

Capital relief trades: entering new territory

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New ground

CRTs – in which banks transfer credit risk to non-bank investors have become better established and more widely used. New issuance jurisdictions and greater variety of reference assets, issuers and investors have brought the market into new territory, but the regulatory environment remains challenging and there are concerns that growth could stall. This SCI research report* provides an overview of how CRTs are used and the benefits they bring, as well as examining the progress that the market has experienced in recent years and the steps required for its growth to continue.

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Executive summary

Banks use capital relief trades (CRTs) to transfer the risk of a reference pool of credit exposures to non-bank investors. The name is sometimes contentious, but the purpose is not: transactions release regulatory capital by reducing the risk weight of a bank's assets, decreasing the denominator for Core Tier 1 ratios.

In return, investors gain exposure to diversified bank credits and receive a relatively high coupon. Investors work closely with CRT originators to create a risk sharing partnership and trades are typically very highly negotiated to ensure maximum benefit to each party.

The UK and continental Europe – predominantly Germany and Switzerland – account for much of the market's issuance, but other jurisdictions are growing in importance. There are some notable differences in how deals are done in different jurisdictions and how different regulators approach transactions.

Market participants estimate around €30bn of CRT tranches have been placed since the crisis, referencing portfolios of anything up to 12 times that figure. Last year there were "maybe 20-25" European deals and the pipeline of new deals continues to grow, with 11 CRTs slated for 4Q18.

As issuance has increased, the use of deals has evolved by moving away from simple risk weight reductions. That has caused changes in the kinds of risk being transferred, with portfolio types and issuance jurisdictions both widening.

The recent Room2Run CRT from the African Development Bank underlines the use of these deals for more than simply commercial banks de-risking. Other supranational banks are also understood to be examining the space and could play a significant role in taking the market to another level of activity.

That transaction was backed by a pan-African portfolio of loans to infrastructure projects and financial institutions, proving that the market is about far more than European corporate loan risk transfer. It also attracted the European Commission as a backer, demonstrating how the investor base can continue to grow and develop. Italy and Spain are both opening up as European jurisdictions, while many market participants remain enthusiastic about the potential for issuance from the US. Many CRT investors are based in the US, but American banks have not issued CRTs domestically.

CDS has long been used in the wider market for hedging risk and is frequently used in CRTs as well. CRTs can also use financial guarantees of embed risk transfer in a CLN, and the market appears to be moving away from CDS in favour of financial guarantees, which avoid the P&L volatility and skew associated with the former. Bringing in more pension money would swell the pool of investor capital, bringing the long-term capital and patience required to invest though cycles.

Although pension funds are able to invest directly, it may be easier to bring them to the table by first educating the specialist consultants with which these funds frequently work to identify and execute investment opportunities. Greater involvement in the market by pension funds would not only grow the investor base directly, it could also grow the market indirectly by increasing regulators' comfort with the sector.

"CRTs work best when transferring risk on portfolios which carry higher regulatory risk weights, and the changes anticipated as part of Basel 4 will affect risk weights significantly"

CRTs are also increasingly being done as club deals rather than widely syndicated ones brought only by the largest issuers. This change has been driven by the increased use of disclosed portfolios and more specialised products.

As jurisdictions and structures have evolved, so too has the range of reference assets. Corporate and SME loans are still common, but there is greater variety now than there used to be.

The coming years are expected to bring even greater variety as regulatory changes make the likes of auto loan CRTs possible. CRTs work best when transferring risk on portfolios which carry higher regulatory risk weights, and the changes anticipated as part of Basel 4 will affect risk weights significantly.

That greater product variety may be one way of broadening the investor base, although it is already growing. The market remains centred around a core group of "15-20 dedicated CRT investors", many of which are hedge funds.

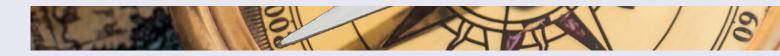
Among the largest of the market's investors is Dutch pension fund PGGM.

For all of the progress the market has made and continues to make, a more accommodating regulatory framework is consistently identified as the change which would have the greatest effect on the growth of the market.

Banks are already working to meet Basel 3 requirements which come fully into force in 1Q19, while Basel 4 also looms large on the horizon, although implementation is scheduled for 2027. The CRT space is defined by its regulatory environment to an extent which is simply not the case in most other markets.

Regulators are currently looking very closely at whether regulatory capital relief is genuinely commensurate with risk transfer. They have also expressed concerns about the use of excess spread.

The market's concern, however, is that the regulatory burden is already too high. Regulators have perhaps been slow to recognise the strides forward that the CRT market has made.





Chapter one: An introduction to CRTs

What are CRTs?

Capital relief trades (CRTs) are synthetic securitisations originated by banks to transfer the risk of a reference pool of credit exposures to non-bank investors. As European banks remain under significant pressure to improve their capital ratios, CRTs provide a solution which avoids having to sell the assets themselves.

Investors receive a coupon linked to the bank's cost of capital in return for underwriting losses on CRT portfolios. Those portfolios can consist of a variety of asset types, but banks get most benefit from transferring risk on portfolios which carry higher regulatory risk weights.

Investors are able to gain exposure to diversified bank credits. The transactions often reference SME loans, providing an attractive way for investors to access what can be an elusive credit.

Investors also receive a relatively high coupon and are able to work closely with the issuing bank to ensure that the transaction is tailored to their requirements. Deals are sold to single investors or to small groups of investors, both forging and requiring strong relationships.

"For a portfolio manager issuing one of these deals, the vital point is that they are not doing them for the sake of doing a synthetic securitisation, they are specifically solving a problem in their portfolio. Typically this goal will be freeing up regulatory capital," says Som-lok Leung, executive director, IACPM.

He continues: "Synthetics are particularly effective when you cannot disclose the borrowers behind the assets, which is the case in several jurisdictions. They are also effective when the assets are illiquid and cannot be sold or transferred through other mechanisms. You also need a supportive regulator who understands how these work and will accept issuers doing them."

Market history

CRTs are a form of synthetic securitisation, which is a broad market with a mixed history, but remain true to the original spirit of synthetic securitisation by focusing on capital management and hedging risk. CRTs take the focus on exposure management and add risk sharing between banks and investors who will sell protection.

CDS has long been used to hedge and CRTs are firmly in the risk management family. While many tools are available for managing risk, CRTs are the most evolved response to the lessons of the past.

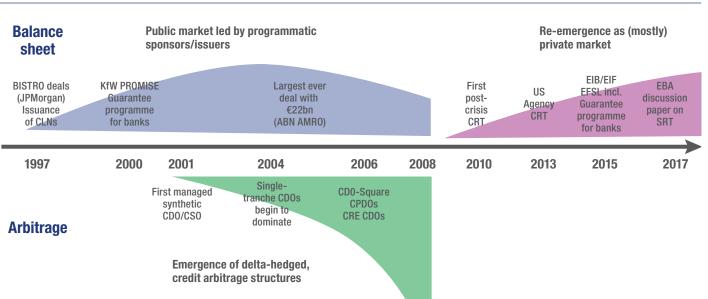
"These transactions have been around for a long time. In the early 2000s, CRT existed but was used principally to release



P&L in partially syndicated synthetic capital structures," says David Moffitt, head of tactical investment opportunities, LibreMax Capital.

The trade then typically referenced senior portions of portfolios. As different risks were created, over time the mezz and equity exposures needed hedging as well. The high cost of capital after the crisis made optimising capital a central consideration.

"One of the first tools for achieving these goals was hedging with CDS.



Source: Integer Advisors

Exhibit 1: Key synthetic securitisation milestones



These trades serve to manage risk and that is the family that these transactions belong to. There is a broad spectrum of tools available for that and synthetic securitisations are the latest step in the evolution of that," says Leung.

He continues: "The synthetic securitisations we have today are very different to the arbitrage synthetics which were rightly pilloried in the financial crisis. Those were often egregious deals that looked to take advantage of situations or transactors who were not as sophisticated as they should have been, and our market is still living with the fallout from that."

A growing market

The CRT market is concentrated in the UK and continental Europe, but there are significant differences between the jurisdictions. Deals in the UK are done according to a fairly standardised blueprint and are thus rather straightforward, albeit expensive. CRTs done in continental Europe typically have additional rules to comply with.

"Our deals in Europe have to be selffinancing. We could not issue transactions the way they are done in the UK," says Matthias Korn, head of financial solutions, Caplantic Alternative Assets.

He continues: "The UK CRT market is more active than continental Europe. In Europe there has to be a clear need to do a transaction, which is often to increase core capital ratios."

Banks which need capital will find a way to do these trades regardless of the regulatory regime, which has admittedly become less efficient. In order to improve core capital a trade has to be large enough to make a real difference.

As a private and secretive market, objectively assessing its size – and which

Exhibit 3: Synthetic balance sheet securitisations - then and now

	First generation (1997-2002)	Current generation (2013 -)
Market	Public	Private or bilateral
Assets	Corporates mostly	Corporates mostly
Banks	Large to mid-tier	Large, SIFI mostly
Regulatory	Jurisdiction-specific	Converging to standardised
Structure	Full synthetic (senior + junior)	Mezz/ junior only
Investors	Broad, ABS mainly	Narrow, alternative mainly
Govt Programs	National (eg KfW)	Europe-wide via supras

Source: Integer Advisors

trades are making that real difference – is notoriously difficult. SCI data shows around €4bn of deal flow in each of the last few years. Market participants estimate around €30bn of CRT tranches have been placed since the crisis, referencing portfolios of anything up to 12 times that figure. towards a better risk/return profile through more targeted credit origination and more dynamic management of performing and non-performing credit portfolios.

SCI's CRT database shows the strong growth of the market. From less than a dozen deals between 2009 and 2011,

"Our deals in Europe have to be selffinancing. We could not issue transactions the way they are done in the UK"

"All CRT transactions are treated as private deals. Having said that, it seems to us that the pipeline is still increasing at EU level according to the new and heavy regulatory framework," says Biagio Giacalone, head of active credit portfolio steering, Intesa Sanpaolo.

Giacalone's role leading the active credit portfolio steering unit at Intesa Sanpaolo is part of a dedicated push under the bank's 2018-2021 business plan for business units to actively manage their portfolio there were nine recorded in 2012 and 11 recorded in 2013. That increased to 18, 29, 27 and 38 in each of the four years since. While 2018 is currently running at a slower pace, there are 11 deals slated for the final quarter alone.

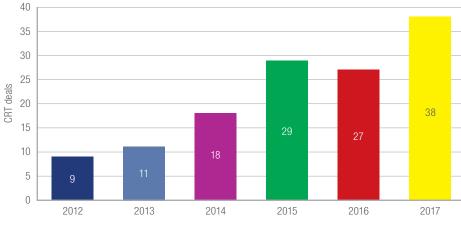
"The CRT space has seen growth rates stabilise over the last few years. We talk a lot to investors and also to quite a few issuers and our view is that the market is steady, with growth perhaps picking up a little more recently than it did in the last couple of years," says Markus Schaber, managing partner, Integer Advisors.

As the number of deals has increased over the last few years, so has the use of them. That in turn has caused changes in the types of risk being transferred.

"Over the last few years there has been a shift away from using these deals simply to achieve risk weight reductions. Transactions now are also much more carefully calibrated to optimise return on capital, which is interesting because it has brought more portfolio types into the market," says James Parsons, md, PAG.

The growth of portfolio types, issuer base, issuance jurisdictions and the investor base are all highlighted in this report. In many ways, however, the missing piece for the market is regulatory change.

Exhibit 2: CRT deal issuance – 2012-2017



Source: SCI's CRT database



Chapter two: What's in a name?

Naming confusion

One of the first things to get to grips with when it comes to CRTs – whether those initials are understood to abbreviate either capital relief trades or capital release transactions – is that there are several names for these transactions, each referring to essentially the same thing. At their heart, CRTs are synthetic securitisations done for very specific purposes.

As a further complicating factor complementing this raft of names, there is a separate CRT market – for credit risk transfer – which is often conflated with capital relief trades. These other credit risk transfer deals are referred to in this report as US GSE CRTs.

The issue of what to call this market is intimately entwined with the imperative to avoid confusion with the US GSE CRT market. It is also about keeping the regulators onside, as their approval is vital to the transactions' success.

"The most important objective is to identify a name that satisfies all of the key stakeholders involved with the asset class. Regulators do not look favourably on the term 'capital relief' and capital relief is not the only justification for banks to issue," says Kaelyn Abrell, partner and portfolio manager, ArrowMark Partners.

She continues: "We prefer the term 'significant risk transfer' or SRT transactions. Referring to the securities as CRTs is confusing for US investors because of the market established by Fannie Mae and Freddie Mac."

The US GSE CRTs issued by Fannie Mae and Freddie Mac are quite different because they only reference housing collateral and have other material structural differences. Capital relief trades, by contrast, contain a diverse – and diversifying – set of underlying collateral and continue to evolve in ways in which the US GSE CRTs do not.

Sharing risk

Market participants agree on the need for a common name to refer to the market by. However, they do not yet agree on what that common name should be.

"It would be great to agree on a name that is more encompassing than capital relief trade or regulatory capital transaction. While it is true that regulatory capital does drive transactions, many others are done to reduce risk or manage single-name limits," says Leung.

Leung prefers to refer to the transactions simply as synthetic securitisations, because that is the structure and the form of them. It is not a universally favoured position, however.

"In my view it is a shame we did not get rid of the term 'synthetic'. Many market participants prefer to talk about risk sharing and really what CRTs do is fundamentally not so different to more

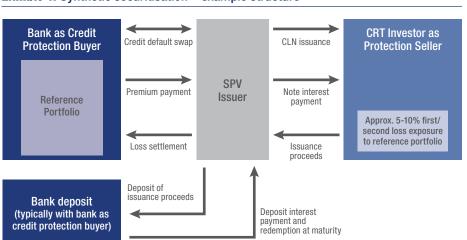


Exhibit 4: Synthetic securitisation – example structure

Source: Integer Advisors



traditional credit insurance in some ways, although the format and tenor is obviously

different," says Schaber. Others also favour a name which speaks more to the intentions of a transaction. The risk sharing nature of the

transactions is frequently stressed. "The market has outgrown the name capital release transaction. The emphasis should not be on 'capital' but transferring risk, not a therapy for banks that need 'relief' from their distress but a routine risk management tool," says Richard Robb, ceo, Christofferson, Robb & Company.

He continues: "The two largest investors – PGGM and CRC – as well as the EBA use the term RST which stands for risk sharing transactions. I would prefer to move away from 'T' for 'transaction' since the most valuable relationships between banks and investors turn into long-term partnerships that transcend the transactional."

Robb suggests that if the CRT acronym is to continue to be used, it could be worth bringing the market into line with US GSE CRTs and referring to both markets as credit risk transfer. While this may bring the capacity for confusion, he is not alone in making the suggestion.

"We call these capital protect transactions – for example our most recent deal, in April, was LibreMax Cap Protect 2018-1 – but credit risk transfer is also a suitable name because these deals are about credit, risk, and its transfer.



These are certainly not just regulatory capital transactions," says Moffitt.

He continues: "A name such as capital release gets too close to the specific motivation of the issuer which is something I do not want to get into on a deal. What I care about is the alignment of interest."

Capital protect transaction, capital relief trade, capital release transaction, credit risk transfer, risk sharing transaction, significant risk transfer and simply synthetic securitisation can all be used to refer to the same trades. Another name for them is concentration risk management deals, but it is risk sharing transactions – the moniker favoured by some of the largest investors and the EBA, as mentioned – which is most frequently put forward.

Kaikobad Kakalia, cio, Chorus Capital, prefers a name which emphasises risk sharing because these transactions are for far more than simply capital relief. He says: "Calling these deals capital relief trades is too narrow. Banks also run the risk of spooking regulators, who may assume questionable motives."

Kakalia continues: "The partnership aspect of these deals is important. This is not just about risk transfer, because the bank remains very much involved and invested in the outcome."

Kakalia notes that a core concept for these deals is that if the bank does well, then the investors do well. It is not like many other markets where assets are sold and one party benefits while the other loses out. Risk sharing therefore brings out a flavour that is not captured by capital relief.

Parsons says that his firm is another which prefers to refer to these deals as risk sharing transactions. He says: "They do more than just share risk but that is a central aspect of what they do and it takes a step away from the idea that these trades are driven purely by a single form of capital relief."

The lack of an agreed nomenclature "is holding the market back" says Leung. He also believes that a name which is "regulator-friendly would be particularly beneficial", which is a common refrain from market participants looking for a more suitable and encompassing name for these deals, so he personally favours names which emphasise risk mitigation and sharing, which better capture the spirit of what these deals are designed for.

Assia Damianova, special counsel, Cadwalader, Wickersham & Taft, says: "CRTs may also be referred to as risk sharing transactions or as risk-partnership

Exhibit 5: Synthetic securitisation structural features – mapping issuer, investor and regulator considerations

Kan Olana Land	Key Structural Issuer Regulatory Considerations (based on latest EBA pape				
Key Structural Features	Issuer Considerations	Regulatory Conditions	Regulatory Rationale	Investor Considerations	
Tranching	Sized to optimise capital relief Retention of senior tranche (except standardised banks in some cases)	Tests to calculate risk transfer significance based on expected loss, unexpected loss, tranche thickness etc.	Ensure that risk transfer significant / commensurate	Attachment point and thickness of tranche are key drivers for credit risk profile of protection tranche	
Sequential vs Pro-Rata Amortisation	Optimise credit protection costs in line with portfolio amortisation	Need triggers to switch to sequential if: - Cum losses > lifetime expected loss - Cum non-matured defaults > outstanding notional of protected tranche and below - Credit deterioration and/ or concentration increases above specified levels	Avoiding credit protection erosion over time, specifically for backloaded stress scenarios	Increase in WAL and exposure horizon if trigger hit	
Call Options	Flexibility to call transaction if no (efficient) capital relief	Regulatory and SRT call options generally allowed Time calls allowed if exercised after pool WAL, cannot provide credit enhancement	Avoiding implicit support when exercising time calls	Generally higher call optionality compared to traditional ABS, leading to higher prepayment risks	
Excess Spread	Cover expected loss in a capital efficient way	Committed amounts on a yearly basis must be below 1yr expected loss Trapping mechanism required	Avoiding credit support beyond coverage of expected losses which is not fully deducted from capital (on a cumulative basis)	Excess spread as credit enhancement covers expected loss, but subject to potential timing and single obligor risks, depending also on trapping mechanism	
Protection Premium Payments	Depending on structure can implicitly include coverage of expected losses	Must be structured as contingent premiums (i.e. premium reduction if credit event amounts eat into protected tranche)	Avoiding premium structures which effectively provide implicit credit or yield support	Yield reductions depending on amount and timing of credit events	
Credit Event Definitions / Loss Mechanism	Compliance with regulation and avoidance of credit outcome 'gaps'	Must include at least: - Failure to pay - Bankruptcy - Restructuring	Avoiding limited credit protection on underlying loans which would leave certain negative credit outcomes uncovered	In case of restructuring potential exposure to bank servicing/work out decisions (subject to documentation)	
Alignment of Interest	Horizontal 5% (first loss) retention not feasible in CRT, other forms needed	Minimum risk retention requirements for securitisations	In line with true sale requirements	Key consideration given limited first loss retention, focus typically on core assets	
Deposit / Collateral Structure	Held within bank to achieve 0% risk weight and avoid investor counterparty risk	No specific regulation for SRT, in line with CRR framework		Risk of bail-in haircuts under any resolution or bankruptcy of bank depending on structure	
Termination Clauses	Automatic termination events beneficial for investor	Termination in case of Failure to pay or other material contract breaches allowed Termination in case of bank bankruptcy could hinder SRT	Avoiding credit protection termination in a bank stress scenario	Potential exposure to servicing quality deterioration and higher credit volatility after bank bankruptcy	

Source: Integer Advisors

deals, which perhaps better reflects the significant level of investor involvement and also the effect of the arrangement. However, it may be too late to make that point now because the term has been used in various sets of rules and papers."

She continues: "CRTs are beneficial as they release regulatory capital that can be deployed elsewhere and allow lenders to continue lending in less lucrative sectors. This is recognised by the EBA, in the context of SME balance sheet securitisations, for example, so it is a shame that the term still carries negative connotations and also that there are no published criteria yet that may permit the extension of the prudential treatment granted to simple, standardised and transparent securitisations under the new securitisation regulation."



Chapter three: Efficient risk transfer in multi-asset class securitisation

Sponsored statement from Caplantic

Since 2012, Caplantic has been active in the structuring, advising and servicing of transactions targeting the optimisation of financial institutions' RWA. By leveraging our longstanding experience, we have managed to execute various large scale balance sheet securitisations that introduced both innovative structural features, as well as diverse asset classes, to the European market.

By inclusion of multiple asset classes into a combined transaction pool it is possible to relief regulatory capital across multiple business lines. This is particularly attractive for smaller balance sheet issuers who can achieve lower concentration limits in blind pool transactions.

Likewise, multi-asset class deals that go beyond more standardised SME securitisation programmes provide investors the opportunity to invest more broadly in the business model of the originating bank. A diversified pool which includes anti-cyclical elements can be a welcome addition to a standard CRT portfolio.

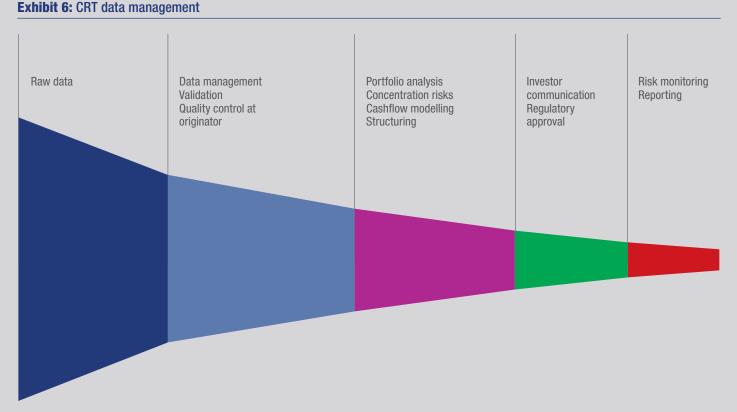
Due to the increased complexity of multi-asset class collateral pools and the often tailor-made character of transaction structures, a successful deal execution can only be ensured through transparent and well managed processes. Firsttime issuers and smaller originators



who often lack the required in-house resources can still achieve a successful execution by partnering with specialised service providers.

Especially during the structuring and due diligence phase the involvement of an independent third party can send

"By inclusion of multiple asset classes into a combined transaction pool it is possible to relief regulatory capital across multiple business lines"



Source: Caplantic



a positive signal to potential investors. Actively managing the information asymmetry inherent in large scale blind pool transactions can lower transaction costs significantly.

Besides the positive effects resulting from a direct involvement with potential investors, experienced third-party servicers can provide a competitive edge when dealing with the technical tasks around the securitisation process. From past experience, we are certain that an efficient closing must be based on thorough data management. This not only includes the assessment of availability, quality and integrity of data but also a standardised data aggregation process to produce onpoint due diligence documents and reports tailored to investor needs.

Due to the scope and complex nature of executing a levered risk transfer transaction, a professional approach to project management is at least as crucial as the required technical skill set. Connecting the dots between internal and external stakeholders, Caplantic has supported originating banks through all transaction phases.

Starting from the identification of potential portfolios within individual business units and account managers, up to the coordination of the regulatory approval process with bank divisions, we have either assisted or led the individual process steps. The existence of a permanent securitisation team at the originator – although helpful – is not mandatory.

Historically, large multi-asset deals have been structured to maximise capital relief efficiency with a placement of lower mezzanine tranches. These relatively thin tranches carried high risk weights with limited subordination which ensured significant risk transfer to investors. Both in the portfolio selection process as well as the structuring process these transactions rely on a tailor-made approach that contrasts with highly standardised securitisation programmes for example involving SME exposures.

In these customised environments, an innovative structuring approach is necessary to achieve the best possible capital relief. In the continental European market Caplantic has closed transactions with unique structural elements like an optimised subordination structure including excess spread and reserve account components or controlled amortisation features that provide ongoing transaction efficiency while ensuring compliance with regulatory SRT requirements. sheet effects and freeing up risk limits for new investments.

At the same time, additional guidelines on SRT published by the EBA put a higher level of scrutiny on originating banks. The focus is on internal processes that support the analysis of the transfer of risk to third parties.

Systems and controls need to be in place to allow the ongoing monitoring of SRT requirements. Caplantic has advised originating banks on the optimal set up of these processes providing technical infrastructure to perform necessary analysis and the key methodology to

"Due to the scope and complex nature of executing a levered risk transfer transaction, a professional approach to project management is at least as crucial as the required technical skill set"

The introduction of new calculation standards for retained tranches on synthetic securitisations (SEC-IRBA/ ERBA/SA) has significantly decreased the efficiency of mezzanine transactions and pushed originators towards higher risk sharing by the placement of thick first-loss tranches. Little or no retention of first-loss risk has increased the price of synthetic capital relief for originators.

Consequently, originators are looking for new ways to incorporate effects of synthetic transactions in their balance sheets (funding, IFRS 9, relief of EL provisions). Synthetic securitisations are starting to move away from a one purpose instrument for capital relief towards multipurpose instruments including balance demonstrate effectiveness of SRT to regulatory authorities.

The current push by large institutional investors towards more alternative investments in the low interest rate environment combined with a reduction in transaction complexity due to regulatory constraints have opened the synthetic securitisation market to a wider investor base.

The resulting higher competition level has lowered price points for first-loss tranches, even for synthetic transactions. These market trends offset some of the regulatory costs imposed by the new calculation approaches. Synthetic securitisations remain competitive instruments to lower the capital burden.





Chapter four: Origination and structuring

The factors driving **CRT** issuance

Banks issue CRTs for several, albeit rather specific, reasons. It may be to improve business performance, reduce concentration risk, manage exposures in line with lending limits, reduce P&L volatility or to manage capital to optimise efficiency and improve profitability metrics, and they do so by working closely with the investors who will take on the risk exposure.

"The partnership aspect of these deals is important. This is not just about risk transfer, because the bank remains very much involved and invested in the outcome," says Kakalia.

He continues: "The bank wants these trades to do well, unlike in the case where it is selling assets, and one party benefits while the other loses. Our performance is closely tied to that of the bank; if the bank does well then we do well."

CRTs achieve the same goal as credit insurance, albeit with a very different framework. These synthetic securitisations are transactions which achieve the same thing as hedging with CDS, buying credit insurance or even selling or syndicating assets.

Portfolio managers are typically looking to CRTs to free up regulatory capital to be used elsewhere. Synthetic securitisation allows them to transfer risk when assets are illiquid and impossible to sell via other avenues, although they are complex and complicated transactions which require educated and understanding regulators.

It is possible, however, that the degree of complexity is overplayed. Schaber believes that an increase in public issuance would help the CRT market to grow, and says there are many deals done privately which do not necessarily need to be private. Bringing them out publicly would help to build familiarity with the product.

Schaber says: "I would strongly argue that many of these deals are not so complex so as to be sellable only into private markets; there is more risk than in a normal securitisation because of your position in the capital structure, but there is nothing inherently complex or opaque about these deals per se."

Giacalone notes that among the most frequent originators and structurers are

the likes of BNP Paribas, Deutsche Bank and Santander, to which one might add Barclays, Credit Suisse, Lloyds and RBS, among others. The most active banks in Italy are Intesa Sanpaolo and UniCredit, and Italy is certainly a jurisdiction which has increased in importance for the market over the last couple of years.

Different jurisdictions

The CRT market is essentially European in terms of issuance, although the investor base is far broader. However, September 2018 shook the CRT market with the announcement of Room2Run, a US\$1bn transaction backed by a pan-African portfolio of loans to infrastructure projects and financial institutions.

"The deal from the African Development Bank is a good example of how this technology can be deployed by a wider range of users than just commercial banks seeking to de-risk. The Room2Run deal shows that it is not just traditional Tier 1 banks who can do these deals. Supras are absolutely looking at this space and discussing what is possible, and their involvement would help to open CRTs up to a much wider audience," says Schaber.

The transaction was structured as a synthetic securitisation transferring the mezzanine credit risk on a portfolio of around 50 loans from across the African Development Bank's non-sovereign lending book. Africa50, the European Commission, Mariner Investment Group and Mizuho were all also involved in the transaction.

Mariner took 80% of the senior tranche and Africa50 took the other 20%. The European Commission provided credit protection through its European Fund for Sustainable Development through a senior mezzanine guarantee.

"The African Development Bank's transaction is really quite remarkable. Closing a deal with a portfolio of diverse loans such as power, transport and manufacturing spanning the African continent - rather than a European portfolio as the market is used to - and attracting the European Commission as a backer, amongst others, is an incredible achievement," says Damianova.

She continues: "If the European Commission has the appetite to offer its senior mezzanine guarantee to such deals, then that significantly boosts the interest of the investor base and paves the way for more commercial investors. The end of the year is when the bulk of transactions get done and this Room2Run deal sets a very promising tone."

A jurisdictional broadening of CRT issuance would be warmly welcomed by the market. The reason issuance is prolific in Europe but has not taken off in the US, for example, has a lot to do with how the continents differed in their reaction to the 2008 financial crisis.

"The preponderance of transactions come from Europe because the European banks were early Basel adopters, saw the need to transfer risk and optimise capital, and had lots of credit challenged assets which were eroding capital," say Moffitt.

Within Europe, the UK market is larger than continental markets. This is partly because the ECB treats each country - and sometimes seemingly each bank - on an individual basis, which is more time-consuming than the UK's more standardised approach overseen by the PRA, but activity on the mainland is starting to rival issuance from the UK.

"Many European deals are private so the transparency is not as high as it is in the UK. Specialised lending transactions are often done privately. Last year there were maybe 20-25 transactions from Europe and the market is growing as investors have come to understand the





product and its use for increasing capital," says Korn.

The most active jurisdictions in continental Europe are Germany and Switzerland. Italy and Spain, meanwhile, have been picking up noticeably, while France is a well-established jurisdiction for CRTs.

"Things are generally opening up. In Spain, Santander has put many consumer transactions through the market and it is true that Spain needs securitisation. However, the fundamental view on Spain is not easy, not least because of real estate losses and high unemployment," says Korn.

He continues: "Italy is another one but that is difficult because of the political environment and the nation's very high deficit, although the NPL market is very active. We see securitisation activity there and it is a developing market. Investors might be cautious but that could be because of the macro situation rather than because of the product."

As well as these markets, there have been a few other pockets of activity. These pockets could grow larger if banks find themselves more in need of capital.

"A bank in the Nordics also had a deal a couple of years back. However, we also think of markets in terms of the regulatory authority, so it is largely the PRA and the ECB which dominate," says Parsons.

"Activity is building in other parts of Europe as well as Asia and North America. Banks based in Japan and Canada issued within the last year and we expect additional activity in the near-term," says Abrell.

Those new jurisdictions will require a first mover. If one bank can issue a CRT, then its domestic peers will typically attempt to follow.

"Financial institutions within a given geography are often trying to overcome similar business hurdles. The initial issuance of an SRT highlights the various benefits the securities offer to the issuer. Additionally, the first issuer typically lays the groundwork from a regulatory perspective, which can ease the process for competitors," says Abrell.

A considerable focus for the CRT market is on the US. Many CRT investors are based there, but domestic banks have not issued transactions, despite the fact that many of them could enhance ROEs by doing so.

"There is no first-mover advantage in a highly regulated environment like banking, resulting in a lot of discussion and interest but no early adopters. To the extent a transaction brings new and unconditional capital to the banking system, we also believe that the regulators may see that as a good thing," says Moffitt.

Moffitt adds: "This is a clubby market with five to seven usual suspects that invest in a good number of these transactions. That said, there are many investors who would love to see CRTs and there are certainly bankers working to make that happen. However, given the time and expense associated with a transaction, it is tough for a bank to bet on a new and inexperienced investor without incurring substantial execution risk." "We have spoken to a large, global bank domiciled in the US. They would like to issue and are methodically working through the necessary steps to complete a transaction," says Abrell. "While US regional banks are interested in SRT issuance, we believe a large, well-resourced bank will likely provide the catalyst for geographic expansion to the US."

There are Asian banks looking at CRTs and high hopes for the market's expansion there, although the likelihood of CRTs spreading to Australia is much slimmer. APRA, the local regulator,

"There is no first-mover advantage in a highly regulated environment like banking, resulting in a lot of discussion and interest but no early adopters"

The main barrier to CRT activity within the US is that there are not so many problems for which synthetics are the best solution. While there are some concentration issues in certain sectors, the need for regulatory capital relief is nowhere near as strong as it is in Europe.

"Experienced investors would like access to US credit, especially middle market credit, as an asset class and have had conversations with issuers and regulators. We have been having conversations as well and there is a chance that as an association we will start to do that more collectively, but the largest hurdle with the US is not educating issuers or regulators, it is that the underlying need to transfer risk (in middle market assets) is currently limited," says Leung.

He continues: "If the economic environment changes then the need for US banks to transfer risk could grow. If this does become a tool which US banks have to rely on, then they will want to have some experience of it already under their belts."

Regulators certainly will have to be brought on board, however. While European regulators have been fairly amenable to these transactions, US regulators are yet to embrace the concept. Once they do, there are banks getting ready to go. strongly opposes the use of synthetic securitisation as a capital mitigation tool.

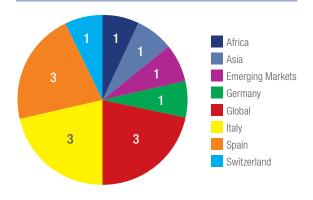
"Developing the market in Australia is not a matter of education because they fully understand what these transactions are and what they do. The opposition there is a philosophical stance and the regulators are very conservative in their approach," says Leung.

Structural and asset changes

While jurisdictions are changing, so too are the ways in which deals are structured. Moffitt notes that CRTs are quickly moving away from CDS and towards the use of financial guarantees.

"This is because the use of [financial] guarantees avoids the P&L volatility and skew associated with CDS," he explains.

Exhibit 7: Issuance count by jurisdiction (where known) – first three quarters of 2018



Source: SCI's CRT database



He believes there is a fairly even split between bilateral and syndicated deals, although LibreMax is only involved in the bilateral ones, which provide greater scope for teasing out the desired risk and striking a balance which suits both investor and issuing bank.

A CRT requires the right combination of collateral, structure, and issuing bank alignment. While uniformity is increasing, each transaction has its own nuances.

"Issuers and investors can use a variety of levers to achieve their targeted outcomes. Credit spread is not the only tool to offset collateral risk, which is important as issuers are cost-conscious. We try to explore all available options to meet the risk/return profile required for our investors and the needs of the issuer, which is an approach they appreciate," says Abrell.

She continues: "We were involved in the structuring of a large SRT issuance in 4Q17 and offered the originator several options to achieve the targeted spread level. One option was offsetting potential collateral pool losses with excess spread, which is used quite regularly in ABS but is less common in SRTs. It is an example of the innovation we expect to continue in the SRT market."

There has also been innovation in the range of assets being used for CRTs. Corporate and SME loans remain the predominant reference assets, but there are NPL transactions from Italy, for example. While issuers would like to broaden the range of assets, they can only do so if investors will be willing to accept those more diverse offerings.

"The market has traditionally been driven by corporate and SME loans. The SME business has not diminished, but the corporate side has grown more rapidly. There are now many more large corporate disclosed portfolios," says Parsons.



Trade receivables and leasing exposures are increasingly being used, while Korn notes that Caplantic is mainly focused on alternative assets such as infrastructure, renewables and aviation loans. A CRT only referencing corporate assets will be far more correlated than some of these alternatives.

"I would very much like to do a sole aviation CRT; that is a personal ambition. The last one was in 2001 and the current securitisation market is not syntheticsdriven anymore, it is a true sale market. We are currently able to include aviation collateral by combining aviation with other asset classes," says Korn.

Those ambitious trades would certainly move the market forward. For now, much of the widening of asset types is only really playing at the margins, suggests Schaber. He notes that much of the current innovation in the market is actually less innovative than it first appears.

"While of course we do not see all trades, our discussions suggest that structures are largely unchanged. There has been a slight increase in CRE-driven trades but that is an increase rather than a brand new market. likewise infrastructure has been done before but is perhaps a little more prevalent now," says Schaber.

The biggest expansion in CRT assets seems to be in the 'other' category, which is being driven by the preliminary terms of Basel 4. More assets are going to be eligible for CRTs, so a greater variety of transaction types can be expected.

"Auto loan SRTs could come to market, for example. The transactions were previously uneconomic but that could change with the ongoing evolution of capital rules," says Abrell.

She continues: "Two CRE SRTs were issued last year with additional transactions slated for 2018. CRE is an example of a new collateral type and further evidence of the market's capacity to evolve. Different banks have different origination channels and these SRT transactions mimic those banks' balance sheets."

Parsons also highlights the increased prevalence of CRE lending and project finance. From a lending perspective there are many more technical products now, while changes in collateral composition have had a knock-on effect on how deals are put together.

"The use of blind and granular SME pools in the past lent itself to more widely syndicated deals brought by large issuers. However, the increased use of disclosed portfolios and more specialised products has increasingly led banks to do more bilateral and club deals," says Parsons.

He continues: "The increased prevalence of club deals has been a significant development. These typically have between two and five investors depending on how large the deal is. It is an attractive proposition for banks because they are able to get the price tension that they are looking for while also limiting the number of investors with which they have to work." set





Chapter five: Growing the investor base

Buying in to CRTs

The CRT investor base has grown over the last few years. There are certainly more investors now than there were in the years just after the crisis, with that increased competition typically squeezing margins tighter than they had been in, say, 2011.

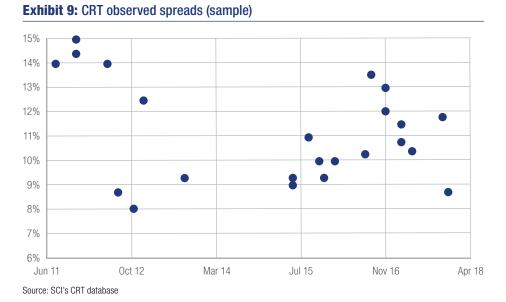
"In 2010 and 2011 there were only a few funds which had survived 2008. The heavy leverage guys disappeared and this was a small community. Compared to, for instance, Pfandbriefe, it still is a small community," says Korn.

Cheap monetary policy has increased the supply of money in the wider market, which has affected the CRT space as well. "A few years ago only the largest players could do a \in 500m tranche, but the supply of cheap money means that is much easier to do now. Even former smaller players can do a \notin 200m tranche right now," Korn comments.

The investor's mind-set

There are many reasons to invest in CRTs, but as with any potential investment it mainly comes down to a balance between yield and risk. The risk can be tailored and the returns can be relatively high.

The returns available in the asset class are hard to find elsewhere, but CRTs offer more than that. An investor avoids the



direct link to a bank which would exist if they simply invested in bonds, so they are not at the mercy of the bank's balance sheet performance.

That can be particularly important if a bank runs into trouble in one part of its operations – say, shipping – but the CRT portfolio has no exposure to that sector. Without CRT protection an investor could be dragged down by the shipping performance, but that does not happen with CRTs. Of course, that is not to say that AT1 bonds are not good products or do not have advantages of their own. However, CRTs allow investors to isolate risk and get a larger coupon in a small coupon environment.

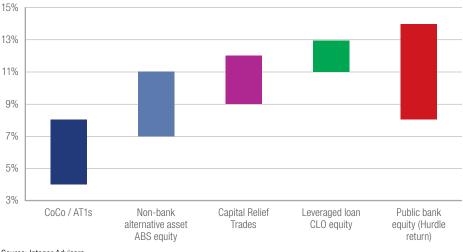
"The spread pickup relative to comparables such as AT1 bonds is often considerable and so more specialised alternative investors who have less constrained investment books will continue to find value in the CRT market. The investor demand is still there, so we just need supply to continue," says Schaber.

CRTs provide coupons that can only really be rivalled by leveraged loan CLO equity. The risk/reward available from CRT transactions is not the only attraction, however.

"SRTs offer investors the potential to preserve capital, even in the event of a prolonged period of market stress, while generating an attractive return in a 'normal' market environment. It is difficult to find that type of return profile in today's market," says Abrell.

She continues: "Institutions have a need to earn while also positioning themselves for the latter stages of the credit cycle. At the current point in the cycle, we believe the return profile of SRTs is attractive on an absolute and relative basis. The ability to preserve capital is increasingly

Exhibit 8: Yield comparables



Source: Integer Advisors





important as we enter the late stages of the cycle."

The investor base for CRTs remains fairly small, although it is expanding. Investing in the transactions requires a depth of expertise which not all firms have.

"While there are some new players on the edges of the market, essentially the investor base remains the same core group of stalwart firms that it has been for years. Bringing in pension money would certainly help to grow the market and also provide comfort and encouragement to regulators and politicians," says Leung.

group of maybe 15-20 dedicated CRT investors. Investors require a certain level of sophistication and expertise, so investors have to be committed to the space and not only act opportunistically," says Schaber.

He continues: "Having said that, there is definitely more investor interest. Our sense is that such newer interest in CRTs is often not converted to actual investing given various hurdles, so for now it is near-impossible for current deals to get done without involving the traditional investor base."

The single largest member of that traditional investor base is understood to be PGGM and the arrival of more pension funds could be significant in growing the market. Sovereign wealth funds and public or supranational investors have increased their activity over the last few years.

"The investor base is growing and will continue to develop as the market matures; however, it is not growing as quickly as the issuer base. The size of issuing institutions and their balance sheets are much larger than the current investor universe and asset base. As issuers continue to embrace the asset class, it is increasingly important to ensure that there are sufficient investors to support the market, so the investor base must expand," says Abrell.

"The investor base is growing and will continue to develop as the market matures; however, it is not growing as quickly as the issuer base"

He continues: "However, what would damage the market is if those new entrants did not do their research, were not educated, and got into a deal that they either did not understand fully or are disappointed in the outcomes. Lopsided returns or investors taking on risk they do not understand would not help the market to grow."

Activity three years ago was dominated by less than a dozen investment management firms. That is understood to have increased to as many as 20, with the largest investor group being hedge funds.

"Issuers tell us that there is more interest from a broader range of investors, but we feel that it is still difficult to get a deal done outside the core

Expanding the investor base is tricky because of the relatively high barriers to entry, with issuing banks frequently being very selective about who they will work with. As long-term investments, they certainly do not suit every investor.

"It is of paramount importance for the sponsors of these deals that they are confident in the reputation of potential investors and their ability to see things through. The investor base has not changed a lot because there is a limited pool that banks know will preserve confidentiality and deliver execution," says Parsons.

He continues: "In today's market an investor must be able to write a big ticket and, particularly with some of the more

specialised lending products, there has to be flexibility in structuring the deal. There are so many moving parts that investors who will make the process easier rather than harder are valuable."

The illiquidity of CRTs is something prospective investors must bear in mind. Coupled with the long life of many of these deals, investors must be willing to remain invested for the long haul.

The average deal's duration is three to five years. While there is a limited amount of secondary trading, it typically happens by appointment and it would be wrong to speak of an active secondary market.

"There are many transactions which are held by a very small number of investors and these never become available in the secondary market. This situation is the opposite of what one observes in the public market, where it is common for secondary flow to be greater than primary," says Kakalia.

He adds: "It is a challenging space to invest in. You need long-term capital and the patience to invest through cycles rather than chasing quick returns. As an investor you need a good understanding of banking regulation, structured finance, have the ability to analyse and underwrite credit, and bring a solutions mind-set to the business."

Pension power

The integration of more pension capital into the CRT market could dramatically grow the space. The investor base is often said to be undercapitalised, with pension money perhaps providing the missing link to growing the sector.

Specialist consultants that advise pension funds are therefore cast as gatekeepers to that much-needed extra cash. However, the CRT strategy may not be on pension consultants' radar, so there is a need to educate them and raise awareness.

In many ways pension funds would be an ideal addition for a market of longdated and illiquid paper, although there are challenges to be overcome, not least the fact that pension funds prize safety of investment and may therefore be wary of such a complicated first-loss product.

"The ultimate investor base for this asset class ranges from family offices to insurance companies, endowments, foundations, sovereign wealth funds and pension funds. Pension funds are potentially the largest, most scalable source of long-term capital for risk-sharing transactions," says Kakalia.

Kakalia likens sovereign wealth funds to pension funds for nations. Both appreciate







Markus Schaber, Integer Auvisore

contractual income and stable returns, and neither are necessarily concerned by a lack of liquidity as their liabilities are generally longer term in nature. Pension funds can invest either directly or through an investment consultant.

"While pension funds can invest directly, SRTs have unique characteristics that can be difficult for investors to overcome in terms of governance and diligence requirements. With respect to the latter, a successful investment programme requires a blend of fundamental credit expertise, structuring experience, regulatory understanding, and relationships," says Abrell.

The required resources and other aspects of the asset class can make partnering with an experienced asset manager a more efficient and effective method to gain exposure to the asset class. In the US, Abrell adds that pension funds have the added complication of ERISA regulations, so investing through a pooled vehicle can reduce the burdens those regulations impose.

Kakalia identifies the single largest investor in the CRT space as PGGM, the asset manager for the second-largest Dutch pension scheme. It has over €200bn of AUM and a dedicated CRT exposure, so the effect if other pension funds took a similar approach would be significant.

"Not every pension fund has followed PGGM's lead. Some allocate their capital to asset managers like Chorus Capital, but some others are put off by the complexity in this area," he says.

PGGM has a dedicated team for CRTs, which its significant investment justifies. A pension fund investing US\$100m-US\$300m might not find it worthwhile to hire a team and therefore would most likely prefer to use an external manager. managers, with at minimum a two-stage process, starting with a thorough due diligence of the new strategy. Then, assuming the strategy is approved, there is an assessment of managers.

In some instances pension funds will add an intermediate step, where they decide on the type of manager, which could be a specialist or a multi-strategy firm. From initial interest to investment allocation can take from six up to 24 months.

Education is a priority for both pension funds and other potential investors. Companies such as Kakalia's Chorus Capital market to investors directly, but the number of firms is limited and therefore it takes time for the message to spread.

"It can take years, from the first conversation with a researcher at the pension consultant to then talking to their

"While pension funds can invest directly, SRTs have unique characteristics that can be difficult for investors to overcome in terms of governance and diligence requirements"

Some pension funds may also require the advice of an investment consultant. These consultants in turn need to appreciate the value of risk-sharing as a long-term, stable and scalable strategy. Large pension funds have prescribed processes for allocating funds to external team and them talking to their clients. Once a firm understands the product and makes the decision to invest then there is still a delay while they wait to have money available to allocate to the strategy. From start to finish can take years," says Kakalia.





Chapter six: An asset manager's perspective

Sponsored statement from ArrowMark Partners

With over US\$1.4bn invested in 25 SRT transactions since 2010, ArrowMark Partners has been at the forefront of the SRT market's evolution. Demonstrating an ability to adapt to ongoing market developments, the firm's investment track record is illustrative of the asset class' maturation.

An initial focus on bilateral, large corporate transactions evolved into an opportunistic investment effort that today includes sourcing from primary and secondary markets, evaluating securities containing a diversity of collateral types, and negotiating the inclusion of structural attributes that enable SRT transactions to meet the objectives of investors, issuers, and bank regulators.

ArrowMark's consistent participation in the asset class is the result of partnerships with institutional and individual investors seeking to capitalise on the unique risk and return profile available in the SRT market.

Partner and portfolio manager Kaelyn Abrell highlights: "SRT has the ability to help a variety of investors achieve their broader risk and return objectives. The absolute return potential, ability to mitigate downside, and historically low correlation to traditional and alternative asset classes reinforce the complementary nature of exposure to the asset class."

Investor awareness

Investors seeking to build and diversify private credit exposures are increasingly recognising alignment between SRT and the investment thesis that supports allocations to middle market direct lending, mezzanine debt, and other illiquid debt strategies. However, despite increasing interest in the SRT market, most investors – public and corporate pension plans, endowments, foundations, outsourced CIOs, multi- and singlefamily offices – generally still have limited familiarity with the asset class.

The core attributes of SRTs are consistent with other types of structured credit. Investors purchase an equity or mezzanine security that references a diverse pool of performing collateral held on the issuing bank's balance sheet. The composition of the initial collateral pool and guidelines governing replenishment, if permitted, are determined through negotiations between investors and the issuer.

Similarly, structural aspects, including tranche characteristics and the nature of the bank's retained exposure to the underlying collateral, are tailored to fit the collateral's risk profile and developed through a series of negotiations. In exchange for holding the equity or mezzanine tranche, investors receive a floating rate coupon comprised of threemonth Libor plus a contractual spread less any realised losses that occur in the underlying collateral pool.

"Assuming a security is structured appropriately for the type and quality of the underlying collateral, investors are compensated for taking on the idiosyncratic credit risk of exposures in the reference portfolio," notes Abrell.



Market evolution

SRT securities and the market have undergone evolutionary changes since the asset class' nascent stages. Understanding historical and ongoing developments is imperative to properly assess the merits of the SRT investment opportunity today.

Intended utilisation. Once viewed primarily as an instrument to help manage capital in response to the implementation of Basel 3, SRTs now play a broader role in bank's ongoing balance sheet optimisation and management efforts. Per Abrell: "Issuers cite the ability to manage exposures in line with internal guidelines,

"Assuming a security is structured appropriately for the type and quality of the underlying collateral, investors are compensated for taking on the idiosyncratic credit risk of exposures in the reference portfolio"

"Interest rate sensitivity is limited due to securities' floating rate coupons. Counterparty exposure is mitigated through the application of various terms governing the deposit account that holds investors' principal."

Abrell continues: "Given the nature of SRT investment risk, our first priority is to thoroughly evaluate fundamentals of the collateral pool and analyse potential performance throughout a range of market environments. The second step is to develop a structural framework for the security based on this risk assessment. Ultimately, we strive to work with an issuer to design a security with the right combination of collateral, structure, and investor/bank alignment." more quickly adapt to changing regulations, and improve profitability metrics, among others, as supportive of SRT utilisation."

The benefits are evident in broadening use by longer-term issuers and the entrance of new issuers within and across geographies. Supply dynamics support expectations that the opportunity will persist and, barring material growth of the investor base, continue to offer a return premium.

Collateral diversity. Growth of the issuer base and regulatory changes are driving continued expansion of SRT security types. While it is anticipated that securities backed by term loans and revolving lines of credit extended to large





cap corporates and SMEs will remain the largest components of the market, recent issuance also included securities referencing collateral pools comprised of residential mortgages and CRE loans.

Other types of historical transactions include infrastructure and trade finance. Increasing collateral diversification further supports new issue supply expectations and investors' efforts to construct diversified portfolios of SRT investments.

In addition, the inclusion of new collateral types is contributing to greater variation in security risk and return profiles. Potentially appealing to a broader group of investors, securities are becoming available that offer higher risk/higher returns and lower risk/lower returns relative to the profile of 'traditional' SRT securities.

Structural flexibility. Issuers and investors have a variety of structural 'levers' that can be used to help achieve the desired outcomes of each party. Credit spread is the most obvious characteristic that can be adapted to differing collateral risk profiles.

However, other options – such as adjusting tranche thickness or issuing a mezzanine tranche (with the issuer retaining the equity tranche) - have historically been used to offset collateral risk. More recently, investors in the asset class started incorporating additional types of credit enhancement commonly found in other forms of structured credit.

"We were involved in the structuring of a large SRT issuance in 4Q17 and offered the originator several options to achieve the targeted spread level. One option was to offset potential collateral pool losses with excess spread, which is used quite regularly in ABS but is less common in SRTs," states Abrell.

Market participants' willingness to tailor security structures to meet the differing needs of issuers and investors is evidence of SRT innovation. Security variations also reinforce the need for investors to possess structural expertise, in addition to the ability to thoroughly evaluate collateral fundamentals, in order to successfully capitalise on the investment opportunity.

Asset class maturation. Ongoing development of the SRT market has been accompanied by hallmarks of a

Partnering with investors

Drawing upon the diverse perspectives gained from investing across niche segments of credit and equity markets, managing CLOs, and lending to middle market companies, ArrowMark partners with investors to develop investment solutions tailored to their specific needs. In the current market environment, the starting point for conversations is often focused on the ability to generate returns while positioning for the latter stages of the credit cycle. SRTs are a common topic in these discussions.

"SRTs offer investors the potential to preserve capital, even in the event of a prolonged period of market stress, while generating an attractive return in a 'normal' market environment. It is difficult to find that type of return profile in today's market," says Abrell.

The absolute and relative attractiveness of the asset class does not diminish the need for investors to partner with a skilled investment manager. Issuer and security selection are paramount and, combined

"We were involved in the structuring of a large SRT issuance in 4Q17 and offered the originator several options to achieve the targeted spread level"

maturing asset class. For example, while new issuance continues to drive the bulk of investment activity, a secondary market has developed. Opportunities sourced from the secondary market offer vintage diversification as well as the potential to generate returns through price appreciation in addition to security coupon income.

Financing is also available to enhance the return profile of select investments. The ability to apply leverage to individual transactions is noteworthy given growing issuance of securities with lower risk/ lower return profiles and other potential near-term changes to security structures. with active monitoring of collateral pools, can lead to material differences in investment outcomes.

"SRTs have unique characteristics that can be difficult for investors to overcome in terms of governance and diligence requirements. With respect to the latter, a successful investment programme requires a blend of fundamental credit expertise, structuring experience, regulatory understanding, and relationships. The required resources and other aspects of the asset class can make partnering with an experienced asset manager the most efficient and effective method to gain exposure to the asset class." ==





Chapter seven: Regulators' role in growing the market

Regulatory support

"A more friendly regulatory framework could contribute to the development of this market," says Giacalone. This is a widely held opinion within the CRT market.

Banks are compelled to meet Basel 3 capital adequacy requirements by the end of March 2019. The significant regulatory pressure to reduce RWAs and increase capital buffers to boost Tier 1 capital ratios is not going to go away any time soon.

Basel 4 is in the works and set to follow the full implementation of Basel 3. Regulatory changes can broaden the appeal of CRTs by ending the stigma which many would say is undeservedly associated with synthetic securitisation and by increasing the product's availability.

"The key challenge for the CRT market remains regulatory treatment. It is a market which, far more than most, is defined by its regulatory environment," says Schaber.

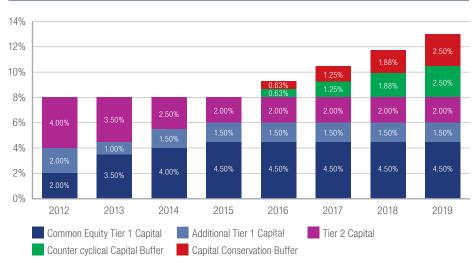
He continues: "Banks want to use this technology more frequently. For example, there is stronger demand from smaller banks, but current rules and regulations mean it is not easy for them to get these deals done, although institutions such as the EIF can sometimes facilitate deals in this regard."

A current focus for regulators as part of the CRR rules implementing Basel 3 is ensuring that regulatory capital relief is truly commensurate with risk transfer. This is something which the PRA has a reputation for doing very well already, while certain other domestic regulators are expected to improve their oversight.

"Articles 243 and 244 of the amended CRR underline the key considerations and conditions for regulated firms in offbalance sheet transactions. Regulators are paying particular attention to the economic substance of the transaction and whether regulatory capital relief is commensurate with the level of risk transfer being undertaken," says Damianova.

She continues: "Regulated firms apply judgement in structuring and accounting for their SRT trades. So in the UK, the PRA places requirements on notifications and ongoing communications and has now clearly expressed its expectations for senior management in SRT transactions, proposing to align

Exhibit 10: Basel 3 capital requirements



Source: Integer Advisors

the governance standards to the Senior Management Regime."

The PRA also released a consultation paper in 2Q18 which, as well as singling out CRT transactions and commensurate risk transfer to third parties, highlighted the hardening regulatory view towards synthetic excess spread. The regulator says that the presence of synthetic excess spread makes it more difficult to demonstrate commensurate transfer of risk as it provides credit enhancement to more senior tranches.

Damianova comments: "The PRA's expressed view on excess spread may appear restrictive, applying high risk weights to the nominal value of credit enhancement provided by the SES feature because, they say, synthetic excess spread should be treated as an off-balance sheet securitisation position. As mentioned above, the PRA has also clarified its expectations for engagement of firms' senior management in SRT transactions, to ensure accountability."

Basel 4 will not come fully into effect until 2027. It will require banks to hold much more capital against their loan portfolios than they would otherwise choose to, so risk transfer will be made even more attractive by the new rules.

Banks receive most benefit from transferring risk on portfolios which carry higher regulatory risk weights, which is why corporate and SME loans are used so often and the likes of auto loans and mortgages are not. Basel 4 will make higher regulatory risk weights more broadly applicable, thereby expanding the range of assets for which CRT risk transfer makes sense.

However, there are concerns that the regulatory burden is already too high. "For instance our transactions have not had any real allocated losses yet," says Korn, noting that the current "huge risk weights" may not accurately reflect the real economic risk, perhaps because opinions formed in 2008 have been slow to change.

"Banks using excess spread in the bad old days may have been a bit dodgy – as may CDOs, for example – but those products are gone and synthetic securitisation today is very different to how it used to be," says Korn.

CRTs remain somewhat niche and many regulators have only limited experience of them. Greater familiarity would therefore be helpful, but so too would a more level playing field, with European banks currently abiding by very different rules to their competitors across the Atlantic.

"European banks are struggling to live with Basel 3 and 4 which makes the cost of doing business so high, but they are competing against US banks which never even applied Basel 2 and so have a huge market advantage. Those US banks



can do much more business consuming much less capital for the same trade. That increases the pressure for international competitors," says Korn.

The way that Basel is applied differently in different countries, despite being a global framework, is one of the market's major gripes. The limited scope of STS regulations is also vexing.

"Expanding STS securitisation rules in the EU to include a broader definition of synthetics would be beneficial," says Leung. "Regulators do talk to each other but there are regional differences, so it would be good to see the regulators collaborating more, increasing their understanding, and developing greater consistency in their approach."

The UK PRA's consultation on credit risk mitigation, which is applicable to all firms bound by the CRR, is also related to this conversation. However, the focus of that consultation is credit insurance, rather than synthetics.

"With simple, transparent and standardised transactions, CRTs can bring meaningful new capital into the banking system. That said, it would be great to see greater harmonisation of structures across different jurisdictions," says Moffitt.

He continues: "However, I do not think that will happen. Basel is a global

framework, but since it is applied differently in different jurisdictions, it would be tough to harmonise. As investors, we are meant to ensure that transactions meet the simple, transparent and standardised framework. If we do so, the market will continue to grow."

The market will also grow as the product is used more broadly. Again, this can be made easier by regulators.

"The greater application of the product to solve different balance sheet metrics will see it grow, but growth depends on regulators as well. The value of the product is clear so what is needed now is regulatory consistency and clarity over what features the regulators like or would rather not see," says Parsons.

He adds: "We would also like to see shorter lead times for regulatory approvals. The EBA paper is an important first step toward progress and in due course should make a significant difference."

That EBA white paper is expected to provide CRTs with much-needed guidance. The market can benefit from increased regulatory clarity and transparency.

"The EBA has called for more standardisation, which is both positive and useful, although when some regulators take a very literal interpretation of the EBA's discussion paper that can lead to quite challenging outcomes for the marketplace," says Schaber.

He adds: "A clearer and more consistent approach from the regulatory side is possibly what would provide the single greatest boost to the CRT market. There will always be arguments that regulators are too conservative, but if issuers are confident about which transactions will be acceptable and which will not, then that makes the issuance process so much smoother."

Abrell also underlines the importance of giving issuers a clearer understanding of CRT regulatory treatment and the effect that can have in further expanding issuance. The EBA is in a position to provide such clarity and help to grow the market, not least by potentially opening up a mezzanine market.

"The EBA guidelines may require thicker tranching, which we would expect to be accompanied by lower spreads. If that occurs, additional tranching is one way to maintain the return profile of the first loss or equity piece. The development of a mezzanine market would take time to fully develop but we are familiar with investors interested in that type of risk and return profile," she says.

Glossary of terms

Basel 3 (and 4): A set of reforms developed by the Basel Committee on Banking Supervision (BCBS) to strengthen the regulation and supervision of the banking sector, requiring banks to maintain leverage ratios and meet certain minimum capital requirements. Basel 4 is expected to come into force in 2027.

Capital relief trade (CRT): See also: capital protect transaction; capital release transaction; concentration risk management deal; regulatory capital transaction; risk partnership deal; risk sharing transaction; significant risk transfer.

Capital Requirements Regulation/Directive (CRD IV): Created by the European Commission to implement Basel Committee regulatory standards into European law. Includes the Capital Requirements Directive (CRD) and Capital Requirements Regulation (CRR). CRD IV goes further than Basel 3 by including additional capital buffers, remuneration and transparency. CRD V is expected to be finalised in 2019.

Credit default swap (CDS): Contracts which pay out if a bond defaults. Most top-tier banks now report the use of credit derivatives for regulatory capital relief.

Credit-linked note (CLN): A security with an embedded CDS through which an issuer can transfer credit risk on specified loans to investors. CLNs are created through an SPV or trust.

European Banking Authority (EBA): Independent EU authority responsible for prudential regulation and supervision of European banking sector, established 2011. Tasked with contributing to creation of the European single rulebook in banking throughout the EU. Also promotes convergence of supervisory practices.

European Central Bank (ECB): The central bank for the euro currency, established in 1998. The Single Supervisory Mechanism (SSM) was implemented in November 2014 and promotes the single rulebook approach to the prudential supervision of credit institutions in order to enhance the robustness of the euro-area banking system. Significant risk transfer transactions fall under the jurisdiction of National Competent Authorities.

European Investment Fund (EIF): Specialist financing arm of the European Investment Bank (EIB). Designs, promotes and implements equity and debt financial instruments that specifically target SMEs. Guarantees projects so that investors can apply a zero-risk weighting.

Financial guarantee: A financial guarantee contract is a promise to underwrite another company's financial obligation if that company cannot meet its obligation. See also the role of the EIF.

International Association of Credit Portfolio Managers (IACPM): Industry association which furthers the practice of credit exposure management. Membership is open to all financial institutions that manage portfolios of corporate loans, bonds or similar credit sensitive financial instruments.

International Financial Reporting Standards (IFRS): Globally accepted financial reporting standards monitored by the International Accounting Standards Board (IASB). CRTs are significantly affected by IFRS 9. IFRS 9 replaced the previous IAS 39.

Junior tranche: The lowest tranche in a security and therefore the first to absorb any losses. In return for higher risk, investors are paid the highest coupon.

Mezzanine tranche: Between the junior and senior tranches in the capital structure.

Risk-weighted asset (RWA): Risk weighting is used to determine the minimum amount of capital a bank must hold to reduce the risk of insolvency, based on a risk assessment. Banks must group assets by risk category to avoid a repeat of the global financial crisis, caused in part by extensive holdings of US subprime mortgages.

Senior tranche: Those tranches which are highest in the capital structure and last to absorb losses. In return for lower risk, investors are paid lower coupons.

SME loans: Loans to small and medium-sized enterprises, which are widely considered to be underserved. SME and corporate loan CRTs are most common.

Special purpose vehicle (SPV): A bankruptcy-remote entity established to isolate assets from the credit risk of an originator or seller. For a synthetic securitisation, the originator buys CDS protection from the SPV, which the SPV funds by selling notes to investors who then assume the risk of the portfolio, equal to the notional amount of the CDS.

Synthetic securitisation: A securitisation structure whereby the credit risk of a pool of exposures is transferred via funded (eg; CLNs) or unfunded (eg; CDS) credit derivatives or guarantees which hedge the credit risk of the underlying portfolio. Differs from true sale (or "cash") securitisation in which assets themselves are sold to an SPV.

UK Prudential Regulation Authority (PRA): Financial services regulatory body in the UK which supervises banks and major investment firms, among others, established in 2013. It sets standards and supervises financial institutions at the level of the individual firm. It is the local regulator for CRTs issued in the UK, while the ECB oversees Europe.

US GSE CRT: Credit risk transfer securities issued by the US Federal National Mortgage Association (Fannie Mae) and US Federal Home Loan Mortgage Corporation (Freddie Mac). Created in 2013 to transfer risk associated with credit losses within pools of conventional residential mortgage loans. Different to agency RMBS as the GSEs do not guarantee full repayment of the original principal balance.



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