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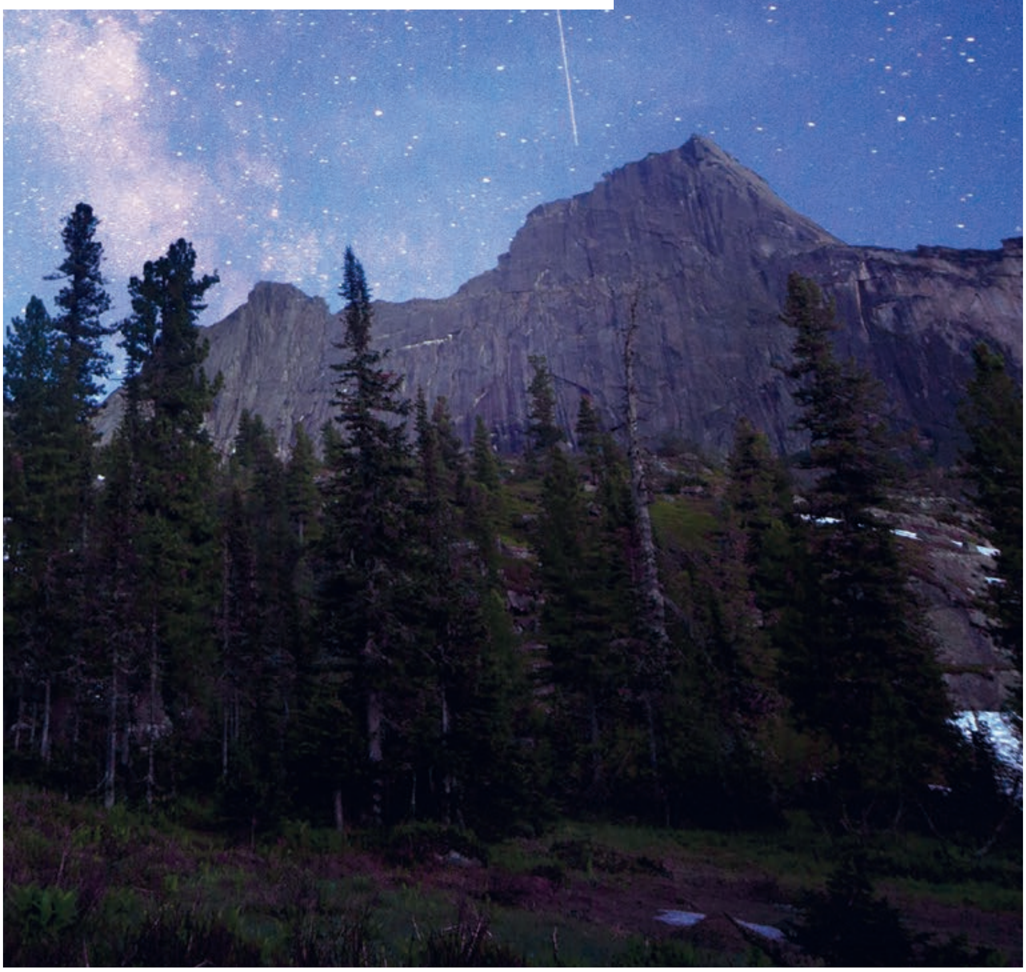

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Published October 2022

ISSN: 2043-7900

SCI is published by Cold Fountains Media.

INTRODUCTION

Synthetic securitisation, once tarnished by association with the global financial crisis, has long since come in from the cold. The regulatory framework has developed significantly in Europe since the introduction of the new European Securitisation Regulation in January 2019, culminating in the inclusion of significant risk transfer transactions in the STS regime in April 2021. This label has provided CRT deal flow with additional momentum, broadened the issuer base and helped to legitimise the market.

So, how has the landscape evolved since then? While Europe has historically been the centre of CRT activity, what are the prospects in the US and beyond? We talked to market insiders, issuers and investors to find out what they make of current trends and what the outlook is for SRT, given today's macroeconomic headwinds.

From war in Ukraine and the resulting soaring energy and commodity prices to interest rates reaching levels not seen for years, the combination of factors creates a challenging environment; perhaps making CRTs look like an even better bet from an issuer perspective.

But they are complex deals, which require board-level buy-in and months of preparation prior to execution. Previously considered suitable only for highly sophisticated IRB banks, now regional and standardised banks are beginning to dip their toes into the market.

And on the buy-side, there are now more options than ever before – (re)insurers, SRT specialist funds, credit opportunity funds, hedge funds, pension funds and private equity funds. Banks can pick and choose an investor type, depending on the asset class, the goals they are trying to achieve and at what price.

CHAPTER ONE:
REGULATORY EVOLUTION

The regulatory framework for capital relief trades in Europe has evolved since the implementation of the EU Securitisation Regulation[1] in January 2019, culminating in the inclusion of SRT transactions in the STS regime. But among the most significant regulatory developments is something that isn't formal regulation at all.

In 2017, the EBA published a discussion paper on SRTs. David Saunders, executive director of Santander's European securitised products group, says: "Theoretically, it had no application into law or regulation – however, the joint supervisory teams (JSTs) at the ECB have essentially used it as their manual when analysing SRT transactions. It's almost become de facto regulation."

The 2017 paper, along with subsequent improvements in the ECB's approach, helped make the regulatory process for SRT clearer, enabling banks to better understand the various steps they need to take when issuing a synthetic securitisation. In a lengthy section on structures, it provided a number of key points and indicated how banks need to address them in order to gain regulatory approval.

The EBA's subsequent SRT report from 2020 built on the 2017 discussion paper and the lessons learned since then. Seamus Fearon, Arch MI evp, CRT and European markets, says the report set the scene and the European Commission largely adopted what the EBA had been advocating.

"There was a good coming together of technical grounding and political will to get something done quickly," he observes. However, he adds: "In comparison to the timeline of the original securitisation framework, it was potentially rushed."

Robert Bradbury, head of structured credit execution and advisory at Alvarez & Marsal, notes that the 2020 report was useful. "It spells out the specific details of the quantitative tests you can run to demonstrate that you have transferred risk, taking into account all the different factors, such as premium, timings and how your losses are allocated. If you pass all such tests, it's quite challenging to say the bank has not transferred risk. It's not an absolutely final result, but it gives a very helpful quantitative backdrop."

He continues: "It certainly doesn't guarantee success, as there are qualitative and other transaction aspects to consider, but it lays a very solid foundation for that discussion. The expectation of most parties is that you should probably start with that."

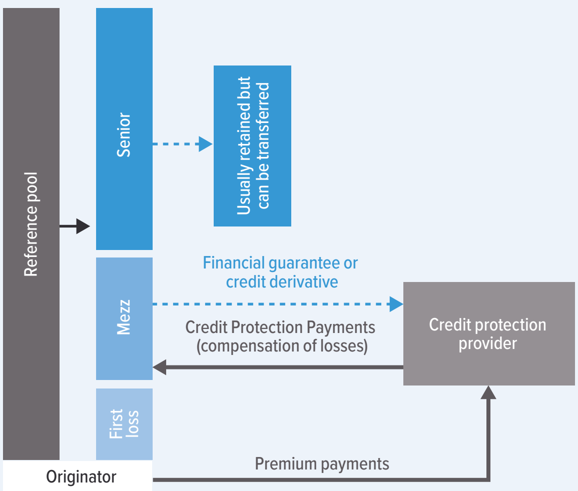
Kaikobad Kakalia, chief investment officer at Chorus Capital Management, agrees that the

Seamus Fearon, Arch MI

guidance on SRT is helpful for issuers to understand how they should structure in order to claim RWA relief from the ECB or their home country regulator. "One of the key differences is the setting of the first call date. Historically, that used to be set at the weighted average life (WAL) of the portfolio. But the EBA is now guiding towards

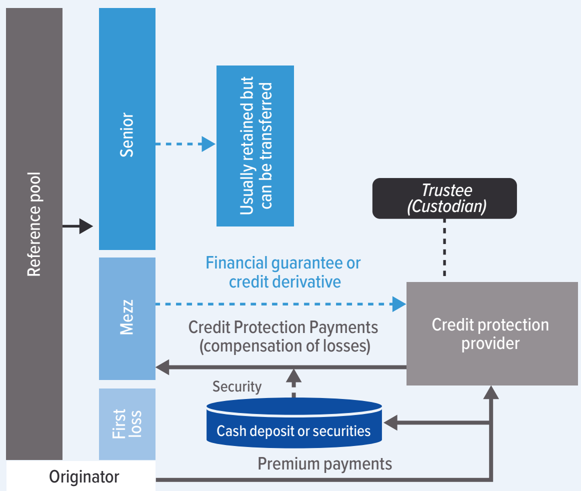
> "THERE WAS A GOOD COMING TOGETHER OF TECHNICAL GROUNDING AND POLITICAL WILL TO GET SOMETHING DONE QUICKLY"

Unfunded structure (usually with supranational, sovereign or public counterparty)



Source: PCS

Funded structure v1 (usually with a bank, fund or insurance company as protection provider)



Source: PCS

[1] incorporating both the EU Sec Reg 2017/2402 and the 2017/2401 amendment to the CRR

the WAL of the transaction, the portfolio WAL plus the replenishment period," he says.

He adds: "A typical European SME transaction, which would have had its first call set at three to four years, is now likely to be a couple of years longer if it includes replenishment."

But the EBA's proposed treatment for high cost of credit protection creates a meaningful issue, because higher risk portfolios may fail SRT and become more difficult to structure for SRTs, thereby reducing options for banks.

Mistaken assumptions

Indeed, some market participants are critical of the 2020 EBA report. Olivier Renault, md, head of risk sharing strategy at Pemberton Asset Management, says: "When it came out, that was a big deal – except that very little has happened since then. That's bad, due to lack of clarity, but also good that it hasn't been fully implemented by domestic regulators because some of the details were incredibly impractical."

> "WHEN [THE 2020 EBA REPORT] CAME OUT, THAT WAS A BIG DEAL – EXCEPT THAT VERY LITTLE HAS HAPPENED SINCE THEN"

He explains: "The high cost of credit protection is an issue because it can create the wrong incentive for banks. It can also be very difficult to apply some of the tests that the EBA is recommending."

Saunders agrees: "The 2020 report updated the tests and reduced them to two. Unfortunately, they didn't cover all possible scenarios and there were some mistakes made in the assumptions used when calibrating them."

He continues: "We ran a number of scenarios to show that they fail for almost every transaction we've ever done. That's presumably not the intention. If the report was ever to be used by the regulator or converted into regulation, these tests would have to be fixed because they are just fundamentally flawed."

Fortunately, the ECB has agreed a workaround. Saunders says: "Our JST is still using the 2017 paper as part of their supervisory process. The regulator has told us we don't need to follow the 2020 report."

Some feel that the report has resulted in a confused picture and that the failure to harmonise regulation across Europe is a huge missed opportunity. Renault says: "The recommendations haven't been turned into regulation, so each regulator can just feel free to incorporate as much of that or as little of this as they want. Even within the ECB, there are different approaches."

He adds: "The different sub teams take different views. Some sub teams take the view that your transaction needs to comply with all the tests, while others ignore them completely. So, it hasn't led to the desired effect of having a completely equal playing field."

Such lack of consistency has been described as "painful" when structuring a deal. Renault comments: "It is very difficult to design a transaction on the basis that you don't know which rules we need to comply with."

Andrew Feachem, Guy Carpenter

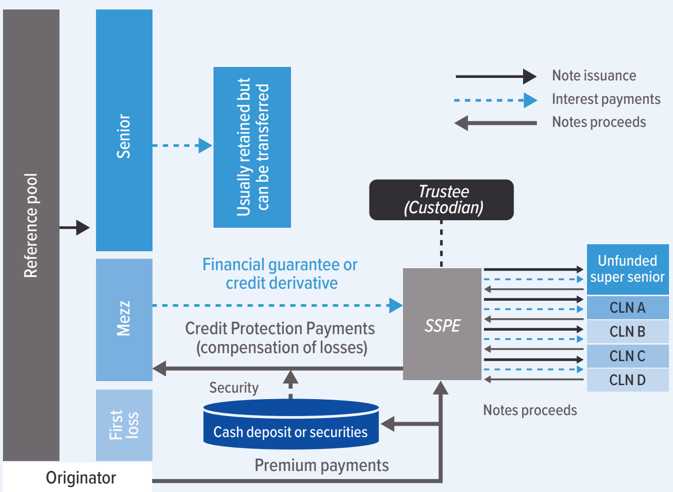
While this may be the case, Andrew Feachem, md at Guy Carpenter, notes that "with a well-designed SRT process and full transparency with the regulator, there is a way to navigate through this uncertainty that increases the likelihood of success."

New options

Regulatory change for the CRT market hasn't been confined to the EBA's reports, however. The EU Securitisation Regulation opened up a whole new set of options that didn't exist previously.

Bradbury says: "It completely changed the way that standardised banks are able to apply securitisation to achieve SRT. It went from a framework in which it was very difficult to demonstrate, typically required ratings and was very expensive and inefficient, to a version in which they can use the securitisation standardised approach, which is much more flexible. Compared to the prior options, it typically gives better results and is more cost-effective."

Funded structure v2 (SPV issues CLNs to investors)



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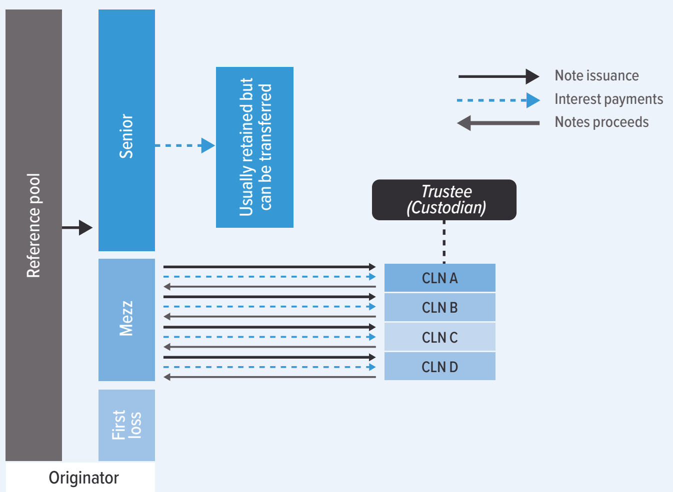
Funded structure v3 (protection buyer issues CLNs to investors)



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“INVESTORS CAN HAVE A MEANINGFUL SAY IN THE SETTING OF REPLENISHMENT CRITERIA, RISK RETENTION AND COUNTERPARTY RISK MITIGATION FEATURES”

A further significant development was the requirement for thicker tranching in order to achieve meaningful capital relief for banks through an SRT. Feachem says: “The banks adapted by issuing dual tranche structures, which also enabled new risk takers to join the market. While the traditional credit opportunity fund investors continued to participate in the junior mezz, the senior mezz tranche appealed to the (re)insurance community and also prompted new funds to be raised targeting lower returns.”

Kaelyn Abrell, partner at ArrowMark Partners, comments: “With institutional and individual investors increasingly relying on private credit as a source of uncorrelated returns, especially in a potentially more volatile market environment, dual tranche structures enable the asset class to potentially align with the objectives of a broader universe of investors.”

Generally, regulations have sought to level the playing field for both SRT issuers and investors. In Europe, under the Capital Requirements Regulation (CRR), there are now well understood procedures that issuers must adhere to in order to execute a successful SRT transaction.

Feachem notes: “This gives confidence to first-time and less frequent issuers to commit the resources required to adopt SRT in their portfolio management toolkit. Similarly for investors, there is a greater appreciation of the features of a transaction needed by the issuer and this helps the due diligence process to be more focused and efficient.”

He continues: “As regulations have evolved, so have the structures. In particular, the implementation of Basel 3 encouraged (re)insurers to become active and for mezzanine focused funds to be raised, and the implementation of Basel 4 is prompting the growth of residential mortgage SRT.”

With banks recognising the benefits of including (re)insurers within their SRT programmes, the flexible combination of funded and unfunded protection within single structures is viewed as a key innovation since 2018. “It has significantly diversified banks’ sources of capital relief, improved SRT price discovery and reduced execution risk. There has been an increase in the flexibility, and standardisation, of banks’ SRT programme documentation to more readily accommodate this combination of funded and unfunded investors across tranches,” adds Feachem.

Kakalia notes that while some structural elements – such as tranche thickness and the setting of the first call date – are driven by regulatory requirements, “investors can have a meaningful say in the setting of replenishment criteria, risk retention and counterparty risk mitigation features,” thus balancing the needs of the issuer with the investors while accommodating all regulatory requirements.

CHAPTER TWO: THE STS REVOLUTION

Another key regulatory development for the CRT market was the inclusion of synthetic securitisation in the STS regime in April 2021. The framework has brought welcome standardisation to what has traditionally been a very bespoke asset class.

Andrew Feachem, md at Guy Carpenter, says: "STS has allowed banks to improve the capital efficiency of transactions, which enables them to include exposures that would traditionally have been marginal with respect to capital relief efficiency via SRT."

Robert Bradbury, head of structured credit execution and advisory at Alvarez & Marsal, concurs that the STS rules have increased efficiency. "It's somewhat more complicated to achieve, but you can now get better results. Adhering to certain well-defined criteria for certain types of transaction which are simple, transparent and standardised, you are able to achieve a better result from an economic and capital perspective, which means that it is much more economical for the bank. It changes the way tranches work and so changes what investors are offered."

In 2017-2018, SRTs were largely restricted to tier one banks, such as Santander, Barclays or Deutsche Bank. But that has now changed.

"We are starting to see the tier two, tier three and tier four banks starting to use [SRT]," confirms David Saunders, executive director of Santander's European securitised products group. "The STS framework will only help. I think we'll now see a similar rapid growth in the use of SRTs by smaller banks."

Olivier Renault, md, head of risk sharing strategy at Pemberton Asset Management, agrees that the STS framework has been extremely positive. "A bank that goes through the pain of getting the STS label benefits from more capital relief for the same amount of tranche base and therefore cheaper cost of relief. We were seeing a lot of banks that were sitting on the sidelines, looking at this market, and thinking the cost of capital is marginal."

Robert Bradbury, Alvarez & Marsal

"THERE WERE 55 BANKS THAT HAD ISSUED BY THE END OF 2021. I WOULDN'T BE SURPRISED IF, AT THE END OF 2022, WE HAD 65 BANKS DOING DEALS"

Stylised economics example for standardised bank*

STS Framework is game changer in the EU

The EU has introduced in Q2 2021 a Simple, Transparent and Standardised ('STS') standard for SRT transactions.

STS securitisations will benefit banks by:

1. Reducing the RW floor on retained senior tranches and
2. Reducing the size of the tranche that needs to be placed for a given amount of capital saving.

This new framework will lead many banks (particularly Standardised ones) becoming users of SRTs as their cost of capital could fall significantly (see opposite).

	Non-STS	STS
J-Mezz placed	2%-8%	2%-8%
J-Mezz spread	10%	10%
S-Mezz placed	8%-25.5%	8%-15%
S-Mezz spread	3%	4%
Cost of capital	12.3%	9.3%
Outcome	Uneconomical, no trade	Attractive, trade possible

* 100% RW, 0.5% provisions, CET1 = 12%

Source: Pemberton Capital Advisors, *SRT Chronicles*, February 2022
An earlier version of this publication was serialised in Structured Credit Investor in October and November 2021

He continues: "Suddenly, for the same trade, they are getting more capital relief and therefore it is becoming more attractive. We see, in particular, medium-sized banks under the standardised approach have started issuing on the back of this EU regulation."

The numbers remain small, but are still growing. Renault says: "There were 55 banks that had issued by the end of 2021. I wouldn't be surprised if, at the end of 2022, we had 65 banks doing deals. [Such an] increase is to a large extent driven by this change in the STS framework."

Although some standardised banks are still expected to execute CRTs with supranationals, such as the EIF, market participants agree that they now have much more choice.

Insurer exclusion

Nevertheless, Seamus Fearon, Arch MI evp, CRT and European markets, identifies one key outstanding issue – the exclusion of insurers from the STS label. "It was disappointing that effectively an insurer couldn't be a participant on STS structures. Given the capital needs that the European banking system will require, as we see the introduction of Basel 4, insurance will be an important tool. Having insurance play a role in the STS structures will be crucial. We're hopeful that that will be looked at again, as discussions continue."

Feachem agrees, but notes that the current lack of unfunded STS synthetics is not preventing insurers from joining the market. "Unfunded non-STS transactions can compare favourably to funded STS transactions from a cost of capital perspective. Furthermore, STS still accounts for a minority of synthetic issuance and there are funding solutions available if needed in the near term. However, we do not view the current range of funding solutions as an efficient use of (re)insurers' balance sheets. As we also see in a couple of major jurisdictions, there is scope for this rule to change, allowing unfunded STS with (re)insurers."

Feachem believes that enabling the participation of (re)insurers, in addition to the already qualifying supranational entities, in STS synthetics will increase liquidity. He suggests that it could also level the playing field between private and public sector financial institutions participating in SRT.

EBA consultations

Other outstanding issues include latest proposals under the EBA's consultations regarding the

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David Saunders, Santander

homogeneity criteria and the determination of the exposure value of synthetic excess spread (SES) in STS synthetic securitisations.

As part of the Capital Markets Recovery Package, adopted by the European Commission in 2020, the EBA is mandated to develop draft regulatory technical standards (RTS) that specify which underlying exposures are deemed to be homogeneous as part of the simplicity requirements for STS. In particular, the proposals adjust the homogeneity factors for on-balance sheet securitisations and more specifically the 'type of obligor' related to corporate and SME exposures.

According to the consultation, banks treat large corporate exposures differently from the rest of their corporate book. Consequently, to ensure a consistent and harmonised application of the requirements, it was decided that the 'large corporate' definition would be used from the European Commission's CRR 3 proposals.

The CRR 3 proposals define the term as "any corporate undertaking having consolidated annual sales of more than €500m or belonging to a group where the total annual sales for the consolidated group is more than €500m."

Nevertheless, the larger issue with the homogeneity consultation is the inability to mix corporate and SME loans, with seemingly no clear rationale. If left as they stand, the EBA proposals run the risk of encouraging less granular portfolios and less financing to SMEs.

Meanwhile, the 2020 EBA report on SRTs had attempted to tackle divergent regulatory practices for SES. The STS framework, in turn, brought in new capital rules for the treatment of SES in 2021.

This year, in August, the EBA produced a further consultation paper on the treatment of SES – with the aim of contributing to a more risk-sensitive prudential framework. Bradbury says: "They want the market's feedback on different options. That's a pretty sizeable uncertainty because they acknowledge that the implementation of the rules has historically differed. They want to try to standardise that."

But Renault describes the EBA's proposal as "very disappointing – frankly, not surprising – but very disappointing." He explains: "At a high level, the EBA's proposal is to calculate the lifetime loss that the bank expects to be borne by SES and to deduct that from capital, while until now European banks were able to deduct only one year of SES."

The EBA paper highlights that just one supervisor has so far treated SES on a one-year rolling basis – a different approach to the maximally conservative line taken by others. Renault adds: "If it's a five-year transaction and the investor is not covering the first 1% of losses each year, the bank needs to provision five years of SES. That's a big capital penalty for the bank. It effectively means that a tool that has been used on dozens of transactions is no longer going to be used by banks and that will reduce the number of transactions in asset classes that tend to have high losses; e.g., consumer or some middle market loans."

Feachem agrees that under the proposals, the originator will have to hold more capital for transactions incorporating SES. "We can potentially see originating banks rebalancing towards using retained equity tranches compared to the SES feature, which had been a big trend in the past few years, given its asymmetric capital treatment. The relevant RTS that is going through the EU legislative process is attempting to harmonise the treatment of these two features," he observes.

While there has been a wave of regulatory change over the past few years, the new rules appear to have largely bedded down. Feachem says: "The rules and guidelines for issuers to follow are clear and this gives confidence to new entrants to build out their SRT programmes."

He adds: "There are still challenges for new issuers to overcome, such as ensuring compliance with reporting requirements, managing portfolio replenishment in practice, and understanding the requirements and constraints of new risk takers, such as the (re)insurers, noting that (re)insurers tend to be constructive and are drawing upon approaches used more broadly in the US CRT market."

Market standard

At the same time, regulators appear to have a greater understanding and appreciation of synthetic securitisation. Renault says: "There is a market standard now arising in terms of how to design the deal, certainly in Europe. Now regulators understand that this product potentially helps banks reduce risk and lend to the real economy."

Saunders concurs: "What you've seen is a convergence in structures. Of course, each deal has its own bespoke elements, but you've seen a lot more standardisation of structures in the past few years. The greater the clarity and certainty for issuers, the more likely they are to do these transactions and the less likely they are to be rejected."

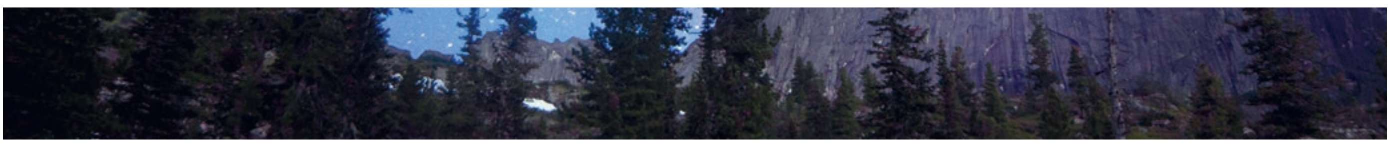
The appetite for SRT is expected to continue to grow among both issuers, investors and (re)insurers. "Other than a blip in relation to Covid, there has been consistent growth. We are about half where we were in 2021 already, but the market is skewed to Q3/Q4; many more deals are happening towards the end of the year," says Saunders.

He adds: "We see more and more investors coming into the space and we are starting to see newer, smaller issuers coming in. Everything points to continued growth."

Nevertheless, Bradbury suggests that the European CRT sector remains a "two-speed market". The larger banks know exactly how it works and which levers to pull, have regular contact with the regulators and know the most relevant investors.

He says it's a different world for non-IRB banks. "The smaller banks are generally less familiar with how the technology works. There are fewer investors able to focus on and execute the relevant kinds of transactions."

"WE SEE MORE AND MORE INVESTORS COMING INTO THE SPACE AND WE ARE STARTING TO SEE NEWER, SMALLER ISSUERS COMING IN"



CASE STUDY: ARROWMARK'S STORY

ArrowMark Partners' AUM has grown dramatically over the past decade and, given the firm's tenure in the asset class, is reflective of the broader CRT market's evolution. The firm entered into its first CRT in 2010, a US$50m investment. Now, it has invested over US$6bn through 82 distinct transactions, deploying approximately US$1bn-US$1.5bn a year.

The drivers behind such growth include dedicating considerable time and resources to educating institutional investors, consultants and individual investors on the asset class. Initial conversations typically focus on the nature of the transactions, issuing bank motivations and market dynamics, before shifting towards how exposure to the asset class can fit within a broader investment portfolio.

Investors are increasingly recognising the ability of capital relief trades to complement traditional credit exposure, with a full understanding of liquidity differences, and other commonly-held private exposures. The benefits of floating-rate income and the shorter investment life of CRTs can provide material value to a private asset allocation, despite not offering the same advertised returns as private equity.

> "IF WE HAVE THE INTERNAL ANALYTICAL CAPABILITY TO UNDERSTAND AND EVALUATE COLLATERAL RISK, WE ARE WILLING TO CONSIDER AND INVEST IN A VARIETY OF TRANSACTIONS"

Kaelyn Abrell

One of the most significant changes in recent years is the establishment of dedicated private credit allocations. Particularly among institutional investors, this has created a natural home in investor portfolios for CRT exposure.

There are investors that have allocated to all the fund vintages, with ArrowMark funds representing a core allocation within their portfolios. The firm also engages with investors and consultants that are newer to the asset class.

Investment managers are "agnostic" on CRT asset type and/or geography, according to ArrowMark partner and portfolio manager Kaelyn Abrell. "If we have the internal analytical capability to understand and evaluate collateral risk, we are willing to consider and invest in a variety of transactions. Ultimately, we are searching for a specific risk/return profile," she explains.

She continues: "For us, the goal is to generate a reasonable rate of return in a more benign macroenvironment, while also demonstrating an ability to preserve principal in a severe economic scenario. As our platform has grown, so has the CRT market. Market growth has allowed us to increase our activity while remaining selective."

Overall, the increased ability to raise capital in the CRT space – including capital from investors with differing risk/return objectives and time horizons – has facilitated even stronger collaboration with the firm's issuing bank partners.

CHAPTER THREE: GROWING THE INVESTOR BASE

Given the complexity of the instrument, CRT was once a minority sport, involving only a small number of highly sophisticated investors. But the picture is changing, in line with a better understanding of the regulatory environment, as well as the risk and rewards involved.

Kaelyn Abrell, partner and portfolio manager at ArrowMark Partners, says: "Market dynamics support our belief that SRT is already exhibiting characteristics of more mature financial markets. Examples include the shift from predominantly bilateral transactions to club and syndicated deals, the development and growth of a secondary market – with a particular focus on the period following the initial onset of the Covid pandemic in 2020 – as well as increasing access to financing through various forms and counterparties."

She adds: "All of these factors are representative of the maturation of the asset class and increasing acceptance by banks, asset managers and investors."

Indeed, a significant number of new investors have entered the market in recent times, with (re)insurers also emerging as key participants. Jeffrey Krohn, mortgage and structured credit leader at Guy Carpenter, notes: "The US CRT market is supported by over 30 reinsurers, which will provide almost US$19bn in capital relief in 2022. Many of these reinsurers see the opportunity in the SRT market and are attracted to the thicker tranche requirements that better appeal to their appetite. The challenge is to attract this growing pocket of capital in a thoughtful way as we move into a Basel 4 world."

Andrew Feachem, md at Guy Carpenter, adds: "We have seen a number of the junior tranche-focused investors raise mezzanine funds with lower target returns, a trend we expect to continue. Finally, new investors have also joined the market in line with the growth of new SRT asset classes, such as residential mortgages and auto loans."

Relationship building

Increased investor appetite is driving a higher volume of deals, year on year, across a wider range of collateral types, originators and geography. At the same time, originators recognise the need to diversify their capital base, so they're actively building relationships with new counterparties.

Seamus Fearon, Arch MI evp, CRT and European markets, believes: "Relationships with the client are very important in Europe. Many of our clients want to deal directly with the insurer, rather than an intermediary. In comparison to GSE CRT, I think we will see a smaller number of large insurers in the space, potentially partnerships between insurance companies to combine capacity, more bilateral deals and potentially less intermediation."

He adds: "New investors have specific risk appetites and, as there are a wider range of deals to pick from, different investors can build a diversified portfolio specific to their risk appetite."

The growing demand for more diversified sources of capital may point to some issuers seeking multilateral transactions to aid new investors to enter the market and develop their appetite for SRT. Tim Armstrong, md at Guy Carpenter, notes that "the market is undoubtedly growing and third parties will be needed to grow investor and (re)insurance capacity in line with banks' issuance needs. Increased investor and (re)insurance uptake will lead to a more balanced and transparent market, while also addressing the counterparty limit constraints already being faced by some issuers."

This is an area of focus for Guy Carpenter, where provision of analytics is a key factor in engaging with unfunded investors. "(Re)insurers will reserve judgement on a given transaction until they are compared to other transactions in which they've participated. Thoughtful analytics and comparisons to other available data are essential to facilitate underwriters' decisions," adds Feachem.

However, Abrell notes that in order for investors to allocate capital to CRT, estimated returns must be in line with other comparable private assets or provide an illiquidity/complexity premium compared to liquid credit markets. "As a result, there is a floor on spreads that, if breached, would begin to limit the amount of capital available to deploy in the asset class."

Barriers to entry

Indeed, complexity remains a key issue. Kaikobad Kakalia, chief investment officer at Chorus Capital Management, says: "Investors need to develop an understanding of banking regulation, in order to understand the issuer's motivation and the transaction's structure. They need to combine this with knowledge of structured finance and have the ability to analyse credit."

> "WE HAVE SEEN A NUMBER OF THE JUNIOR TRANCHE-FOCUSED INVESTORS RAISE MEZZANINE FUNDS WITH LOWER TARGET RETURNS, A TREND WE EXPECT TO CONTINUE"

Abrell agrees that the expansion of the issuer base and asset types allow investors to tailor their strategies, based on the risk/reward targets that they are trying to achieve, and provide greater choice in meeting those objectives. "We believe CRT continues to offer a unique and attractive value proposition for investors. The primary reason is the supply and demand dynamic," she explains.

Overall, investors are now seeing CRT as a more sustainable asset class. As such, there is greater comfort in investing in building teams and the necessary modelling tools.

"Access to data and appropriate modelling tools are key – most SRT transactions are bespoke and so the usual off-the-shelf models don't really apply," says Feachem.

Feachem agrees that risk takers need to get to grips with the underlying regulation, as well as which features in an SRT are a 'must-have' rather than a 'nice-to-have'. This, in turn, speeds up due diligence and, critically, reduces execution risk from a bank's perspective.

"This business is not designed with insurers in mind," observes Giuliano Giovannetti, co-founder of Granular Investments. "The whole contract language and structures are similar to credit default swaps. It's very unfamiliar territory for a lot of insurance companies and requires a lot of education and investment on their side to get into this space."

A further barrier to entry for investors is the ability to raise capital, with a seven- to eight-year lock-up for an illiquid and complex strategy that is not straightforward to explain to clients. The investor base is the constraining factor for bank issuance: the amount of assets on bank balance sheets is massive, compared to the amount of money that investors have raised to invest in those assets.

On average, large European and North American banks have used about 4%-5% of their corporate credit assets to issue risk-sharing transitions. Only a handful of banks have gone well above 6%-7%.

Roughly 50 to 55 banks have issued CRTs in the last five years, of which 40 are in the Eurozone and regulated by the ECB. This represents around 32% of the banks directly regulated by the ECB, so there is significant room for that number to grow. For banks with subsidiaries in different parts of Europe, SRT technology is expected to spread across geographies relatively quickly.

"ALL THE REQUIREMENTS FOR THE GROWTH OF THIS MARKET ARE NOW IN PLACE. AS THE MARKET GROWS, WE WILL SEE INCREASED APPETITE FROM EXISTING AND NEW INVESTORS"

"Bank issuance is growing at a 25%-30% rate per annum. This allows the market to grow with proper controls and in a sustainable manner, while doubling in size every 3-5 years," Kakalia says.

Representative of this dynamic, spreads at issuance have ranged approximately +/-200bp from 2013 levels, despite other areas of credit experiencing very different pricing dynamics.

Kakalia adds: "All the requirements for the growth of this market are now in place. As the market grows, we will see increased appetite from existing and new investors."

Abrell notes: "We agree that the investor base will continue to experience incremental growth; however, we believe that sensitivity surrounding confidential bank information will always be a moderating factor."

ESG potential

The potential for SRT to unlock ESG financing is particularly attractive to some investors. Adelaide Morphett, an associate at Newmarket Capital, says: "SRT represents one of the most catalytic, scalable investment opportunities pertaining to net zero. By investing in structures that free up regulatory capital, SRTs have the potential to unlock a significant amount of positive new impact lending."

Newmarket specialises in turning brown finance green. Morphett believes that her firm is "the only private sector SRT investor that has embedded requirements for a bank counterparty to lend freed-up capital towards new positive impact."

Referencing a pool that isn't 100% green under the EU Taxonomy but incorporates some kind of on-lending requirement "is an innovative and creative approach to net zero," she adds.

Importantly, issuers still need to improve data integrity and transparency to ensure ESG deals live up to their promise. Proposed legislation, such as the SEC's ESG disclosures, and the requirements for SFDR Article 8 and 9 funds "suggest that expectations are shifting," Morphett says. She continues: "More visibility into ESG criteria is a great step towards eliminating greenwashing, but it will be important to ensure standardisation does not come at the expense of innovation."

Supranationals are key players in the CRT market, in terms of both facilitating ESG financing and stimulating bank lending to the real economy.

Adelaide Morphett, Newmarket Capital

Georgi Stoev, EIF

The EIF, for instance, has been investing in synthetic securitisations in different shapes and forms since the 1990s. SRT transactions enable issuers and investors to create more impact with fewer resources, according to Georgi Stoev, head of Northern Europe and CEE at the EIF.

"With SRT, for a single euro, we are able to support more lending in the European economy. A €100m SRT investment would result in anything between €400m-€1bn of loans, of which the green share could be upwards of 10%. We're moving towards expecting the originators to commit to 10%-30% to be composed of green loans," he says.

In fact, the EIF has begun moving towards a system where new portfolios are formed of loans that allow various climate-related issues to be solved. "We very much want to support leases or loans, where the SME wants to invest in an electric vehicle fleet or insulate its buildings, or exchange old equipment for new energy saving equipment," Stoev explains. "If we enter into a transaction with e.g. Santander Leasing Poland on a portfolio that comprises leases for diesel cars, we can ask them to build a new portfolio – e.g. five times the invested amount – which is entirely used for loans for electric cars. That's 'use of proceeds': we invest in something that could be as brown as it can get, but the outcome must be green."

Stoev is confident about the future of the ESG SRT sector. "Growing awareness that climate action needs to be taken as soon as possible makes me a firm believer that the share of use-of-proceeds specifically targeted for climate-related issues can only grow. Such commitment over and above the payment of a guarantee fee or insurance premium for protection provided was not the norm in pure market-driven organisations up until a couple of years ago."

However, Newmarket sees some potential dangers ahead. Morphett says: "It largely depends on regulatory considerations. Regulations could certainly hold back ESG SRT issuance, due to potential thresholds and limits."

An EBA report from last December raised the question of whether synthetic securitisation needs its own sustainable framework,

THE (RE)INSURER PERSPECTIVE

Credit insurance brings many advantages for risk transfer strategies, including diversity and stability of capital sources for originators. Additionally, unfunded structures are often less complicated and the transaction execution is more straightforward.

For the typical, fully funded CRT investor, there are times when the price of their protection can be influenced by exogenous factors that have little to do with the underlying risk of a specific asset class or geography. These factors, including liquidity risk and increased duration, are currently at play in the US credit risk transfer market where funded spreads have widened up to 200% while the underlying risk outlook might only be up 10%-20%. Unfunded pricing has widened up to 80%, but a large component of these increases is due to the increased demand for and reliance on unfunded solutions.

According to Jeffrey Krohn, mortgage and structured credit leader at Guy Carpenter, unfunded issuance is three times of that prior to the pandemic. In contrast, the (re)insurance market provides more stable pricing over time, reflecting the underlying fundamentals of risk. As such, originators need to have relationships with (re)insurers to take advantage of the pool of capital when they need it most.

Andrew Feachem, md at Guy Carpenter, says: "The participation of (re)insurers has ensured that thicker tranched deals continue to be economic for the banks to issue. A key reason is that they aren't constrained by the usual performance return hurdles that funded investors have. The DNA of (re)insurers is long-term partnership at their core and this makes them strong partners to banks, as they are better able to weather short to medium-term volatility."

He adds: "The participation of (re) insurers is certainly not to the detriment of funded investors. We see that each class of investor is able to access the risk/reward profile they are seeking from the market."

In fact (re)insurers are also playing a role, behind the scenes, in facilitating banks that are looking to provide fund financing facilities. "Ultimately, the US credit risk transfer market indicates the direction of travel, where now the GSEs and mortgage insurers can freely choose whether to execute entirely via the capital markets or via the (re)insurance market," observes Feachem.

Since Arch MI participated in the first European unfunded CRT (Simba, with ING DiBa) in 2018, there have been around 20-30 transactions with insurance counterparties. "Insurers generally are not very active in the credit space: about 1% of the premium of insurance companies in Europe comes from credit risk," says Giuliano Giovannetti, co-founder of Granular Investments. "On the other hand, 85% of bank capital is held against credit risk. So, insurers can get a benefit as they diversify into other lines of business beyond their core areas, as long as they underwrite the risk properly."

Certain types of risks are naturally more geared towards insurance, such as mortgage insurance. But generally the more run-of-the-mill a risk is, the easier it is for insurers, which are still relatively new to the market. Insurers with bespoke competence in one area, such as aircraft finance or infrastructure, may be prepared to join with other investors in a deal.

Giovannetti says: "In general, the investment process for insurers is quite lengthy and thorough, especially for the first transaction, which makes them sometimes slower to begin with. There is a learning curve and it also requires a bit of patience from the bank. But it's an investment that

Giuliano Giovannetti, Granular Investments

pays off; once the insurer gets comfortable with the bank and its processes, they can provide a lot of capacity."

Seamus Fearon, Arch MI evp, CRT and European markets, anticipates some growth in the number of insurers participating in European CRTs, but not to the extent seen in the US market. "European SRT is a much more heterogeneous market across many countries," he says. "There are a lot of different originators and many different asset classes. That requires additional analytical and legal time and resources, which may not be worth it for an insurer who wants SRT to be a small part of what they do."

The wide variety of transactions available to insurers can be a bit overwhelming to new entrants; however, the benefits to issuers of new entrants are difficult to understate. With thoughtful quantitative approaches, intermediaries can facilitate wider participation and improve issuer economics.

Krohn further notes that with the expected reduction in GSE CRT volumes next year, (re)insurers will be focused on deploying their established expertise in associated asset classes, such as SRT.

or whether issuers can adhere to existing frameworks. Morphett notes: "The main tension when it comes to sustainable securitisation is whether the underlying reference pool must be green as per the EU Taxonomy, or whether the use of proceeds – meeting certain green standards – can qualify a securitisation as sustainable."

She adds: "The volume of ESG investments increasing will largely depend on where that regulatory conversation lands. My hope is that the market will continue to support green redeployment, as well as transactions that embed greening over time, through replenishment or a pricing incentive for certain ESG-aligned KPIs."

She cites as an example Newmarket's 2021 Project Boquerón transaction with Santander, which references a €1.6bn pool of renewable energy assets and champions ESG lending through three features, both at inception and during reinvestment.

Not only is the portfolio focused on ESG assets at issuance, coupon incentives also exist to replenish the portfolio with further ESG assets during the revolving period. Additionally, the trade includes coupon incentives for utilising the capital released to further grow Santander's lending to new ESG assets.

A pilot exercise on climate risk, published by the EBA in May 2021, estimated an average green asset ratio of just 7.9% for a sample of 29 EU banks. Against this backdrop, Morphett emphasises: "There isn't enough supply of assets to sustain a green SRT market, when we are exclusively looking at underlying reference portfolios."

CASE STUDY:
DATA AND PORTFOLIO OPTIMISATION

Mark Faulkner, co-founder, Credit Benchmark, investigates how Credit Consensus data can help support growth in SRT activity

Mark Faulkner

In times of flux, prudent risk management is of critical importance. After a stretch of relative calm in the world of credit risk, a stronger focus on risk management is crystallising across the capital markets, including in the business of significant risk transfer (SRT).

This change is being driven by a combination of distressing geopolitical and macroeconomic events. After the initial shock, the coordinated accommodative economic policy driven by central bankers in response to the global pandemic created conditions for a relatively 'benign' credit environment. These conditions have proven to be the lull before the storm.

The scale of the unprecedented action by central banks protected much of the global economy and companies from default. However, as liquidity and fiscal support are now inevitably being withdrawn, we find ourselves adjusting to a 'new normal'; positioned at the epicentre of a dramatic economic storm.

Rising inflation, interest rates and ongoing supply chain challenges are having a major impact upon all aspects of the economy and are inevitably concerning to investors. In this increasingly 'malign' environment, analytically and empirically grounded composure is an invaluable asset.

Over recent years, SRT transactions have grown in popularity as banks look to release and redeploy regulatory capital, with investors happy to take on the higher returns of bank-owned high-yield assets. Banking business models are increasingly factoring in the ability to originate and distribute risk to investors via strategic risk-sharing programmes. This growth is likely to continue, given current market conditions, and should be supported by appropriate risk-related data to ensure the sector can operate efficiently and at scale.

It is clear that investors are seeking a higher level of informational transparency than that currently available as standard. This is in response to the changing market conditions and to ensure that they invest in portfolios that reflect their particular risk/return profile.

This case study explores some themes around how data can optimise portfolio construction now and in the future. The recent Credit Benchmark whitepaper, 'Credit Consensus Ratings and Risk Sharing Portfolios', provides a more in-depth technical analysis.

Risk versus reward

"Not all portfolios are equal; it is important to know the underlying risk and get paid accordingly"
– an experienced SRT investor

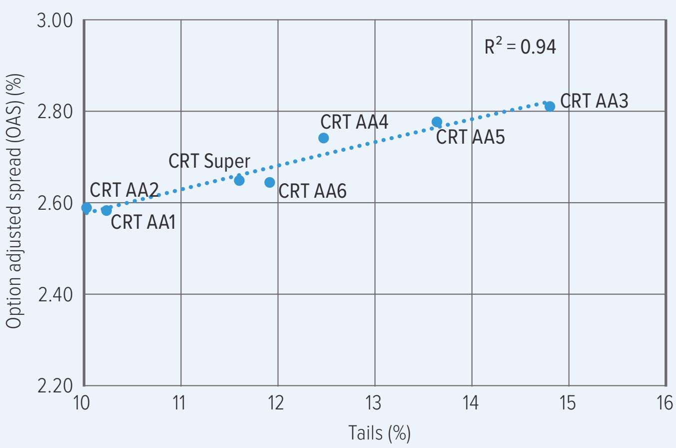
Risk is measured here by the proportion of exposures in the 'tail' of b- and c-rated credits – just one of a range of portfolio risk measures that can be used. Investors need at a minimum to cover credit risk, so the lowest acceptable return for each portfolio can be proxied by real world probabilities of default (PD). The upper pricing bound will be closer to market-implied PDs embedded in Option Adjusted Spreads (OAS). The latter also include a risk premium and will be more sensitive to short-term credit cycles.

Observations on the sample CRT portfolios *(Figures 1 and 2)*:

- In general, higher tail risk brings higher compensating return, especially when tail risk is compared with OAS.
- For some actual CRT portfolios plotted here, the lower pricing bound (measured by PD) does not compensate for higher tail risk; e.g., Portfolio AA3. So, if tail risk is a particular issue – such as during a period of rising defaults – then deal pricing based on average PD will probably not fully compensate for tail risk.

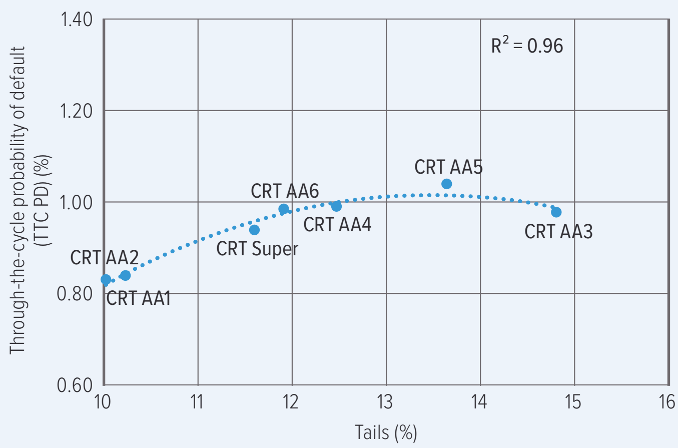
Investors in the world of SRT are a diverse group, ranging from sovereign wealth funds to hedge funds and all types of asset managers in between, and this diversity lends strength to the market. The ability to identify portfolios that meet these diverse needs and to monitor their changing risk profiles is essential to reassure investors, especially for new market entrants.

Figure 1: Option adjusted bond spreads (proxy for PIT) vs tail risks for 7 sample portfolios



Source: Credit Benchmark

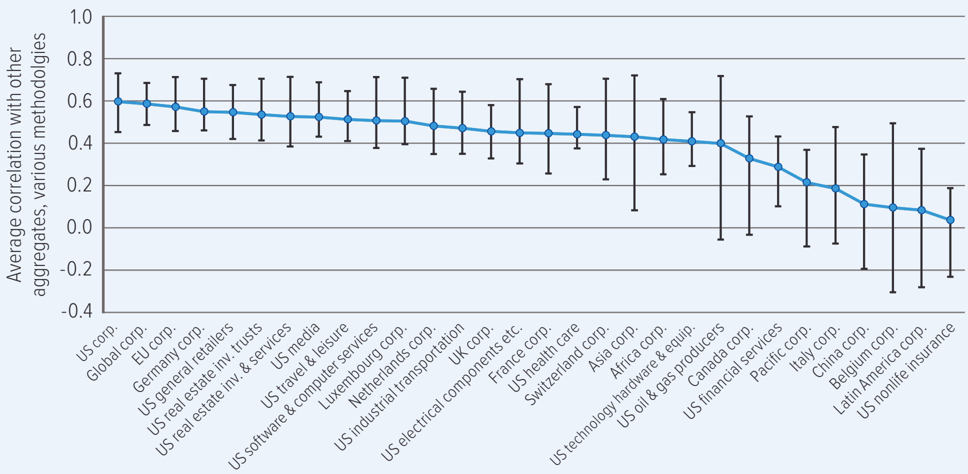
Figure 2: Through-the-cycle probability of default (TTC PD) vs tail risks for 7 sample portfolios



Source: Credit Benchmark

"As a new investor in the SRT sector, we need reassurance from issuers and elsewhere that we are making sound investments at these challenging times"
– a prospective sovereign wealth SRT investor

Figure 3: Most and least diversifying – 30 sector aggregates used for portfolio examples



Source: Credit Benchmark

Credit risk information is valuable at the initiation of a transaction and throughout its lifecycle, to support both portfolio construction and ongoing portfolio monitoring and surveillance. Other enhancements – such as the ability to receive automated alerts when portfolio risk changes – can only serve to improve risk management practices in the SRT business.

However, issuer-provided data is not always easy to come by in certain jurisdictions and in certain segments of the market. Where transparency is lacking, aggregated data at a sectoral or geographical level can supplement entity-level ratings. For both disclosed and undisclosed portfolios, the ability to complement issuer-provided information with a richer source of externally available data is likely to become standard market practice.

Portfolio diversification impacts risk and return

Depending on which assets you invest in, there is a big difference in how much diversification you are getting in a portfolio. Even within the context of mid- to large-cap corporate portfolios, true diversification can be difficult to measure and monitor.

Figure 3 shows the range of credit risk correlation estimates across a sample of 29 sector aggregates. In effect, this shows whether a particular sector will remain stable when other sectors are experiencing deterioration. Some sectors show very similar credit risk profiles in all market conditions; others may be independent or even negatively correlated.

There are many ways to estimate sector similarity – they all involve a correlation estimate, but these can be based on similarities in PD changes, in 'tails' (% of an asset class in the b and c credit categories over time) or on market risk measures, such as OAS. The error bars in the chart show the range of estimates using different measures of correlation – for some sectors, such as the 'catch-all' aggregate 'Global Corporates' (second from left), the range is very narrow – most measures give similar results. For others – such as 'Belgian Corporates' – the range is very large, while the average correlation measure is low. So Belgian corporates may look like a way of diversifying a portfolio, but there is a lot of uncertainty about their behaviour across the credit cycle.

Alternative sources of correlation estimates are patchy – CDS indices cover a limited range of names and many of them are illiquid; OAS are more widely available but restricted to traded bond assets subject to the short-term swings in market sentiment and credit/liquidity risk premiums. They also tend to be positive and high – close to a value of +1 (implying perfect correlation) – in all but the most unusual market conditions.

By contrast, Credit Consensus data provides a set of regular and consistent time series, including risk estimates for legal entities that are not publicly traded. They are also stable over short periods, while showing trends and turning points over longer time periods.

Correlation matrices may also be used in various portfolio risk calculations and re-estimated for different time periods to assess their stability. These are likely to be utilised more widely as credit becomes more volatile.

What kind of information will support and assist the growth of the SRT business?

"Our bank is eager to provide useful and necessary information to investors – but we are wary of the cost of meeting the continuous demands for more and more information. Such provision can be expensive and of questionable utility"
– a seasoned bank issuer

As the SRT market grows, additional credit intelligence can only be a good thing, benefiting banks and investors alike and helping to build and maintain confidence in the asset class. Recognising complementary sources of data that maintain necessary levels of confidentiality could ensure that risk sharing continues to function smoothly.

Diversity of portfolios and varying levels of regulatory-approved issuer disclosure implies a need in the industry for any available data to be contextualised, comparable and consistent. Standardisation or achievable industry-wide protocols could help, but establishing these presents a challenge – though one not beyond the wit of this innovative growing market, and with the potential for great benefits.

The provision of information from issuer to investor is not without cost to the former. To maintain the dynamism of the industry, it is important that this provision is not too onerous to banks, nor is it requested by investors for information's sake. Alternative sources of data could ease this informational burden between parties.

As the pace of change in global markets accelerates, transition matrices may be more widely adopted to project PD term structures and future default rates for SRT portfolios. Additionally, overlaying point-in-time (PIT) data upon through-the-cycle (TTC) data could help investors make better informed decisions that consider current and expected market conditions amid increased risk volatility.

"It is a capital mistake to theorise before one has data" *– Sherlock Holmes*

The widespread adoption of appropriate levels of data provision will ensure the continued future growth of this increasingly important market. These are challenging times and the need to avoid surprises is essential. A greater understanding of the risk/return profile of a portfolio from inception to maturity can only be a positive force for all SRT practitioners.

CHAPTER FOUR:
GROWING THE ISSUER BASE

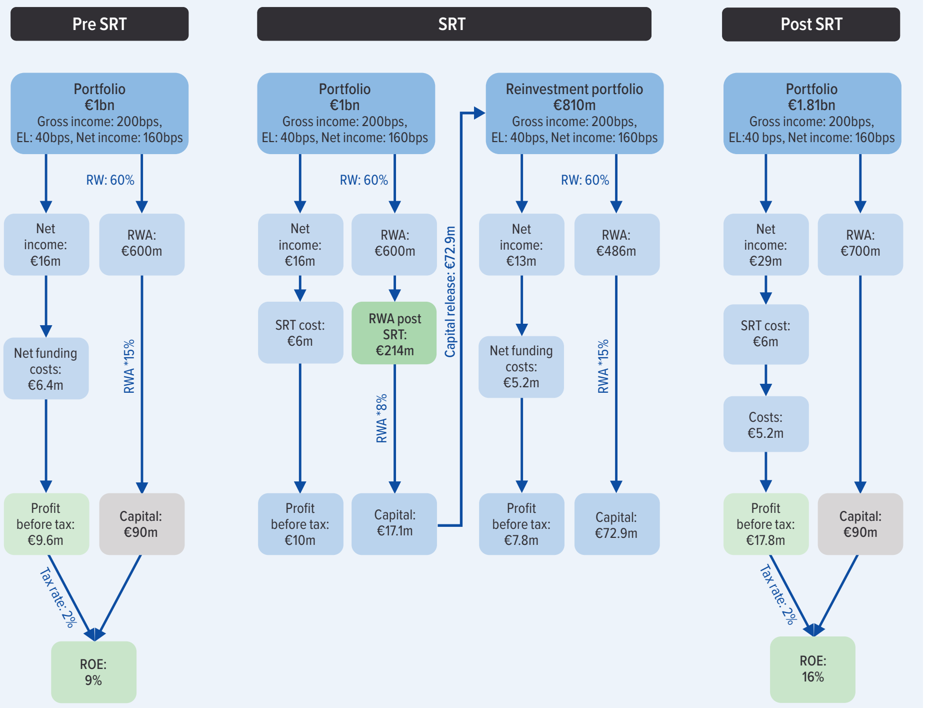
Given the utility of SRT technology, combined with clearer rules and guidelines now in place in many jurisdictions, there has been an expansion of first-time issuers entering the CRT space in the last couple of years.

Robert Bradbury, head of structured credit execution and advisory at Alvarez & Marsal, says: "As the technology becomes more mainstream, you will naturally get smaller participants looking at this. There's much wider awareness that this technology exists now, so I get calls from banks, from private equity funds, from investors, saying please explain this technology. There's much more public awareness and they are keen to understand how it works."

However, the initial set-up of an SRT programme can be a daunting proposition for a bank. In particular, smaller banks with smaller IT teams face capacity issues. Consequently, it's important for a bank to take a long-term view of the benefits of establishing an SRT programme as a strategic pillar in capital management planning.

Bradbury notes: "Many banks I've talked to said that the hurdle that stops them issuing is largely resourcing and operational, nothing to do with regulation or pricing."

SRT transaction process



Source: PCS

The hurdles required to get an STS designation are even higher, adds Seamus Fearon, Arch MI evp, CRT and European markets. "There are challenges for smaller lenders. It typically requires in-house structuring expertise at the lender, which is often a challenge for standardised lenders in terms of systems and data requirements."

Given that over 100 different criteria need to be satisfied in order to benefit from the label, he suggests that STS is a more suitable tool for the bigger IRB banks. "It's just more accessible for them."

The first transaction a bank does is a relatively lengthy process, with execution taking around two to three months and internal preparation taking another three months or so. "First, you need board-level approval. You have to explain to your board why this is the best way of using those assets and the most appropriate way of handling the risk mitigation," says Gareth Old, partner at Clifford Chance in New York.

He adds: "You then need to make sure that you have the right operational framework in place internally to identify the portfolio, to manage the reporting and make sure that you are monitoring credit events and your credit position."

Then there's external scrutiny. Old says: "The regulators are intensely focused on making sure that the banks genuinely get the value of the credit protection that they are buying. They will be looking very carefully at the bank systems to make sure that the portfolio is a good portfolio."

Given the resourcing and effort to establish an SRT programme, issuer motivations for undertaking an SRT transaction can extend to beyond achieving regulatory capital relief. For example, banks also enter into CRTs for the purposes of managing economic capital and concentration limits.

Andrew Feachem, md at Guy Carpenter, confirms: "In general, banks will try to capture a range of additional benefits beyond regulatory capital relief – including reducing IFRS 9 accounting volatility, managing concentration risks, freeing up credit lines and reducing MREL requirements. Furthermore, we expect to see certain types of non-bank issuers utilising SRT technology to manage credit risks, where the motivation would clearly not be for regulatory capital relief."

Gareth Old, Clifford Chance

New jurisdictions

As more first-time issuers have entered the CRT market, new jurisdictions have also opened up – including Poland and Greece, where a number of national champion banks have executed SRT transactions, with both supranational and private investor participation. For example, Project K2 – finalised by mBank and PGGM in March – marked the first Polish significant risk transfer trade sold to a private investor and the first STS synthetic securitisation in the country. The transaction references a PLN9bn portfolio of large, small and medium-sized corporate loans.

Another new jurisdiction to arrive on the CRT scene this year was Hong Kong. Standard Chartered became the first bank to achieve capital relief at a local level in the jurisdiction with its US$1.5bn Sumeru IV transaction. PGGM and Alecta invested in the deal, which references a global portfolio of corporate loans.

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Issuance from Asian jurisdictions is expected to grow, but at a slower pace than that seen in Europe. Feachem says: "Currently there is only consistent activity, from a regulatory perspective, from Japan. However, transactions are infrequent relative to the size of the Japanese mega banks' balance sheets and part of that is down to a perception of the high issuance costs relative to more traditional forms of balance sheet management, as well as competing regulatory/liquidity priorities in recent years."

He adds: "We do expect other jurisdictions to come on-line, although perhaps at a slower pace than the regional and local banks would like. In some cases, that is because of a historic negative view of synthetic tranched protection by the regulator – possibly stemming from the lead-up to the global financial crisis – and in other cases, because of limited regulatory experience in supervising banks with a more active approach to credit portfolio management. What is needed here is patient advocacy with the regulatory bodies."

US potential

The largest potential impact on CRT supply could nevertheless emerge from the US, given the size of US bank balance sheets and the high quality/low yielding nature of the exposures. "The assets align strongly with the CRT market," suggests Kaelynn Abrell, partner and portfolio manager at ArrowMark Partners.

> "AT LEAST FIVE REGIONAL BANKS ARE LOOKING QUITE CAREFULLY AT THE PRODUCT, BUT VERY CRITICALLY"

> "WE DO EXPECT OTHER JURISDICTIONS TO COME ON-LINE, ALTHOUGH PERHAPS AT A SLOWER PACE THAN THE REGIONAL AND LOCAL BANKS WOULD LIKE"

However, over the last 18 months, there has been a pause in issuance among some of the larger US banks. Old indicates that the reasons for that remain "somewhat obscure", but are likely to be around discussions with their regulators.

The jurisdiction faces a number of constraints, including the FDIC's broad ability to repudiate any obligation of a bank if it is appointed as a receiver or conservator. This means that any portfolio transaction has to satisfy the securitisation safe harbour or the participation safe harbour – both of which are largely predicated around a true sale context – in order to offer investors assurance that the FDIC will not exercise its repudiation rights.

Fearon believes that there is unlikely to be broad adoption of private CRT in the US, absent regulatory changes. "The regulators need to keep it simple," he warns. "We have seen some private deals from a handful of players, such as JPMorgan, but the timeline and the regulatory cost burden to get transactions approved is particularly onerous. The banks would need more confidence that they can get their deals approved before taking them through various different regulatory bodies."

Tim Armstrong, md at Guy Carpenter, agrees that the regulatory picture for private CRT in the US remains unclear, as there is no clear recipe for regulatory capital credit. "It's a complex regulatory environment with multiple regulators involved and the shadow of GFC failings still hangs heavy. From an unfunded perspective, while technically capital credit is allowed, the current regulations severely limit its applications. However, with recent regulatory developments, there is optimism for additional clarity."

According to Old, the US credit portfolio management market is very different from other jurisdictions and so private CRT should be viewed within that context. "The cash alternatives to CRT transactions are much deeper and more prevalent than they are in most of Europe. So, the motivation for doing a private CRT transaction – which is quite a complicated thing to do – is rather different," he explains.

Regional banks

A few regional banks have nonetheless entered the US CRT market, the first being Texas Capital Bank in March 2021 with a mortgage warehouse deal. Western Alliance Bank has since executed three transactions, referencing mortgages and capital call facilities.

More recently, in September, California-based Pacific Western Bank entered the market with a four-tranche CLN referencing residential mortgage assets. Unusually, the deal was a one-off, not the beginning of a larger programme. PWB is not a mortgage originator or warehouse lender, but acquired residential mortgages from other lenders because the assets fit its risk/return requirements.

Old indicates that there are a couple more regional bank deals in the pipeline for late 2022 or early 2023. "I can think of at least five regional banks that are looking quite carefully at the product, but very critically. There's a very significant investment that is required before you start putting together CRT transactions. You've got to have confidence that not only is there a case for the current portfolio, but also that you will come back to the market again."

In terms of reference pools, one area of focus is relatively high-quality assets that have a good credit story behind them and are available in some depth. "So far, there are three different asset classes, but discussions are going on around more or less anything the bank has on its books in large volumes – for instance, auto loan transactions or more consumer loans," Old notes. "There has been discussion about doing synthetic credit card transactions. We've spent a lot of time figuring out how they would work, but it's a stretch to figure out whether that's better for the bank than the cash transaction."

Armstrong agrees: "We have seen a sharp increase in inquiries from a variety of risk holders who are looking to CRT to diversify sources of capital and manage a variety of regulatory objectives across an increasing range of asset classes."

The most recent Western Alliance deal was done on a principal protected basis, marking a first for the market. Old suggests that it will be interesting to see whether that feature is repeated and develops into being essentially a mandatory feature of any regional bank-issued CRT programme, or whether it's something done through a pricing uplift.

Looking ahead, he is optimistic about the prospects for the US private CRT market. "There are a lot of economic headwinds, but capital remains king and we are confident that CRT is going to be able to hold its own against competitors. Because it is very directly focused on maintaining the deep relationships between the banks and their customers and asset bases, while also developing the risk transfer capabilities shown in the European CRT markets for the last decade."

Optimizing CRT Portfolios: Risk vs Reward

Credit Benchmark

The risk sharing market is growing. Insurance companies and specialised asset managers are investing in Capital Relief Trades, selectively underwriting some of the credit risk in bank loan portfolios. For investors, these trades can offer higher yields than conventional bonds with risk diversified across countries and sectors. For banks, they provide a mechanism for redeploying capital in other areas without disruption to the original borrower.

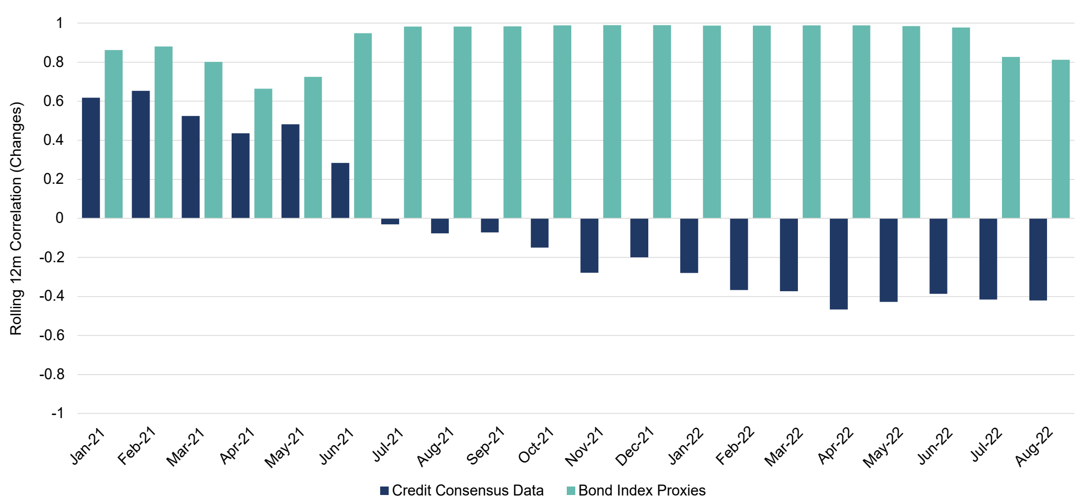
These trades may involve direct or tranched exposures to transparent lists of obligors, but in many cases only the general characteristics of the underlying portfolio – geography and industry - are disclosed to the investor; and many of the underlying borrowers may not have CRA ratings.

Credit Consensus data, sourced from global banks, is ideal for assessing and managing the risks in these trades. Credit Consensus data covers more than 30,000 corporate and financial issuers – many of them otherwise unrated – and these individual risk estimates can also be grouped into aggregates, tracking default risk across more than 800 country and sector combinations.

Accurate measures of default correlations can be critical to pricing these trades. Credit Consensus data, updated twice monthly, provides timely alerts when correlations change. Until now, banks and investors have had to rely on market data – such as Bond and CDS indices – to measure correlations. But these can be volatile, and distorted by general market movements or shifts in overall risk appetite. Credit Consensus data is based on real world estimates of expected default rates; so they are more stable in the short term, but also give clearer indications of turning points in correlations.

The chart below shows a comparison between these two measures of correlation, between default risk in the US and European Health Care industries.

Rolling 12-month Correlation, US vs Europe Healthcare, Consensus vs Bond Indices



The correlations are rolling 12 month. The green bars show the correlation between changes in the two bond indices – these have risen from about +0.85 in early 2021 to close to +1 from mid 2021 until June 2022. But the Credit Consensus data, which shows the correlation between changes in real-world default risk estimates, have moved from +0.6 to -0.4 over the same period. This shows that market sentiment and liquidity effects can obscure the underlying relationship between credit risks in two different regions. Similar patterns can be seen across sectors in single countries.

Aggregates provide credit risk managers with the tools to assess portfolio risk credit structure across different risk categories, correlations between exposures and marginal contribution to risk calculations. For banks structuring CRT trades and for the asset managers investing in them, Credit Consensus data provides a new, frequently updated and comprehensive set of indices for managing credit risk trade-offs and optimising portfolio risk and return.

Data that works for you:

Credit Benchmark data is available via our Web App, Excel add-in, API, flat-file download, and third-party channels including Bloomberg.

Contact us to learn more and get a complimentary credit report on your portfolio.

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CHAPTER FIVE:
US MORTGAGE RISK TRANSFER

One of the bright spots of the US agency credit risk transfer market this year has been increased allocations to the reinsurance markets via the ACIS and CIRT programmes. Inflation and the resulting widening of credit spreads has dislocated capital market execution via the CAS and STACR programmes and made that option less efficient relative to reinsurance.

> “REINSURERS WILL ABSORB THREE TIMES THE LIMIT OF LIABILITY IN 2022 THAN THEY DID PRIOR TO THE PANDEMIC”

Capital market spreads spiked to as high as 200% of 2021 levels amid the volatile market conditions, while reinsurance pricing is up by 60%-80% in the same time period. “Reinsurance pricing would likely not have widened as much as it did, had the capital markets not dislocated, as many view mortgage credit risk to be up in the area of only 10%-20%,” explains Tim Armstrong, md at Guy Carpenter.

Unlike capital market participants, reinsurers don’t react to market pricing changes in the secondary market, margin calls – for those investors using leverage – or liquidity premiums. “As a result, reinsurers will absorb three times the limit of liability in 2022 than they did prior to the pandemic,” he adds.

Before the pandemic, agency CRT issuance comprised approximately 75% capital markets and 25% reinsurance markets. Armstrong estimates that this year, reinsurance execution may account for closer to 50% of agency CRT issuance.

The reinsurance platform of Freddie Mac, for one, has run 30%-40% of its total CRT placement this year. Mike Reynolds, vp, single-family CRT programme at the GSE, says: “It has been really well received. We’ve had a number of new participants in that area. We’ve seen better price stability out of our reinsurance markets: capital markets executions have been more volatile.”

Freddie Mac’s search for efficiency has proved successful in reducing reinsurance transaction times. Reynolds notes that typically securitisation transactions are executed about four or five months after the MBS execution.

“This year, with the ACIS programme, we’ve actually started to execute transactions at either the same time or even one month forward: we have a hedge for our risk,” he adds.

He suggests that reinsurers have “gotten comfortable with pricing to a proxy pool”.

Indeed, as demand has shifted from the capital markets to reinsurance markets, the flexibility of reinsurance structures has continued to develop. “Several US mortgage insurers have done forward deals on future production, with innovative approaches to matching the detachments to the capital required through time. These approaches have lowered the cost of capital, as they are highly efficient,” confirms Armstrong.

Seamus Fearon, Arch MI evp, CRT and European markets, agrees that forward agency CRT is a natural market for reinsurance because it can provide capacity on a forward basis, which the capital markets struggle with.

Another area of opportunity that he points to is specific pools of cash-out refinance mortgages. These are typically in the 50%-60% LTV bracket, which falls outside the target CRT pool of risk, from 60% LTV upwards. But cash-outs attract quite a high capital charge under the capital rule.

Tim Armstrong, Guy Carpenter

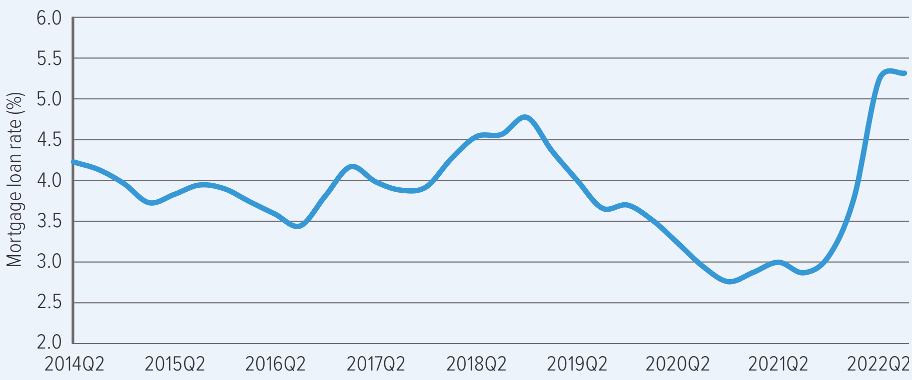
“So, it made sense for the enterprises to try and lay off capital there,” Fearon explains. “We’d seen quite a spike in the number of cash-outs because borrowers have taken advantage of the rapid home price appreciation to take equity out of their homes at historically low interest rates. From a risk perspective, they were lower risk than historically a cash-out borrower would be, so it was a very good trade for the enterprises.”

Record volumes

Overall, Freddie Mac issued unprecedented CRT volumes of nearly US$15bn in the first half of 2022, protecting US$358bn UPB of single-family mortgages. “The volume is primarily driven by our record-breaking acquisitions. We now have nearly a US$3trn book of business. The number one driver is our record-breaking MBS issuance for 2021,” observes Reynolds.

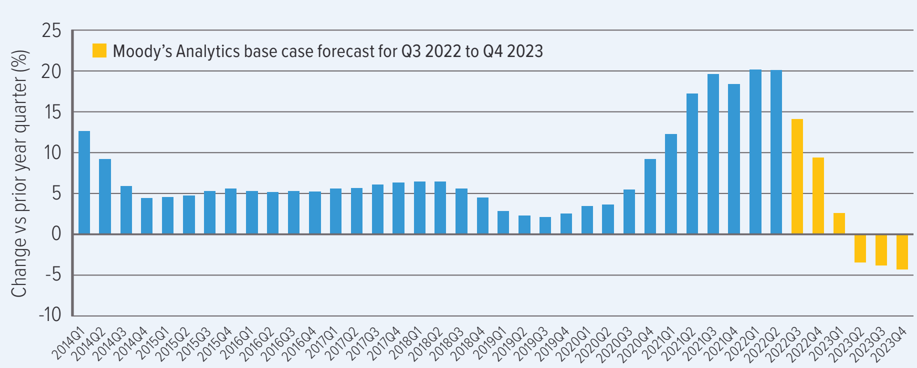
While he describes the ACIS programme as “a tremendous success story” in a rising rate environment, with significant disruption to fixed income markets, he also notes that the floating-rate STACR programme “offers some great protection for investors, given where we are with inflation.”

Conforming mortgage loan rates approaching 6%, highest levels since 2008



Source: Moody’s

Growth in single-family home prices boosts borrowers' equity and protects PMI sector



Source: Moody's

However, issuance volumes are now declining. "The first half of this year was the largest; the second half is going to be smaller [and] I expect the first half of 2023 to be even smaller still. The Fed will continue to raise interest rates, so I think volumes overall will continue to decrease," Reynolds predicts.

The best buying opportunities were earlier this year, he adds. "On both the reinsurance and capital markets, the total volumes that we'll be bringing is going to be material and interesting, but it's not going to be anything like what we saw in the first half of this year."

Nevertheless, Freddie Mac intends to keep increasing the efficiency of its STACR programme. Reynolds says the GSE is seeking to reduce the time it takes to execute STACR transactions.

He also points to Freddie's tender offers to repurchase outstanding STACR bonds as another area of interest. The first tender offer was launched in September 2021 and the GSE has undertaken one in each quarter of 2022.

"Investors have appreciated the opportunity to be able to sell in bulk. We have a very strong secondary market and August was a very busy month," Reynolds observes.

Mike Reynolds, Freddie Mac

> "AS THE US MACRO MARKET CHANGES IN 2023, TO THE EXTENT THAT A RECESSION DOES OCCUR, WHAT KIND OF IMPACT WILL THAT HAVE ON DELINQUENCIES?"

ERCF weaknesses

Meanwhile, Fannie Mae is still catching up after its pause from the CRT market following the initial draft of the Enterprise Regulatory Capital Framework (ERCF) capital requirements. The ERCF has been tweaked since director Sandra Thompson ushered in a change of guard at the FHFA, but many market participants believe the GSE capital rules should be reviewed further.

Some see the latest changes made to the ERCF as an improvement over the prior version, but the haircuts for CRT remain onerous and unlike those seen in other capital regimes. Others question the degree of CRT issuance, if it were not for the binding constraints of the FHFA scorecard. The haircuts remain a significant disincentive, distorting the risk reduction benefits of the transactions as they disconnect the capital requirement from risk, particularly over time. These weaknesses undermine the real economic value provided by loss-absorbing CRT and reduce the efficiencies of and incentives to use CRT.

Looking ahead, an affordability CRT product covering Fannie or Freddie's affordable mortgage schemes for low- to moderate-income borrowers could be on the cards. "There will be increased ESG focus, as the FHFA encourages CRT approaches that benefit underserved borrowers," Armstrong predicts. "The GSE programmes that support these borrowers could become CRT targets, or other loan characteristics may be targeted. We could even see an ESG scoring system introduced to CRT deals to help draw certain investors."

Delinquencies will also be a focus. "As the US macro market changes in 2023, to the extent that a recession does occur, what kind of impact will that have on delinquencies? That's what the markets will be focusing on," Reynolds suggests.

Nevertheless, he is optimistic about the future, pointing to sound underwriting and effective loss mitigation. "Every situation is different and past does not predict future performance. But you can see what we did coming out of Covid, with millions of properties in forbearance, and we've come out of that with very little losses. Most of those loans are back to performing."

THE RETURN OF MILNS?

Mortgage insurance-linked note (MILN) issuance all but disappeared in the volatile market conditions of 2022, falling from 13 deals in 2021 to just two by the time of writing. On the reinsurance side, eight transactions were closed in 2021; in 2022, Guy Carpenter estimates 17-18 reinsurance transactions will be executed in the reinsurance market.

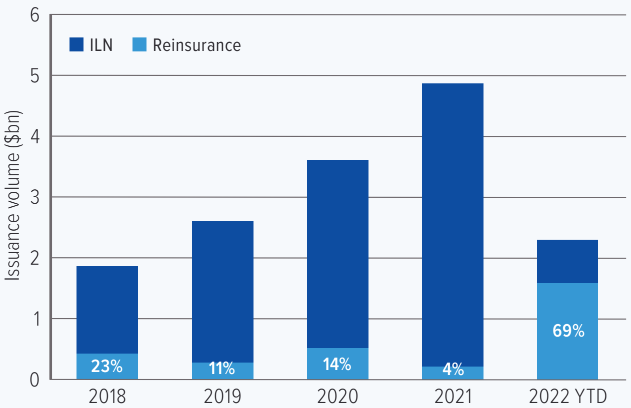
"MILN credit spreads remain historically wide, making these issuances less attractive. We don't see meaningful new ILN issuance or innovation, given the current cost of capital available," says Jeffrey Krohn, md and mortgage and structured credit segment leader at Guy Carpenter.

More attractive pricing is available in the reinsurance markets. In addition to their ongoing deployment of quota share reinsurance, mortgage insurers have increased their use of excess of loss reinsurance as a replacement for MILNs. The growing consensus is that the most durable capital strategy is to use quota share reinsurance, complemented by both excess of loss reinsurance and MILNs.

Seamus Fearon, Arch MI evp, CRT and European markets, anticipates that more insurers will return to the MILN market in the autumn and winter, and hopes to see some spread tightening. "For us, it's important that we continue to keep those markets active, even if sometimes we have to pay a higher cost than we would like. We are actively working on one deal at the moment and hope to close that by the end of September."

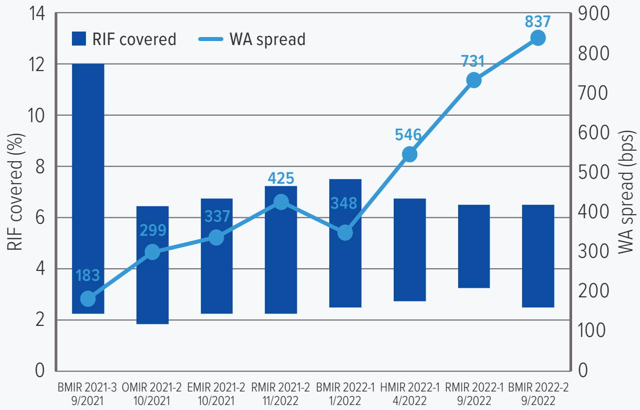
Jeffrey Krohn, Guy Carpenter

US mortgage insurer executions ILN vs reinsurance*



Source: Guy Carpenter, MI Company Filings, Bloomberg
* Includes publicly available data only through September 2022

US mortgage insurer ILN activity



Source: Guy Carpenter, Bloomberg, Moody's, DBRS Morningstar
Note: WA spreads consider tranche WALs an assume 10% CPR until early redemption

CHAPTER SIX:
PROSPECTS FOR THE FUTURE

Regulatory change has been a key driver of growth in the CRT market to date, but it is now expected to take a back seat. All eyes are on how the current macro themes will play out and the implementation of Basel 4.

"The outlook for the CRT market heading into 2023 and 2024 will most likely be dominated more by changes in credit conditions under the macro themes that are currently evolving. The regulatory aspect will probably be secondary, as the vast majority of regulatory items for the coming years are now well understood by market participants," suggests Andrew Feachem, md at Guy Carpenter.

Raising capital in the equity market would be very expensive for banks amid the current volatile market conditions. As such, from a relative cost standpoint, SRT appears to be very attractive.

"Banks are once again faced with headwinds in relation to their earnings and capital ratios. They need to more actively manage their capital, as the environment remains very uncertain," notes Kaikobad Kakalia, chief investment officer at Chorus Capital Management.

He adds: "For banks that have not issued SRT transactions previously, this is a wake-up call. This is exactly what they should be doing to manage RWA volatility at an efficient cost of capital."

One major regulatory item remaining is the implementation of the new Basel 4 regime, which was originally intended to begin on 1 January 2022, with a phasing-in of the output floor to 1 January 2027. In March 2020, in response to the pandemic, the Basel Committee deferred the implementation timeline by 12 months to 1 January 2023.

The capital treatment of securitisations under the standardised approach are seen as quite punitive. Olivier Renault, md, head of risk sharing strategy at Pemberton Asset Management, describes the Basel 4 output floor as his "bugbear".

"The Basel 4 floor means that a bank calculating capital under its own internal model cannot have an amount of capital which is less than 72.5% of the capital under standardised. The standardised methodology for securitisation is 72.5% of a very big number because the risk weights on securitisation under the standardised approach are very high. That makes these transactions far less efficient," he comments.

Kaikobad Kakalia, Chorus Capital Management

> "FOR BANKS THAT HAVE NOT ISSUED SRT TRANSACTIONS PREVIOUSLY, THIS IS A WAKE-UP CALL. THIS IS EXACTLY WHAT THEY SHOULD BE DOING TO MANAGE RWA VOLATILITY AT AN EFFICIENT COST OF CAPITAL"

Feachem agrees, suggesting that this will again lead to thicker tranching requirements. He comments: "As Basel 4 beds in, and with the continued maturation of the SRT market, we again see an important role for (re)insurers to play here combined with participation from real money funds."

New jurisdictions

While the impact of Basel 4 is yet to be fully understood, ultimately it is expected to increase the capital need across bank portfolios, resulting in greater incentives to issue CRTs. At a high level, Seamus Fearon, Arch MI evp, CRT and European markets, says he is bullish about the growth of SRT in Europe. He expects existing issuers to carry out more transactions in greater volumes, as well as first-time issuances across new jurisdictions and banking groups, as banks seek to reduce their overall cost of capital.

"As an SRT investor, I think that the Basel 4 regime is likely to be a good thing as bank capital needs increase. It will be good for the overall health of the banking sector to diversify and reduce systemic risk through SRT. As an investor, if there are more deals in the market, it increases the choices you have and puts upward pressure on pricing," Fearon observes.

He continues: "From a country perspective, you could probably see more transactions in the peripheral regions of Europe – the Baltics, Scandinavia and Eastern Europe. We'll also see more where there has been strong issuance; predominantly Western European countries."

This year has already seen the first-ever synthetic securitisation referencing buy now, pay later exposures from Nordic lender Klarna. And a housing community loan STS deal issued by Polish lender Getin Noble Bank broke new ground in a number of ways: one of a few standardised bank transactions sold to private investors, it was denominated in Polish zloty and featured an ESG component, given that the assets are linked to heating efficiency upgrades.

Another standout deal of the year was BNP Paribas' Resonance Seven from July, which referenced a €13bn global corporate portfolio, representing the largest-ever CRT issued. The pricing of the seven-year €663m mezzanine tranche was described as "phenomenally tight".

Overall, in 2022, SRT issuance continued apace – despite unfavourable conditions in the broader securitisation market – largely due to the ability to customise transactions. Issuers and investors have adapted their approach to executing CRTs to reflect volatile market conditions, Fearon notes, by excluding certain sectors and industries. Investors are also able to negotiate more in terms of pool composition and concentration.

Feachem cites parallels with 2020 in how issuers and investors are responding to the current challenging environment. "Depending on the nature of the underlying portfolio, banks will be flagging loans or sectors that are more

Olivier Renault, Pemberton Asset Management

> "WHILE PRIMARY AND SECONDARY PRICING OF SRTS HAS BEEN LESS VOLATILE THAN, FOR EXAMPLE, CLOS, WE HAVE SEEN LEVELS WIDEN IN A MORE SUSTAINED WAY THAN DURING COVID"

impacted by the macroeconomic and geopolitical backdrop, with investors seeking to reduce single name and industry concentrations to those impacted exposures within the SRT."

He adds: "We have seen risk-takers seeking shorter replenishment periods and more conservative tranching, again in line with 2020. However, while primary and secondary pricing of SRTs has been less volatile than, for example, CLOs, we have seen levels widen in a more sustained way than during Covid."

Looking ahead, ArrowMark Partners partner and portfolio manager Kaelyn Abrell is optimistic about the market's prospects. "Overall, the current market is offering a wider variety of transactions, which translates to increased opportunities for us. The ability for banks to issue transactions with differing characteristics also contributes to their ability to achieve various objectives on a greater variety of assets. Investors need to tailor their diligence appropriately, but we believe a wider universe of options is a positive for the broader market."