large market for SRT,[39] but all the transactions approved by the UK Prudential Regulatory Authority (PRA) so far have been done in a collateralised (funded) format. Some non-SRT synthetic securitisation transactions were done by UK banks, for the purpose of counterparty limit management, rather than capital relief. As such, they did not require approval by the PRA.

With regards to unfunded SRT, the UK supervisory attitude is different from that of the EU regulators. Although the law authorises unfunded SRT, the PRA let it be known that it looked askance at unfunded securitisations and was not minded to approve capital relief, should a bank bring one to them. This was not a "legal norm" but could be seen as a "cultural norm" which banks would be unwise to challenge.

[38] This includes the Association of German Banks (Bundesverband Deutscher Banken, BdB).

[39] In comparison, more than 20% of the total EU SRT market.

It is also worth noting that, unlike the EU SSM, the UK PRA does not follow an official pre-trade approval process to grant capital relief, but a post-trade approval process. Bearing in mind the financial and arguably reputational cost of a capital relief trade that was denied capital relief, the *ex post facto* only approach of the PRA resulted in no UK bank being prepared to take the risk of being the first to execute an unfunded trade.

This *de facto* rather than *de jure* approach, together with the *ex post* approach to capital relief confirmation, as a practical matter, left UK banks unable to access the generally cheaper (re)insurance industry for protection. But aside from the economic aspects, some UK policymakers have started openly to question whether this cultural approach that went beyond the requirements of the law is sensible.

As of October 2024, six PRA-authorised banks were SRT originators. To the authors' knowledge, no transactions were done on an unfunded basis, save for those done by non-UK international groups with UK subsidiaries where the trade was done to obtain capital relief at the non-UK consolidated level.

In October 2023, the Bank of England launched a Discussion Paper (DP 3/23) on securitisation capital requirements tackling four separate issues, one of them being the use of credit risk mitigation (CRM) in synthetic SRT securitisations. The discussion paper clearly stipulated that the CRR as applied in the UK allows banks to use two forms of eligible CRM, funded and unfunded, stating for the latter:

> "*unfunded credit protection is a type of CRM that reflects the promise from a third party to pay when a borrower or counterparty defaults*."

The discussion paper added – with a hint of irony, knowing the 'cultural' background:

> *"The PRA understands that UK originators of SRT securitisations generally use CRM in the form of funded credit protection. The PRA would like to engage with SRT market participants to better understand current market practice and also market interest in using unfunded CRM in SRT securitisations."*

Market participants responded to the paper and took the opportunity to seek clarity on whether the PRA would generally accept the use unfunded credit protection for achieving SRT.

Interestingly, the discussion paper elaborated for the first time on the historical concerns behind the PRA's 'cultural norm'. The paper drew attention to two micro-prudential concerns, which could give rise to financial stability risks:

> *"The PRA would also like to understand more fully the potential prudential risks associated with the use of unfunded CRM in SRT securitisations. These include, for example but not limited to: (i) a risk of late payment or non-payment of the credit protection amount when a borrower or counterparty defaults; and (ii) a risk that the unfunded CRM provider may be downgraded and then cease to be eligible to provide unfunded credit risk mitigation, necessitating alternative arrangements to continue to achieve SRT".*

From a quantitative perspective, the two micro-prudential risks that have been explicitly expressed can be quantified (see Appendix A4 showing that the fear of such risks is overdone).

5.2 Competitiveness pressure

In October 2024, the Bank of England published a Consultation Paper (CP 13/24) setting out the PRA's proposals to restate some provisions of the CRR (No 575/2013), inherited from EU law. The paper contains, among other things, 16 proposals related to securitisation requirements, of which one relates to the subject-matter of this paper, namely the: "supervisory expectations relating to the use of unfunded credit protection in synthetic SRT securitisations" (Chapter 3, Proposal 3) (BoE (2024)).

The PRA clarified that it "*takes the view that in principle it should be possible for originator institutions to use unfunded credit protection for achieving SRT where relevant requirements and supervisory expectations are met.*" One such expectation is that UK banks wanting to execute an unfunded SRT should discuss the transaction at an early stage with the UK PRA. The rationale set out in the CP is that unfunded credit protection is a 'complex feature'. The PRA is explicit that it does not intend to pre-approve transactions. Nonetheless, it will provide "feedback" on whether it considers commensurate risk transfer to have been achieved at a point in

time. Presumably this mechanism could be used to give originators reasonable assurance that their SRT is likely to be approved once the transaction has been executed. To practitioners, there is something deeply counter-instinctive in declaring the unfunded format as a complex feature as it is far simpler to execute than the funded format, both in terms of legal documentation and in terms of operational risks.[40] But those same practitioners recognise that this is an elegant route for the PRA to justify the use of an otherwise unusual pre-approval mechanism. By shifting from the traditional post-approval to this pre-closing feedback approach, the PRA would give itself a sort of veto-right against the accumulation of vulnerabilities discussed in the previous section.

In fact, unlike other proposals contained in the consultation paper that require a change in the law, such as a formulaic p-factor for the standardised approach, a 'clarification' of a cultural stance would require no modification to the existing legislation. It is thus possible that UK banks will shortly issue SRT in an unfunded format.

What is more interesting is to note the reasons why it would be in the UK's interest to accept capital release on unfunded SRT trades. Those reasons are expressed by the PRA in its 'Have regards' analysis in which it cited four regulatory principles that influenced its decision:

1. *"The principle that a burden or restriction which is imposed on a person should be proportionate to the benefits which are expected to result from the imposition of that burden."* Clearly, adding a new pre-closing feedback step in exchange for simpler, faster and cheaper execution is proportionate.
2. *"Encouraging economic growth in the interests of consumers and businesses and promoting competitiveness."* This is the most important 'cultural' change currently occurring in financial policy in post-Brexit UK: in line with this focus on using finance to drive growth, the UK Treasury added "competitiveness and growth" as a secondary objective of the PRA. This means that, in addition to its main objective of promoting the safety and soundness of PRA-regulated firms, the PRA's mandate now also includes (as a secondary matter) facilitating the international competitiveness of the UK economy and facilitating its growth in the medium to long term. Considering this new legally binding mandate, the PRA stated that embracing unfunded credit protection would have the triple benefits of a) aligning with the EU practice where unfunded SRT is an established practice (at least for non-STS), b) ultimately supporting the safety and soundness of UK banks, and c) driving growth and lending to the real economy. Moreover, the PRA stated that the provision of unfunded insurance-based credit protection for SRT would also allow insurers to grow their business
3. *"The principle that the regulators should exercise their functions as transparently as possible."* Clarifying the need for a new pre-approval step satisfies that principle.
4. *"Efficient and economic use of PRA resources."* This is an internal and budgetary concern facing many NCAs, not just in the UK, but also in the EU countries. It reflects the need to ensure that sufficiently qualified staff be available to supervise the increasing number of SRT transactions.

6 Benefits and Risk mitigants of unfunded CRT

6.1 Views contained in the report of the Joint Committee of the ESAs

The Joint Committee (JC) of the European Supervisory Agencies (ESAs) published on March 31, 2025, a report on the implementation and functioning of the Securitisation Regulation (Article 44) which gives insights into the regulators' approach. This report (JC (2025)) is not technically linked to the EC consultation on securitisation but provides inputs and recommendations on various non-prudential issues considered in the consultation. In particular, the report "*examines the feasibility of allowing insurance and (re)insurance undertakings to act as eligible providers for unfunded credit protection under the STS framework.*"

[40] In its response to the UK Consultation Paper CP 3/24, regarding complexity, Arch Insurance (EU) dac, stated that "*unfunded SRT is significantly less complex compared to funded SRT because the unfunded credit protection is typically a bilateral contract between the (re)insurer and the bank/originator compared to a funded transaction where there are multiple contracts in addition to the funded credit protection contract. It is also more costly to structure and maintain a funded SRT transaction, including SPV costs (set-up and maintenance), and costs of the multitude of service providers required in most funded structures (such as account bank, custodian, paying agent, rating agents). The extra complexity and the cost of establishing a funded SRT may disincentive smaller or regional banks in the UK from originating an SRT transaction. The unfunded synthetic SRT format could unlock issuance potential of SRT transactions for smaller or regional banks and for smaller portfolios at lower cost and less complexity than funded structures.*"

The JC report lists the 'pros' and 'cons' of allowing (re)insurers to provide unfunded credit protections under the STS framework for on balance-sheet securitisations, for consideration by the European Commission (EC). It states (emphasis added):

> *"**This report does not include a recommendation.** Should the EC consider exploring further the possibility of allowing unfunded credit protection to be STS eligible, it should be carefully examined with a thorough impact assessment and should be also subject to appropriate safeguards, given the associated risks including the increase of counterparty default risk, potential systemic risk and possible detriment to policyholder protection."* (JC (2025))

6.1.1 The 'pros' according to the JC report

There are four 'pros' listed.

> Pro #1(emphasis added): "*Reduce the costs for investments of Solvency II regulated entities, namely insurers and reinsurers, in synthetic securitisations that comply with the STS requirements, hence **promoting investments in less complex and more transparent securitisation market**. Under the current STS framework, insurance and reinsurance companies can only participate in STS on-balance-sheet securitisations where they provide cash collateral, which is more costly. These entities can generally offer competitive fees to banks that promote the economics of SRT*[**Footnote 49**][41] *transactions, **thus promoting competitiveness in the EU**. According to the CRR in case of unfunded credit protection the banks have to capitalise against the insurers and reinsurers counterparty risk. In addition, as per Article 249 of the CRR, these entities are subject to minimum rating requirements when providing credit risk mitigation to securitisation positions. **In summary, the investor side of OBS[42] securitisations will be broadened, thereby deepening, and enlarging the market.***" (JC (2025))

The statements in the above paragraph need to be analysed closely. Currently (re)insurers can only participate on an unfunded basis in non-STS OBS securitisations. Since European policymakers' intention is to increase the STS share of the European securitisation market, broadening access to this market segment, aiming to be less complex and more transparent, is an obvious objective. The paragraph Pro #1 has also the advantage of stating the obvious: the main economic beneficiaries of this broadening are European banks, who can get access to better prices, improving their competitiveness. Interestingly, the paragraph Pro #1 reminds the reader that the EBA has already risk mitigants in place, with regards to minimum rating requirements for counterparties in non-STS transactions, and those can be applied to the STS ones too.

> Pro #2 (emphasis added): "***Insurance and reinsurance companies are regulated entities** under Solvency II and **are subject to capital requirements** which target the 99.5 value at risk (VaR) over a one-year time horizon. According to the International Association of Credit Portfolio Managers (IACPM)*[**Footnote 50**][43]*, to date the credit insurance and reinsurance companies active in providing unfunded credit protection are multi-line reinsurers with diversified business. In summary, **allowing unfunded guarantees of insurance companies for STS securitisation could attract well-regulated investors.***" (JC (2025))

Although not highlighted as such, the above paragraph is the most important when considering financial stability. As shown in Section 2, the FHFA intentionally included (re)insurers at the very inception of their housing CRT programs; it wasn't an afterthought. It ensured that insurers provided long term investments in this market from inception of the programs and that over time, their number would increase. The GSEs reaped the financial stability benefits during COVID. In the European case, attracting well-regulated protection providers, such as well-capitalised (re)insurers, is fundamental when considering a longer-term horizon, as they are stable anchors in periods of uncertainties. While paragraph Pro #1 is about competitiveness, this paragraph Pro #2 is about financial stability; it would have clearer had it been stated explicitly.

---

[41] Footnote 49 of the JC report: "*The CRR (Articles 243 and 244) allows the originator institution of a securitisation to exclude the securitised exposures from the calculation of its risk-weighted exposures amounts, while risk weighting any retained position in the securitisation, provided that capital relief is achieved by a significant risk transfer (SRT) associated with the securitised exposures to third parties. The CRR allows both traditional and synthetic transactions to achieve SRT. In fact, achieving SRT is one of the key objectives of most synthetic transactions.*" (JC (2025))

[42] OBS: On-Balance Sheet, a stigma-free regulatory term used in Europe to mean 'synthetic' when referencing assets from a bank's balance sheet.

[43] Footnote 50 of the JC report: "*ACPM-2021-Banking-Package-Have-your-Say.pdf*"

> Pro #3 (emphasis added): "***Offer counterparty diversification for banks*** *to manage credit risk, thereby also managing their counterparty limits for the counterparts currently providing UFCP and to achieve additional capital relief*[Footnote 51][44] *that would* ***enable them to increase their lending capacity***." (JC (2025))

The first part of the paragraph Pro #3 is technical; currently only 0% risk-weighted public or multilateral entities can provide unfunded credit protection (UFCP), of which they are only a handful. Concentration of a market in a handful of counterparties creates issues for banks. Granting access to the unfunded STS market to entities from the private sector would help banks manage their counterparty limits. The most important element though is the last part of the paragraph: capital relief for banks enables them to increase their lending capacity. This is the economic phenomenon of 'capital velocity'.

> Pro #4 (emphasis added): "***Due diligence requirements and risk retention rules*** *as well as* ***the STS framework*** *has further strengthened the legislative framework.*" (JC (2025))

The due diligence requirements and the minimum 5% risk retention rules apply to all securitisations, STS and non-STS. These are two key enhancements implemented from the lessons of the GFC, and both contribute to (re)insurers being comfortable participating in the SRT market. The Basel Simple, Transparent and Comparable (STC) framework codified a much lighter version of the European good practices largely existing pre-GFC in Europe, and it was adopted, and dare-we-say gold plated, in SECR as the STS criteria. The STS collateralisation criterion (see Appendix A3) was added in 2021; it has nothing to do with the original idea of STC or STS; it is not linked to any lessons of the GFC.[45]

6.1.2 The 'cons' according to the JC report

After listing the four 'pros', the JC report lists three 'cons'.

> Con #1: "*Financial stability concerns about the provision of unfunded credit protection to synthetic securitisation by entities without 0% risk weight (lessons learnt from the past e.g., failure of monoline insurers – see* ***Box 1 - Lessons learned from the Great Financial Crisis (GFC) for insurance companies)****. Insurers would have a competitive advantage over other investors that still need to provide funding for credit protection for STS securitisations which would result in most of the credit risk of synthetic transactions ending up in the insurance sector. Moreover, the economic viability of risk transfers from banks to insurers results from regulatory differences - the capital requirements for insurers providing credit protection to synthetic securitisation are on aggregate lower than on the banking side, for example because Solvency II allows for diversification effects and CRR does not. The regulatory difference will lead to misallocations and will increase the systemic risk.*" (JC (2025))

This paragraph Con #1 refers to a full page box inserted in the report (Box 1) about the fate of monolines during the GFC. Both this paragraph and Box 1 though are highly misleading. Let's address the three unusual lines of argumentation: 1) the entire private insurance sector being equated to monolines, 2) market distortion created by (re)insurers over other investors and 3) risk quantification in absolute terms (capital requirements), without considering the fundamental business model difference existing between banks and (re)insurers. Moreover, it is worth noting that none of the above arguments are specifically applicable to STS as distinguished from non-STS.

1) Monolines. To support its position that there are financial stability concerns with non-0% risk weighted entities, the first sentence of the paragraph Con #1 cites the collapse of monolines during the financial crisis. As stated in the paragraph Pro #2, "*the credit insurance and reinsurance companies active in providing unfunded credit protection are multi-line reinsurers with diversified business."* **This point about monolines is thus moot**. However, since it has been raised, we refer the reader to the excellent report entitled "The Financial Crisis Inquiry Report"[46] from the US Congress in 2011; the report mentions that the demise of monolines was not caused by their investment in securitisation per se, but because they specifically assumed risk, via securitisations, on ***US subprime assets***. This risk was further concentrated through the use of ***resecuritisations instruments***.[47] In this respect, the report

[44] Footnote 51 of the JC report: "*Unless the UFCP by insurance companies will substitute the FCP provided by insurance companies.*"

[45] In fact, this collateralisation criterion can weaken financial stability under certain conditions (see Appendix A6).

[46] https://www.govinfo.gov/content/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf

[47] Furthermore, the monolines were taking outsized exposures compared to their capital base, leading to extremely high leverage ratios. Also to be noted, "re-securitisations" are now banned in the EU.

clearly explains that the core risk resides in the credit quality of the underlying assets and not in the instrument that vehiculates that core risk. Thus the primary financial stability concern is the predictability of credit losses on the originated loans, not the securitisation instruments that refers to them. European banks securitise only their core assets, with very long experience of credit risk assessment and under strict supervisory control through the Significant Risk Transfer process. The STS criteria provides further comfort to risk takers by creating a homogeneous subset of eligible assets, well diversified and performing, which is not the case for non-STS-eligible assets. Yet, this is the segment of the market that is currently not accessible to multiline (re)insurers.

- The current legislation does not define a monoline vs a multiline insurer. However, Appendix I of the Insurance Directive 2009/138/EC defines the "Classes of non-life insurance". A credit monoline would be an entity that does all or the substantial majority of its business in, Class 14, defined as "*Credit: insolvency (general), export credit, instalment credit, mortgages, agricultural credit*". An insurer whose Class 14 represents a minority of its Gross Written Premium (GWP) is not a credit monoline but a multiline.

2) Market distortion: **It is counterfactual to say that (re)insurers have a competitive advantage** over other funded investors, "*which would result in most of the credit risk of synthetic transactions ending up in the insurance sector*". If that were true, then (re)insurers would have by now captured all the non-STS market, which is not remotely the case. There are four main reasons for this:
    - Banks and (re)insurers cap credit and counterparty risk by internal concentration limits, controlled by their supervisors. Banks also have credit and contingent credit limits per insurer operational entity and at group level, as well as sector concentration limits.
    - (Re)insurers do not, and will not, 'buy the market', as they are making appropriate risk/return decisions within strict regimes and their capital model[48]; there is some natural distinction in the market for high risk SRT tranches business (generally funded), and lower risk unfunded tranches, as this business is not fulfilling return hurdles of funded investors that need to deploy cash;
    - Depending on market dynamics, the cost of funded protection, at any point in time, may be cheaper than (re)insurance protection. This has certainly been true in the GSE CRT programs at various points; and
    - European banks develop long term relationships with their risk sharing partners, and are well aware that they need to maintain a diverse base of long-term counterparts in 0% risk weighted public entities, private capital markets and insurance markets. Among funded investors, there are also regulated ones such as pension funds, who, like (re)insurers, have a through-the-cycle pricing approach, less sensitive to market procyclicality or volatility, as they seek stable returns over time for the benefits of their pensioners.

3) Regulatory arbitrage: The last sentence "*the economic viability of risk transfers from banks to insurers results from regulatory differences*" is baffling. **The calibration of regulatory parameters and the diversification advantage included in Solvency II (and not in Basel regulation) flow from and reflect the differences in business models and risk profiles between (re)insurers and banks.** Regulatory differences are the consequence of these objective differences and not an artifact of the regulatory architecture. As such they are not a matter of "regulatory arbitrage" but a function of the traditional economic theory notion of "comparative advantage" that drive all commercial exchanges. At a broader conceptual level, regulatory arbitrage cannot be considered a valid argument between regulated and supervised counterparts unless one advances the argument that one or the other (or both) regulatory regimes are miscalibrated.

The most effective safeguard against financial crisis is not collateral, which spreads the crisis further. Just as critical is effective risk management within banks together with and most critically effective supervision at transaction, entity and macro-prudential level, across all financial industries.

As an additional benefit, (re)insurers' involvement, through their underwriting of synthetic securitisation, provides banks and supervisors with an independent view of risk and valuable feedback on a bank's assets.

[48] (Re)insurers are not only regulated but externally rated with capital models with strict diversification criteria to achieve a high investment grade rating.

Con #2 (emphasis added): "***Policy holder protection concerns.*** *Any losses that insurers incur from unfunded guarantees may impair the ability of the insurer to fulfil other insurance contracts and pay insurance benefits to policyholders.*"

While the above statement is technically correct, it is true for all business activities of insurers and thus unrelated to the STS label of synthetic securitisations. The 'raison-d-être' of an insurer is to underwrite a diverse portfolio of risk, to add value to the economy and society for making risks insurable, and to charge premium that are commensurate with the risk. The securitisation regulation has been designed, prior to the arrival of the COVID Quick Fix, to ensure that insurers could participate in the EU SRT market. The 2021 changes in SECR effectively curtailed the insurers' access to an existing market, that was from that moment able to benefit from STS status.

As mentioned in Section 1, insurers have been providing banks with uncollateralised credit protection for non-payment of individual loans for more than 20 years. By end 2023, they were sharing non-payment risk on about $360 bn of credit facilities, without indication of increasing financial stability risks, nor concerns about policy holder protections.

Box: CRR – Managing counterparty risk for unfunded credit protection providers for securitisation positions

Chapter 4, Article 201: "*Eligibility of protection providers under all approaches*" (emphasis added).
"*1. Institutions may use the following parties as* ***eligible providers of unfunded credit protection****:*
[…] (g) other corporate entities, including parent undertakings, subsidiaries and affiliated corporate entities of the institution, where either of the following conditions is met:
(i) those other ***corporate entities have a credit assessment by an ECAI;*** *[…]"*

Chapter 4, Article 202: "*Eligibility of protection providers under the IRB Approach which qualify for the treatment set out in Article 153(3)*" (emphasis added).
"*An institution may use institutions, investment firms,* ***insurance and reinsurance undertakings*** *and export credit agencies as eligible providers of unfunded credit protection which qualify for the treatment set out in Article 153(3) where* ***they meet all the following conditions****:*

(a) ***they have sufficient expertise*** *in providing unfunded credit protection;*

(b) they are regulated in a manner equivalent to the rules laid down in this Regulation, or had, at the time the credit protection was provided, a credit assessment by a recognised ECAI which had been determined by EBA to be associated with credit quality step 3 or above in accordance with the rules for the risk weighting of exposures to corporates set out in Chapter 2; [overridden by Art 249.]

(c) they had, ***at the time the credit protection was provided****, or for any period of time thereafter,* ***an internal rating with a PD equivalent to or lower than that associated with credit quality step 2 or above*** *in accordance with the rules for the risk weighting of exposures to corporates set out in Chapter 2;*

(d) ***they have an internal rating with a PD equivalent to or lower than that associated with credit quality step 3 or above*** *in accordance with the rules for the risk weighting of exposures to corporates set out in Chapter 2.*"

Chapter 5, Article 249: "*Recognition of credit risk mitigation for securitisation positions*". (Emphasis added).
"1. An institution may recognise funded or unfunded credit protection with respect to a ***securitisation position*** *where the requirements for credit risk mitigation laid down in this Chapter and in Chapter 4 are met.*
2… […] Eligible unfunded credit protection and ***unfunded credit protection providers*** *shall be limited to those which are eligible in accordance with Chapter 4 and recognition of credit risk mitigation shall be subject to compliance with the relevant requirements as laid down under Chapter 4.*
3. By way of derogation from paragraph 2 of this Article, the eligible providers of unfunded credit protection listed in point (g) of Article 201(1) [i.e., (re)insurers], ***shall have been assigned a credit assessment by a recognised ECAI which was credit quality step 2 or above at the time the credit protection was first recognised and is currently credit quality step 3 or above****.*

Con #3 (emphasis added): "*Allowing unfunded credit protection for STS securitisations* ***increases the risk of originators to incur losses.*** *When developing the current STS framework, the debate was on the prospect of originators not bearing losses and the associated reputational risk, thus limiting the STS framework to 0% RW entities and funded credit protection.*"

This point Con #3 is essentially raising counterparty risk concerns. This criticism contradicts the point made in Pro #1where the JC acknowledged that the regulation already requires banks to capitalise the (re)insurer's counterparty risk and that minimum rating requirements apply to protection providers when providing credit risk mitigation to securitisation positions. Banking regulators have a longstanding tradition of ensuring that the regulatory framework for counterparty risk effectively mitigates the risk of losses flowing from non-payment of contractual obligations (see Box on CRR). The CRR assigns a risk weight to any exposure that has uncollateralised commitments.

It should also be noted that no private sector entity benefits from the 0% risk-weight. While public entities play, an important role, they cannot serve the whole STS market, due to their own eligibility criteria, and due to the counterparty limits that banks will have, even against 0% risk-weighted counterparty exposures. And, needless to say, 0% risk-weight public entities are themselves subject to capital adequacy frameworks, which limits their capacity to grow their volumes, given the limited fiscal space of most of their sovereign shareholders. Yet, there is no evidence that restricting the entire uncollateralised SRT STS market to the public and multilateral sectors was debated during the passage of the COVID Quick Fix. It is very likely that a conservative gold plating approach was applied only because of the haste with which this regulation was passed, and that the full debate is only now just taking place through the EC consultation on securitisation (EC (2024)).

During the EC consultation, questions were asked as to whether a required minimum rating could be introduced as a risk mitigant for unfunded synthetics. This was mentioned explicitly as a possibility by the Spanish authorities in their response (Row 73 in EC (2025)). This approach though begs the question as to why the CRR framework is considered as sufficient for single names credit insurance and non-STS and yet insufficient for STS. What would be the logical argument for STS transactions to require more stringent rating requirement than for non-STS transactions when addressing the same risk? Surely, the SRT bank would want the same level of protection whether STS and non-STS. And that level of protection is already included in the CRR framework, via the ratings dependent counterparty risk rules.

6.2 Addressing regulatory concerns on 'unfunded CRT'

Across jurisdictions, there is little unanimity in the views of regulators on 'unfunded SRT', except for concerns related to wrong-way risk and the monoline business model. For example, the US FHFA has a very positive, pro-financial stability, pro-growth, pro-housing position. The UK regulator is reconsidering its position, in part with a view to enhancing the UK's competitive position vis a vis the EU by allowing 'unfunded SRT' with high quality (re)insurers. And maybe even overtaking the EU, which has fragmented its own market by disallowing STS status for 'unfunded SRT'. Regarding the private sector banks in the US, the position is fluid, and it remains to be seen if the new administration will change the current position and accept eligibility for both US and non-US (re)insurers.

One of the concerns often expressed by regulators is the 'downgrade' risk, i.e., the fact that once a (re)insurer is no longer investment grade the credit protection either needs to be collateralised or replaced. While a quantification of the risk is provided in Appendix A4, there is another qualitative element that is not sufficiently appreciated: replacement or re-insurance. Most unfunded SRT transactions are 'syndicated' with several (re)insurers – according to an IACPM survey, up to four on average (IACPM (2025)). In other words, banks can consider replacing an insurer in case of a credit downgrade.[49] And this possibility of 'replacement' is why the EU should strive to expand the pool of (re)insurers.

Further, the fear of multiline (re)insurers defaulting is overblown (see Appendix A4). It is not supported by the steady protection (re)insurers have historically provided across economic cycles and catastrophic events. As stated by the EBA in its October 2024 report on credit insurance: "***It is worth noting that no default on credit insurer has been observed in the EU.***"[50] Furthermore, in the unlikely event of an insurer becoming insolvent, these credit protections – under the rules set out in Solvency II – rank senior to bondholders and other non-insurance credit obligations of the insurer. Thus, their recovery rates should be high, if not 100%. This is linked to the strong regulatory regime to which (re)insurers are subject and which is designed to ensure full payment of insurance claims.

It is thus odd that, in the context of the October 2024 EU targeted consultation, an anonymous response from a

[49] Management of downgrade risk is a complex issue. Risk mitigants such as collateral obligations, themselves subject to downgrade triggers, can have potential unintended side-effects, as explained in Appendix A6.

[50] EBA/Rep/2024/21, October

supervisor mentions the idea of a 'back-up insurer' for STS transactions (emphasis added):

> *"We are open to explore the possibility to extend eligible unfunded credit protection providers to insurers. However sufficient safeguards should be put in place to mitigate any financial stability concerns. some safeguards could be related to: i)* ***a high minimum credit rating should be required****; ii) it should be ensured that the counterparty is subject to extensive supervision and the additional counterparty risk should be properly taken into account; iii) in case of insolvency of the credit protection provider or in case the minimum credit rating requirement would no longer be met during the life of the transaction* ***there should be a back-up insurer that could take over the protection requirements****; iv) taking note of the lessons learned from the GFC, we believe it could be beneficial to put concentration limits of the amount of transactions that insurers could invest in."* (Row 96 in EU (2025))

The notion of a 'back-up' entity is common in securitisation for servicers, when operational risks, lack of regulation, and limited financial strengths are a concern. To require a 'back-up' (re)insurer for unfunded SRT transactions does not add value when the (re)insurer has lower operational risk, is highly regulated and has a minimum credit rating. It would add unnecessary costs and potentially make credit insurance cost prohibitive since no insurer would commit their limited capacity without achieving an adequate return. Doing so would monopolise financial resources (that would be unused) at a time when the European Commission is trying to scale financial resources to launch a pan-European Savings and Investment Union for euro- and non-euro economies. However, the idea of whether a bank could find a 'replacement' counterparty upon the downgrade of a (re)insurer is something that any risk management department of an issuing bank should raise when selecting a (re)insurer or conducting stress testing. Regulators would help the market by fostering an increase in the number of (re)insurers present in the market, like FHFA did over the last decade.

Another possible risk mitigant was mentioned in the joint response from the French authorities (Ministère de l'économie, des finances et de l'industrie, Autorité des marchés financiers (AMF), Autorité de contrôle prudentiel et de résolution (ACPR), Banque de France (BdF)), differentiating according to the capital treatment:

> "*Finally, as regards the prudential treatment of the credit protection for the insurer, the standard formula used in the Solvency II framework may not be suitable to reflect the risks associated to potential risk arising from this specific activity. In accordance with the logic of the Solvency II framework, which allows, in certain cases, the use of an internal model, notably in order to adapt the prudential treatment to the specific risks taken by the undertaking, such an internal model might likely be more appropriate. At the very least, an adequate assessment of deviations between the risks arising from synthetic securitisation and the standard formula, associated with an additional capital requirement to cope with it, would be necessary*." (Row 27 in EC (2025))

We note that a Solvency II regulated (re)insurer who uses the standard formula to assess their capital requirements and solvency needs is required in its Own Risk and Solvency Assessment to demonstrate that the standard formula is appropriate to the risks inherent in its business and reflects its risk profile.

Box: Unfunded CRT with (re)insurers reduces leverage in the financial system

Policy makers have raised concerns about the use of bank leverage by SRT funds (see IMF (2020)), either at transaction level (through repo's) or at fund level (through NAV finance by banks or non-banks).

Investors in European SRTs have less need for leverage because tranches are thinner than in the US (due to differences in RWA requirement), and banks are allowed to split tranches into junior and mezzanine portions, so the riskiest tranches typically price at higher yields.

In the US, due to a lack of clarity, some banks interpret the rules as meaning the use of tranching is not allowed when a SPV is not set-up, and investors, therefore, sometimes need to add debt to generate returns that fit with their needs.

Allowing insurers to take part in SRT transactions that release capital for bank originators could be one of the measures to mitigate the need for leverage in the US.

6.3 The multiple diversifying impacts of (re)insurers

The systemic risk posed by the balance sheets of multiline non-life (re)insurer is lower than for the banking sector. There are multiple reasons why this is so.

1. The non-life (re)insurance industry is large, solid and prudentially regulated, i.e., stable. The market worldwide is projected to reach a market size of Gross Written Premium (GWP) of US $4.6 trn in 2025, with an annual growth rate of 3.0% (CAGR 2025-2029), resulting in a market volume of US $ 5.18 trn by 2029.

2. Contrary to the banking industry, insurers' exposure to credit risk remains marginal. Insurance of credit risks represents 2.2% of the risks insured by EU insurers in terms of GWP (see EIOPA (2023)).[51] This covers both the traditional 'single risk' insurance and 'portfolio risk' insurance, in which the unfunded CRT activity is found.

3. Most risks protected by (re)insurers are not correlated with financial risks, including credit risk. For example, unfunded credit protection falls under class of business 14 or 15 for EU insurers which is surety or credit insurance. This is a so-called special line for insurers compared to the big volume bread-and-butter business, like property, natural catastrophe, casualty, life and health.

4. (Re)insurers have longer-term liabilities and are less reliant on short-term funding and are not sensitive to deposits outflows.

5. (Re)insurers provide further diversification among banks' long-term partners. They have a long track record of remaining committed to established business lines and provide crucial risk absorption during economic crisis when capital markets may seize up (see Appendix A1 on COVID).

6. Unfunded credit protection does not require collateral. It is therefore less impacted by the volatility of the financial markets, making insurers a reliable partner for banks through the credit cycle.

7. Unfunded SRT transactions are mainly done by multiline non-life insurers that are sophisticated risk managers with a constant aim at optimising balance sheet diversification. According to a 2024 IACPM survey, on average only 25% of the risk or €34 m per transaction is retained by each insurer after syndication (IACPM (2025)). Furthermore, insurers transfer tail risks to reinsurers, who are also very diversified.

8. As part of their risk management, non-life insurers want geographic diversification, and thus, in the case of the EU, like to provide credit protection to loans originated by local banks in smaller countries. They are particularly important for non-euro countries as an alternative to funded transactions, as the latter's collateral management operations in local currencies tend to be more expensive compared euro-denominated ones.

9. In the EU, (re)insurers are rated CQS 1 (i.e., AAA, AA) or CQS 2 (i.e., A), well capitalised and highly regulated in all jurisdictions. The involvement of insurers in the synthetic securitisation market increases the overall supply of potential protection providers, increasing market capacity for risk absorption and supporting economic growth.

10. Unfunded protections, by their very nature, do not require funding, and therefore do not increase the volume of financing required from the financial system, including banks as the primary source, in the EU, of funding.

From the banks' perspective, the use of insurance is risk-effective in the sense of diversifying available protection types as non-life (re)insurers are sensitive to other – more geospatial[52] – risks than banks and investment funds. The balance-sheet of banks when protected by both financial institutions ***and*** non-life insurers is therefore more resilient to financial crises.

[51] For Munich RE this special line, Credit and suretyship insurance, makes up ca. 2% of premiums written (see S.05.01.02 of Munich RE "Solvency and Financial Condition Report" as published on the company webpage).

[52] Examples of geospatial risks are earthquakes, hurricanes, floods, wildfires, subsidence, etc.

7 Conclusion – a Win, Win, Win Proposition

This paper has shown how highly regulated, well-capitalised and well-diversified (re)insurers strengthen banks' financial stability by providing 'Unfunded Credit Risk Transfer' capabilities. Multiline non-life (re)insurance companies are sophisticated risk managers with the constant aim of optimising balance sheet diversification. Hence, the transfer of credit risk from the banking sector to the (re)insurance sector has a clear positive effect on both financial stability and competitiveness because 1) systemic risk reduces in the banking sector while 2) diversification increases financial stability among (re)insurers and 3) the banks' capacity increases to invest in the real economy.

Nevertheless, 'financial stability' means many things to many people.[53] This paper aims at moving away from headline views towards reviewing the core issues. The analysis per jurisdiction shows that the wide spectrum of regulatory views has consequences for both banks and (re)insurers as well as their business model. Unfunded risk transfers have been encouraged in the US by FHFA for the GSEs, as core to providing stability in the housing finance system without involving taxpayers'money. Concerning US commercial banks, the situation is fluid, and whether banking regulators will maintain in the new political environment the current unfavourable status remains to be seen. The UK made it clear that it will consider how to best incorporate unfunded insurance protections in regulations. The EU had a thriving market until it got fragmented, seemingly inadvertently, in 2021, leaving only the non-STS sector 'Open' for insurers' underwriting business.

Three jurisdictions are currently reviewing their historical positions: the US, UK and EU. The UK PRA is the only regulator that has the advantage that it can move fast, with a 'clarification' rather than a change in the law; it is also the only regulator that has publicly set out its reasoning as to why 'unfunded SRT' should be allowed and how risk mitigants could be implemented. The US OCC, FRS and FDIC, show some timid signs of evolution – it is too early to say when those regulators will allow the private sector to replicate the benefits reaped by the public sector through the work of FHFA. The EU is aware that the activity of 'unfunded SRT' is developing only on non-STS transactions, and not with respect to the large and growing STS market. The European Commission has thus raised questions as to this issue in a public consultation in late October 2024. Responses to that consultation have shown overwhelming support among banks, (re)insurers, trade associations and market associations, including among some in the regulatory and supervisory community, to correct the existing situation.

It was never the intention of the European Parliament or the Council of the European Union, the EU co-legislators, to hold back (re)insurers from protecting EU assets. Meanwhile, global (re)insurers do not wait and allocate capital and talents to other opportunities, based on their business strategy, asset and liabilities management and other parameters. This allocated capital is then deployed where opportunities exist to grow their underwriting business. They move their capital and talents to those jurisdictions that are 'Open for business'. That means away from the EU when regulations are unfavourable.

The EU situation is unique with its fragmented synthetic securitisation market. By prohibiting (re)insurers from providing unfunded protection in STS format for on-balance-sheet securitisations, the EU reduced opportunities for (re)insurers in the synthetic securitisation area, with three important consequences:

a) Investment teams at (re)insurers specialising in securitisation products do not grow to their full potential, especially in Europe.
b) European (re)insurers are not fully able to build the diversified portfolios that they would like to create, across European countries, across both SA and IRB banks and across the asset classes in which they have expertise.
c) The European economy's competitiveness does not benefit from the credit underwriting capacity of European global champions in the re-insurance sector. Global re-insurers invest globally, and allocated capital that could have been deployed in Europe on synthetic STS is currently deployed in other regions of the world.

[53] An anonymous provider of data, analytics, and online marketplace stated the following in its response to the EU consultation (emphasis added): "*We believe market transparency and market discipline should also apply to the originators using SRT and unfunded credit protection. No hard limits or rating requirements would be necessary if banks disclosed their volumes and ratings of their counterparties in unfunded risk protection.* ***Financial stability risk not only arises from counterparty concentration risk but also from roll-over risk and "cliff risk" or "RWA reattachment risk" if losses accumulate to a degree that the risk weights and their corresponding capital charges increase again for the protection buyer.*** *We believe that public disclosure, for instance in Pillar 3 reports, of SRT deals including their counterparty rating, attachment and detachment points plus cumulative losses is the most suitable way to ensure market discipline.*" (Row 124 in EC (2025))

The growth of the (re)insurer-provided 'unfunded SRT' market stalled in Europe during 2022-2023. Growth resumed in 2024 but only though non-STS transactions issued by international and regional EU banks. The overall outstanding volume of insurance protections on non-STS transactions can be estimated at close to €6 bn by end 2024, i.e. only 10% of the outstanding insured protections on US GSE CRT programs as at the end of 2023.

Opening STS eligibility to insurers' unfunded credit protection will likely increase and diversify demand in the market, reduce the cost of credit protection for banks, strengthen their protections by combining counterparties sensitive to different systemic risks, foster competition and lead to larger securitisation volumes. Also, some geographies and asset classes (e.g., residential mortgages, specialised lending, transaction banking) are historically well known by (re)insurers.

In the EU, the discussion on 'unfunded SRT' is part of a broader debate on the role of securitisation, both synthetic and traditional. While the exclusion of (re)insurers from the EU synthetic STS market appears to be easily correctable via a legislative amendment, other issues need to be addressed. For example, if housing were to be a real priority of the European Commission, it should follow in the footsteps of the US Housing regulator, the FHFA, not only on the issue of the participation of (re)insurers in unfunded CRT transactions, but also in lowering the risk weight of the senior tranches for banks. The dearth of transactions backed by prime residential mortgages is principally linked to the one-size-fits-all risk weight. In comparison, the FHFA risk weight that the GSEs must apply for the senior tranche of the CRT transactions is 5%, something that is a proportion of 10% of the traditional 50% risk weight for the underlying mortgages. A similar concept should be applied in the EU.[54]

[54] In the Basel rules context, for a discussion on how to make the risk weight proportional to the underlying pool, see Duponcheele et al. (2024a).

8 References

A&O Shearman (2024) “CRT transactions in the EU, U.K. and the U.S.”, A&O Shearman Insights, December. (Here)

BoE (2020) “Securitisation: Significant Risk Transfer”, Supervisory Statement SS9/13, Bank of England, July. (Here)

BoE (2023) “DP3/23 – Securitisation: capital requirements”, Discussion Paper 3/23, Bank of England, October. (Here)

BoE (2024) “CP13/24 – Remainder of CRR: Restatement of assimilated law”, Consultation Paper 13/24, Bank of England, October. (Here)

Barr, Michael S. (2024) “The Next Steps on Capital”, Speech of the FRS Vice Chair for Supervision, Brookings Institution, September. (Here)

Bisanz, Matthew (2024) “Interview with Mickey Shemi from Guy Carpenter”, Credibly Challenged, Podcast series, Mayer Brown, August. (Here)

CEU (2024) “Financial Service Committee’s contribution to the follow-up work to the Eurogroup statement on the future of the CMU”, Note 15378/1/24 REV 1, General Secretariat of the Council, November. (Here)

Duarte, Esteban, Donal Griffin and Carmen Arroyo (2024) “JPMorgan Risk Swap Ends Up at a Familiar Place: Rival Banks”, Bloomberg News, 11 June.

Duponcheele, Georges (2024) “Threats related to securitisation and policy proposals”, Presentation to the European Economic and Social Committee, Securitisation in the EU – The way forward, EESC Public Hearing, July. (Here)

Duponcheele, Georges, Marc Fayémi, Jérémy Hermant, William Perraudin and Frédéric Zana (2024a) “Rethinking the Securitisation Risk Weight Floor”, Report, May. (Here)

Duponcheele, Georges, Marc Fayémi, Fernando González Miranda, William Perraudin and Alessandro Tappi (2024b) “European Competitiveness and Securitisation Regulations”, Report, August. (Here)

Duponcheele, Georges, Marc Fayémi, Fernando González Miranda, William Perraudin and Alessandro Tappi (2024c) “Securitisation Reform to Boost European Competitiveness”, Policy Brief no 976, SUERF, September. (Here)

Duponcheele, Georges and William Perraudin (2025) “How to Calibrate Securitisation Capital Rules”, Report, March. (Here)

EBA (2014) “Guidelines on Significant Credit Risk Transfer relating to Articles 243 and Article 244 of Regulation 575/2013,” European Banking Authority, July. (Here: EBA/GL/2014/05)

EBA (2017) “Discussion Paper on the Significant Risk Transfer in Securitisation,” European Banking Authority, September. (Here: EBA-DP-2017-03)

EBA (2020) “Report on STS framework for synthetic securitisation under Article 45 of Regulation (EU) 2017/2402,” European Banking Authority, May. (Here: EBA/OP/2020/07)

EC (2024) “Targeted consultation on the functioning of the EU securitisation framework”, European Commission, October. (Here)

EC (2025) “Received contributions: Targeted consultation on the functioning of the EU securitisation framework”, European Commission, January. (Here)

ECB (2014) “Capital markets union – the ‘Why’ and the ‘How’”, Dinner speech by Yves Mersch, Member of the Executive Board of the ECB, Joint EIB-IMF High Level Workshop, October. (Here)

EIOPA (2023) “European Insurance Overview report 2023”, European Insurance and Occupational Pensions Authority, October. (Here)

EP (2024) “Hearing of Maria Luis Albuquerque”, Committee on Economic and Monetary Affairs, European Parliament, November. (Here)

FHFA (2015), “Overview of Fannie Mae and Freddie Mac Credit Risk Transfer Transactions,” Federal Housing Finance Agency, August. (Here)

FHFA (2016), “Single-Family Credit Risk Transfer Request for Input,” Federal Housing Finance Agency, June. (Here)

FHFA (2020a), “Enterprise Regulatory Capital Framework,” Final Rule, Federal Housing Finance Agency, 12 CFR Parts 1206, 1225, and 1240, December (Here)

FHFA (2022a), “Enterprise Regulatory Capital Framework—Prescribed Leverage Buffer Amount and Credit Risk Transfer,” Federal Register / Vol. 87, No. 51 / Rules and Regulations / Final Rule, March. (Here)

FHFA (2022b), “Fact sheet: Proposed Rule to Amend Enterprise Regulatory Capital Framework,” Federal Housing Finance Agency, May. (Here)

FHFA (2024a), “Fiscal Year 2024 Performance and Accountability Report”, Federal Housing Finance Agency, November. (Here)

FHFA (2024b), “Credit Risk Transfer Progress Report. Fourth Quarter 2023”, Federal Housing Finance Agency, April. (Here)

FHFA (2024c), “Credit Risk Transfer Progress Report 4Q2023”, Federal Housing Finance Agency, April (Here)

FHFA (2025a), “Policy Page – Credit Risk Transfer”, Federal Housing Finance Agency website. Accessed in January. (Here)

FHFA (2025b), “Conservatorship Page – Senior Preferred Stock Purchase Agreements”, Federal Housing Finance Agency website. Accessed in January. (Here)

FHFA (2025c), “2025 Scorecard for Fannie Mae, Freddie Mac, and Common Securitisation Solutions, Federal Housing Finance Agency, December. (Here)

González Miranda, Fernando, and Cristina Morar Triandafil (2023) “The European significant risk transfer securitisation market”, Occasional Paper Series No 23, European Systemic Risk Board, October. (Here)

HLFCMU (2020) “A new vision for Europe’s capital markets,” Final Report of the High Level Forum on the Capital Markets Union, June. (Here)

IACPM (2024) “The role of insurers in securitisation”, International Association of Credit Portfolio Managers, June. (Here)

IACPM (2025) “Global Insurance SRT survey”, International Association of Credit Portfolio Managers, March. (Here)

IMF (2020) “Global Financial Stability Report,” International Monetary Fund, October. (Here)

JC (2025) “Joint Committee Report on the implementation and functioning of the Securitisation Regulation (Article 44)”, Final Report, EBA, EIOPA, ESMA, March. (Here: JC 2025 14)

Killian, Chris and Guowei Zhang (2024) “No, Risk Reduction by Banks Will Not Cause the Next Crisis”, SIFMA News, Securities Industry and Financial Markets Association, November. (Here)

Ormezzano, Véronique (2024) “Basel III implementation: preserving EU banks’ capacity to finance the economy”, Note, *Eurofi Regulatory Update*, pp.85-94, September. (Here)

Paris Europlace (2024a) “How can securitisation contribute to the financing of the EU agenda?”, Securitisation Working Group, Paris Europlace, September. (Here)

RAA (2024a) “RE: Regulatory Capital Rule: Large Banking Organizations and Banking Organizations With Significant Trading Activity, Docket ID OCC-2023-008 (Office of the Comptroller of the Currency) / Docket No. R-1813, RIN 7100-AG64 (Federal Reserve System) / RIN 3064-AF29 (Federal Deposit Insurance Corporation)”, Letter, Reinsurance Association of America, January. (Here)

RAA (2024b) “Basel III Endgame US Implementation, (Re)insurance Credit Risk Transfer”, Reinsurance Association of America, April.

S&P (2024) “Default, Transition, and Recovery: 2023 Annual Global Financial Services Default And Rating Transition Study”, S&P Global, June. (Here)

SIFMA (2015) “The TBA Market Factsheet”, Securities Industry and Financial Markets Association. (Here)

White, Lawrence J. (2017), “In Defense of Regulatory Diversity”, Guest Post, Money and Banking, October. (Here)

9 Glossary

ACIS	Agency Credit Insurance Structure (Freddie Mac unfunded CRT program)
BCBS	Basel Committee on Banking Supervision
BoE	Bank of England
CAS	Connecticut Avenue Securities (Fannie Mae funded CRT program)
CEU	Council of the European Union
CIRT	Credit Insurance Risk Transfer (Fannie Mae unfunded CRT program)
CRT	Credit Risk Transfer
CMRP	Capital Markets Recovery Package
CMU	Capital Markets Union
CRR	Capital Requirements Regulation
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
EIOPA	European Insurance and Occupational Pensions Authority
EP	European Parliament
ERCF	Enterprise Regulatory Capital Framework (in the FHFA Final Rule)
ESAs	European Supervisory Agencies
ESMA	European Securities and Markets Authority
FCP	Funded Credit Protection
FDIC	Federal Deposit Insurance Corporation
FHFA	Federal Housing Finance Agency
FRS	Federal Reserve System
GFC	Global Financial Crisis (in the EU) / Great Financial Crisis (in the US)
GSE	Government-Sponsored Enterprises
GWP	Gross Written Premium
HLF	High Level Forum
IOSCO	International Organization of Securities Commissions
IRB	Internal Ratings-Based approach
JC	Joint Committee
LTV	Loan To Value
MBS	Mortgage Backed Securities
MI	Mortgage Insurance
NPR	Notice of Proposed Rulemaking
OBS	On-Balance Sheet
OCC	Office of the Comptroller of the Currency
PD	Probability of Default
RAA	Reinsurance Association of America
RIF	Risk in Force
RW	Risk Weight
SA	Standardised Approach
SECR	Securitisation Regulation
SME	Small and Medium Enterprise
SPV	Special Purpose Vehicle
SRT	Significant Risk Transfer
STACR	Structured Agency Credit Risk (Freddie Mac funded CRT program)
STC	Simple, Transparent and Comparable
STS	Simple, Transparent and Standardised
UFCP	Unfunded Credit Protection
UPB	Unpaid Principal Balance

10 Appendices

Appendix A1: Unfunded Credit Risk Transfer: Enhancing Stability and Efficiency for U.S. GSEs

Abstract: This study examines the efficacy of unfunded credit risk transfer (CRT) mechanisms employed by U.S. Government-Sponsored Enterprises (GSEs), Fannie Mae and Freddie Mac. By comparing unfunded (reinsurance-based) programs with funded alternatives, we demonstrate the superior price stability and reliable capacity of unfunded CRT, particularly during periods of market stress. Our findings suggest that unfunded programs offer a more cost-effective and sustainable approach to risk management for GSEs, with implications for other financial institutions seeking robust CRT solutions.

1. Introduction

The U.S. mortgage market relies heavily on Fannie Mae and Freddie Mac to ensure liquidity and provide guarantees. These GSEs buy mortgage loans from mortgage lenders and then utilize both funded (e.g., CAS[55] and STACR[56]) and unfunded (e.g., CIRT and ACIS) programs to transfer credit risk to private investors. While both methods serve to diversify risk, this paper argues that unfunded programs, which leverage (re)insurance capital, offer distinct advantages in terms of price stability and consistent capacity, especially during times of market volatility. This analysis demonstrates the superior cost-efficiency and sustainability of (re)insurance-based CRT for GSEs.[57]

2. Market Share Dynamics: Resilience in Times of Stress

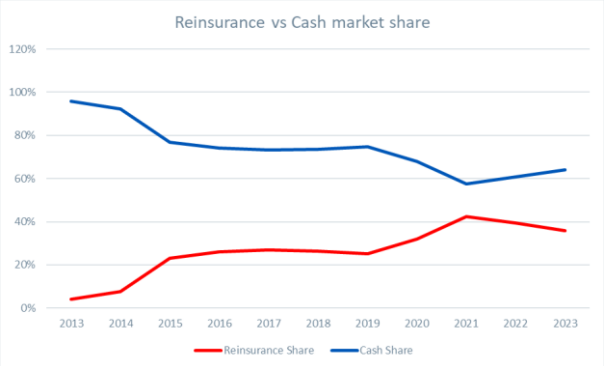
Analysis of CRT market composition reveals a stark contrast between funded and unfunded programs, particularly during periods of market turbulence (see Chart A1). From 2013 to 2019, (re)insurance participation averaged 25%. However, during the COVID-19 crisis (2020-2021), this share surged to 42% — precisely when market stability was most critical. Notably, even after market conditions normalized in 2022-2023, (re)insurance participation remained elevated in the 36% to 39% range (about 40%), significantly above pre-crisis levels.

This sustained increase underscores two key strengths of (re)insurance capital:

- Long-Term Orientation: (re)insurers operate under a business model that prioritizes long-term risk partnerships over short-term, opportunistic trading. This commitment allows them to maintain or even increase capacity during periods of market stress when other investors may retreat.
- Regulatory and Structural Advantages: the regulated nature of (re)insurers, coupled with their matched asset-liability structures, mitigates the need for forced selling that often constrains funded investors during market disruptions. This inherent stability contributes to a more reliable source of capital for GSEs.

The GSEs' strategic decision to maintain higher allocations to (re)insurance post-crisis provides compelling evidence of the value they place on this stability and resilience.

Chart A1: Market Share of (Re)insurance and Cash (Funded) Market Investment in CRT



Source: Data: FreddieMac, FannieMae; Analysis: Arch

[55] FannieMae, CAS Pricing, https://capitalmarkets.fanniemae.com/credit-risk-transfer/single-family-credit-risk-transfer/connecticut-avenue-securities/cas-pricing

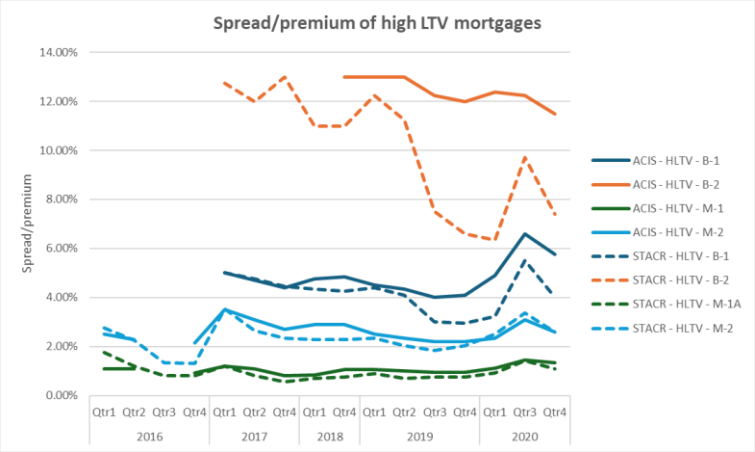
[56] FreddieMac, STACR Pricing, https://capitalmarkets.freddiemac.com/crt/securities/pricing

[57] While the European market structure differs, the insights gleaned from the U.S. GSE experience offer valuable lessons for EU financial institutions seeking robust and stable credit risk transfer mechanisms.

3. Price Stability: Mitigating Volatility and Enhancing Cost Efficiency

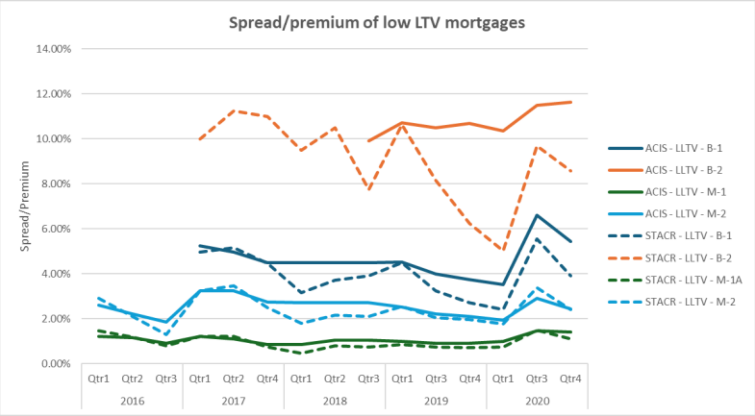
A comparative analysis of spreads between funded (STACR) and unfunded (ACIS) programs at Freddie Mac from 2016 to 2020 further highlights the superior price stability offered by (re)insurance capital. Our analysis considers both high-risk (B-tranche) and lower-risk (M-tranche) segments within two key mortgage categories (see Charts A2 and A3): high loan-to-value (LTV) (81-97%) and low LTV (61-80%) loans.

Chart A2: Price of Funded and Unfunded CRT for High LTV Mortgages



Sources: Data: FreddieMac; Analysis: Arch

Chart A3: Price of Funded and Unfunded CRT for Low LTV Mortgages



Sources: Data: FreddieMac; Analysis: Arch

While both funded and unfunded programs experienced price increases during the 2020 crisis, the degree of volatility differed significantly. Funded CRT spreads exhibited substantially greater volatility in both crisis and non-crisis periods. This price stability advantage of unfunded CRT programs translates into tangible cost efficiencies for GSEs through:

- Predictable execution costs: Unfunded programs offer more predictable costs for regular issuance, facilitating more accurate budget forecasting and capital planning.
- Reduced market timing risk: The stable pricing of unfunded CRT reduces the need for costly market timing strategies when transferring risk.
- Lower liquidity premiums: The buy-and-hold investment approach of (re)insurers minimizes the need for frequent trading, resulting in lower liquidity premiums.

The consistent pricing offered by (re)insurance also enables more effective long-term capital planning for GSEs, generating operational efficiencies beyond direct cost savings.

4. Conclusion

This analysis provides compelling evidence that (re)insurance-based CRT programs offer significant advantages over funded alternatives. The data demonstrates that (re)insurers not only maintain more stable pricing across market cycles but also increase their risk capacity precisely when it is most needed—during periods of market stress. This combination of price stability and reliable capacity results in greater cost-efficiency and enhanced risk management for GSEs. Specifically, stable pricing facilitates more effective capital planning, while reliable capacity eliminates the need to pay premium prices during periods of market volatility. These findings have important implications for GSEs and other financial institutions seeking efficient and resilient CRT solutions.

Appendix A2: Key CRT concepts with FHFA

The key CRT concepts with FHFA **include cost-effectiveness, resilience, capital relief.** The following is an extract from FHFA (2022b). Emphasis added.

> *[…] CRT can be a cost-effective, economically sensible option to absorb credit losses in a severe housing downturn when compared to equity capital.* ***An economically sensible CRT is not one that is low-cost on an absolute basis, but rather one where the cost to the [****GSE****] for transferring the credit risk does not exceed the cost to the [****GSE****] of self-insuring the credit risk being transferred using equity capital.*** *CRTs are insurance against a severe stress to the housing sector and protect the Enterprises against high-cost, low-probability events, even when those events do not occur.* ***Therefore, the lack of significant defaults does not imply that CRTs are ineffective or economically unreasonable.*** *CRT premiums should be weighed against the relief from capital requirements, imputed capital constraints, imputed or actual costs of capital and other factors.* ***Since 2013, FHFA has encouraged the Enterprises to engage in economically sensible transactions and to account for both the costs and benefits of CRT transactions.*** *Market conditions, in addition to a transaction's cost and structure, ultimately determine a CRT's relative profitability. If CRT premium payments are low relative to the cost of additional equity capital an Enterprise would need in the absence of the CRT, then the Enterprise has the opportunity to execute economically sensible CRT transactions that provide credit risk protection at a lower cost than equity capital.*
>
> ***In addition to being economically sensible, the CRT market has recently been shown to be relatively resilient to economic shocks, assuaging some concern as to the market's long-term viability.*** *Following the immediate onset of the COVID-19 pandemic in the United States, financial markets, including CRT markets, experienced a liquidity shock and spreads widened significantly. In response, the Enterprises halted their CRT issuances.* ***However, as housing markets rebounded in the second half of 2020 from the economic stress caused by COVID-19, Freddie Mac resumed securities and reinsurance CRT issuance at an accelerated pace, providing evidence that CRT represents an effective tool for distributing credit risk through the economic cycle.*** *Due in part to the observed resiliency of the CRT market, FHFA continues to believe that CRT could facilitate regulatory capital planning in furtherance of the safety and soundness of the Enterprises and their countercyclical mission, and that the [GSEs'] CRT programs can help facilitate the continued acquisition of higher risk loans throughout the economic cycle due to capital relief afforded to risk transfer.*
>
> *To further encourage the [*GSEs*] to engage in CRT, the proposed rule would amend the CRT securitisation framework by replacing the 10 percent risk weight floor assigned to* ***any retained CRT exposure with a 5 percent risk weight floor. This would address concerns that the current risk weight unduly decreases the capital relief provided by CRT and reduces the Enterprises' incentives to engage in CRT.***

Appendix A3: The EU SECR that fragments the STS market

This appendix explains how interactions of amendments in SECR resulted in a fragmentation of the investment landscape for (re)insurers. This is an extract from Paris Europlace (2024a).

The first issue is that Article 26e(8)(a) of SECR restricts the participation in the STS market in an unfunded form to a select few multilateral banks (EIB/EIF, EBRD, etc.). The article states (with emphasis added):

> *"SECR 26e(8). A credit protection agreement shall take the form of:*
> *(a) a **guarantee** meeting the requirements set out in Chapter 4 of Title II of Part Three of Regulation (EU) No 575/2013, by which the credit risk is transferred to any of the entities listed in points **(a) to (d) of Article 214(2)** of Regulation (EU) No 575/2013, **provided that the exposures to the investor qualify for a 0% risk weight** under Chapter 2 of Title II of Part Three of that Regulation;*
> *(b) a guarantee meeting the requirements set out in Chapter 4 of Title II of Part Three of Regulation (EU) No 575/2013, which benefits from a **counter-guarantee** of any of the entities referred to in point (a) of this paragraph; or [...]"*

This can be translated in layman's terms as: a credit protection can be unfunded as it is already authorised in the CRR, on the condition that it is transferred to (a) a sovereign or central bank, (b) a regional government or a local authority, (c) a public sector entity similar to a sovereign or (d) a multilateral development bank (MDB) that is 0% risk-weighted, and for STS only, the SECR adds a new restriction to ensure that those public entities mentioned in (a), (b), (c) need to be CQS1 (i.e., AAA or AA).

In other words, the SECR is splitting the European Union countries into 'good ones' (roughly speaking Northern Europe) that can provide unfunded guarantees for STS transactions and 'bad ones' (roughly speaking Southern Europe, and Central and Eastern Europe (CEE)) that cannot and, thus, need to be intermediated by MBDs such as the EIF or the EBRD. We view this state of affairs as regrettable and another example of fragmentation of the capital markets by the 'devil in the details' of the securitisation rules. Furthermore, economically speaking, it is difficult to comprehend as to why public entities in Southern Europe and in the CEE can provide guarantees for non-STS transactions, but not for STS transactions. To have those sorts of rules entrenched in the European legislation raises wider governance issues as to rulemaking in the ESAs, or as to the oversight of the European Commission or as to the scrutiny rights of the European Parliament.

Furthermore, points (a) and (b) of paragraph 26e(8) are only concerned with risk taking in an unfunded format by public institutions, while the private sector is handled in the next point (c), where the notion of risk weight of the counterparty is entirely ignored. And this raises the second issue. The point (c) states (emphasis added):

> *"SECR 26e(8). A credit protection agreement shall take the form of: [...](c) another credit protection not referred to in points (a) and (b) of this paragraph **in the form of a guarantee**, a credit derivative or a credit linked note **that meets the requirements set out in Article 249 of Regulation (EU) No 575/2013**, **provided that the obligations of the investor are secured by collateral** meeting the requirements laid down in **paragraphs 9 and 10 of this Article**.;"*

And paragraph 26e(10) states (emphasis added):

> *"Where another credit protection is provided in accordance with point (c) of paragraph 8 of this Article, the originator and the investor shall have recourse to high-quality collateral, which shall be either of the following: […] (b) **collateral in the form of cash held with a third-party credit institution with credit quality step 3 or above in line** with the mapping set out in Article 136 of Regulation (EU) No 575/2013."*

In essence, the SECR amendments invalidate the intention of the CRR. Indeed, this series of chained paragraphs can be translated in layman's terms as: (re)insurers can provide credit protection in the form of unfunded guarantee as it is explicitly allowed in the CRR (as Article 249(3) refers back to 201(1)(g) mentioned above), and then SECR overrides the CRR by saying that the obligations of the (re)insurers must be collateralised (i.e., funded). Moreover, the (re)insurer needs to be well capitalised because it needs to be CQS 1 or CQS 2 and not lower, but still immediately provide collateral to a potentially less well capitalised third-party bank as the latter can be CQS 3.

The 'Covid Quick Fix' has generated a situation for (re)insurers that is pure Kafka, both with a SECR that invalidates the intention of the CRR, and with the regulation that forces the financially stronger counterparty having to post collateral with a weaker counterparty. It is thus not surprising that highly regulated, well capitalised and well diversified (re)insurers are not participating actively in the STS market, remaining active in the non-STS space. It is a missed opportunity for the EU competitiveness that is unable to offer investment opportunities to European (re)insurers, and unable to make use of European (re)insurers capital deployment capabilities, when the largest global non-life insurance champions are based in Europe.

Appendix A4: The Fear of the Insurance sector risk vs. the Quantification of the risk

Two concerns often expressed by regulators are the 'default risk' and 'downgrade' risk of (re)insurers. This Appendix addresses the quantification of these risks.

I. Risk of late payment or non-payment of the credit protection amount when a borrower or counterparty defaults

There are three mitigating factors when the credit provider is a (re)insurer:

1) (Re)insurers are regulated entities subject to regulated capital and liquidity requirements; they typically are highly rated, and well capitalised in accordance with their regulatory/Solvency II capital requirements. Their strength come from the diversity of their insurance portfolios. This means that the risk of non-payment is extremely low. Additionally, this very low counterparty risk is also accounted for in the banks' own capital requirements in the risk-weight which the originator is required to apply in respect of that (re) insurer under the CRR, and specifically the counterparty requirements.
2) (Re)insurers have been present in the EU SRT market on an unfunded basis since 2018, and claims posted by banks have been paid by insurers in a timely manner. This is consistent with the experience of the broader loan-by-loan credit insurance market.
3) The terms of the unfunded credit protection contracts used in SRT securitisations have broadly originated from funded credit protection contracts. They are very different from those used in credit insurance more generally and provide (re)insurers, as protection providers, with far fewer opportunities to challenge their liability for losses incurred on the relevant tranche. Furthermore, unlike traditional insurance, in an unfunded credit protection the (re)insurer pays 'first' meaning the (re)insurer pays out on initial/interim losses on protected tranches before the bank/originator recoups recoveries (e.g. through the sale of assets and the work-out process).

II. Risk that the unfunded CRM provider may be downgraded and then cease to be eligible to provide unfunded credit risk mitigation

1) Downgrade risk: The risk that a (re)insurer would be downgraded to a level at which it would no longer be an eligible protection provider for an SRT securitisation **is low**.

   According to Marsh McLennan[58], this can be quantified from the global average transition rates extracted from publicly available credit research by S&P with respect to insurance companies. During the period 1981-2023, out of 565 credit ratings issued to insurance companies rated A- and above (at least CQS 2), only 1 was downgraded to BB+ or worse (CQS 4 and below), and only 10 ratings observed migration to BBB+ or BBB (CQS 3).

   Even if a (re)insurer's downgrade were to occur to the point it ceased to be eligible to remain the counterparty to an unfunded SRT securitisation, this does not mean that the bank will suffer a loss. In practice, the bank would most likely terminate the contract with the relevant (re)insurer and seek to execute a replacement credit protection arrangement with a different protection provider – starting by the other (re)insurers in the syndicate.

   The risk of downgrade applies to all insurance policies worldwide and is part and parcel of financial markets, and given their low probability, there is no a reason to fear the use of unfunded protection in the first place. This is especially true in the context of CRR where the risk of a disappearing counterparty itself benefits from specifically allocated capital.
2) Default risk: Over the long-term, as per S&P (2024): "*The average default rate for insurance companies between 1981 and 2023 remains the lowest of any financial or nonfinancial sector*." It is 0.06% for insurance companies, 0.42% for banks, and 1.88% for nonfinancial entities.

   In the EU, there has been no insurer default of credit (re)insurers since 1992.

[58] Marsh McLennan contribution to the EU consultation ((Row 45 in EC (2025))

Appendix A5: Simplified economics of Unfunded and Funded SRT

Currently, a bank seeking synthetic SRT will calculate the viability of the securitisation by comparing the cost of capital before and after securitisation. There are many elements that are relevant to a proper pricing, but they can be simplified as follow.

Before securitisation

- X: cost of pre-securitisation capital per annum for the referenced pool of assets

After securitisation

- Z1: cost of premia per annum (above a risk-free rate Z0) on securitisation mezzanine/first loss tranches
- Z2: cost of counterparty risk capital requirement on the protection provider
- Z3: cost of capital for the retained senior tranche

So, if Z1+Z2+Z3 is less than X the transaction makes sense, from the point of view of the SRT bank. (Moreover, Z3 in the EU will be dependent on whether a transaction is STS or non-STS, with non-STS being 50% more expensive than STS).

From the investor point of view, the total premium amount Z1 can be broken into four components, such that, Z1 = Z1a + Z1b + Z1c + Z1d, where:

- Z1a = remuneration required by the protection seller on the risk linked to the referenced pool of assets
- Z1b = cost to the protection seller of funding the collateral (most of the time cash collateral and/or cost of leverage)
- Z1c = remuneration required by the protection seller on the bank counterparty risk that is holding the collateral (for cash collateral, that is the depositor bank)
- Z1d = the insurance premium tax (IPT) that is a function of the relevant jurisdictions, structure and protection seller

In a *funded* transaction, there is no Z1d and no Z2, and in an *unfunded* transaction, there is no Z1b and Z1c. Therefore, assuming that Z1a has the same value for all investors, if the *unfunded* (Z2 + Z1d) is lower than the *funded* (Z1b + Z1c), the unfunded transaction is cheaper than the funded one (notwithstanding the lower operational and execution costs of an unfunded transaction compared to a funded transaction).

In real life, the regulatory nature of the investor will lead to a different Z1a. Unfunded (re)insurers will assess and price risk through the cycle, whereas funded credit funds will price relative to credit spreads of alternative investment opportunities at the time of executing a transaction. In the EU, the sensitivity to 'market environment' of funded investors puts pressure on supervisors to shorten the time needed to produce a pre-trade approval − to the point that a fast-track approval initiative was launched by the SSM in 2024 to respond to the banks' complaints that pricing risk was too high and due to the delay in obtaining the capital relief. By nature of their business model, (re)insurers are far less sensitive to market environment, and are able to maintain their price commitments over much longer periods, further reducing the execution risk.

An issue for the long term stability of the market is that some funded investors have a minimum yield requirement, Y, such that (Z0 + Z1) needs to be greater than Y, which leads to situations where Z1 is no longer a true element of risk pricing, and can thus lead to interest-rate-induced mispricing.[59] Leveraged and funded investors with minimum requirements can exacerbate this effect, with the additional danger of spill-back effects in the banking system as a whole.

For funded transactions, one way to reduce the cost Z1c is for the collateral to be an instrument other than cash (such as UK gilts), and some UK banks propose to investors structures with cash and non-cash collateral. Whether this route is appealing or not to investors is often linked to the SRT bank being also the depositor bank, in which case the external rating of the SRT bank becomes relevant to the analysis.

[59] See RTRA Intelligence: "SRTs soars", 28-Jan-2025. https://rtraintelligence.com/publications/srts-soar/

Appendix A6: Unintended effects of rating triggers in collateral requirements

While passing the legislation on the STS synthetic framework, in an attempt to protect investors against counterparty risk the EU has weakened both SRT investors and SRT banks with regards to the component Z1c (see Appendix A5).

The originator bank issuing STS CLNs is exposed to collateral management issues (themselves source of financial instability).

If the originator bank also wants to be the depositor bank, it needs to be rated at least CQS 2 (AAA, AA, A). However, bank ratings are subject to a sovereign ceiling by the rating agencies, and this currently impacts some countries.

For example, Italian banks cannot reach CQS 2, regardless of their inherent credit quality, due to Italy's own credit rating. The best ratings are CQS 3 (BBB). Thus, Italian banks were until recently unable to execute STS transactions, unless they relied on the use of Multilateral Development Banks guarantees. The problem was 'fixed' in June 2024 with a granting by the EBA of a regulatory exemption given to Consob, the Italian banking regulator, lowering the requirement to CQS 3 (see EBA/Op/2024/03).

To the best of our knowledge, the exemption has not been granted so far to any other Member State, in particular, to Central and Eastern European countries in a similar situation.

Also, in the future, depending on the sovereign debt rating trajectory of European countries whose banks are major SRT issuers under the STS format, and also holders of the cash collateral, all those banks would need to post such cash collateral to banks outside their jurisdiction in case of country downgrade, which might compound liquidity problems at a worse possible time. More regulatory exemptions from supervisors will then be necessary to avoid financial instability and enable the STS label to protect banks and investors.

This is why the 2021 Synthetic STS framework should not have added so strict collateral criteria, but let the EBA, supervisors and SRT investors decide on the most appropriate requirements at transaction level.