KPMG

Securitisation & Balance Sheet Optimisation

KPMG in the UK

—

May 2024

Contents

Introduction

Securitisation has been a core balance sheet management tool for banks and other institutions for decades, whether as a means of asset sale or for funding. In Europe, the synthetic risk transfer market is increasingly accepted as of equivalent importance for bank capital generation and risk mitigation as a covered bond program is for bank funding. The use of SRT is now also achieving more acceptance in the US following the Fed's amendment of Reg Q at the end of 2023. In due course we anticipate banks will need to use a full toolbox of securitisation techniques to generate risk mitigating, funding, and capital generating options fluently according to need.

With the Fed's amendment to Reg Q at the end of 2023, and the entrance of several significant US Banks into the risk transfer market, synthetic securitisation has been fully rehabilitated as a core tool rather than a niche technique for a predominantly European private market. Jurisdictions like Australia and Norway, whose regulators still reject these structures are now firmly outliers.

With the adoption of Basel 3.1/4 we believe banks will need to become increasingly fluent in using all forms of securitisation to manage funding and capital through the cycle, transfer risk, optimise financial resources, and increase return on equity via increasing balance sheet velocity.

The Basel rule changes require a more centralised and dynamic management of those resources given the interaction of the output floor with advanced models. Synthetic and cash techniques will be required both to offset capital increases, and to manage capital with the same level of strategic care as bank's are accustomed to use for their covered bond programs for bank funding.

In Europe, we anticipate the regulatory tone improving further with discussions focusing around removing frictions in the market such as the current discussions around easing the ESMA reporting requirements. This reflects a belatedly recognition by the EU that the European markets and banks do not have the fiscal strength in the current construct to help with the two major fiscal challenges of the green transition and re-armament in the timeframes required.

Whilst securitisation techniques have always developed in and for banks, we feel that similar techniques can also provide significant value to other regulated institutions such as life insurance companies. For example, some UK life insurance companies have used securitisation techniques to provide rated levels of certainty of cash flows to allow theoretically attractive asset classes such as equity release mortgages, whose mortality and morbidity characteristics align with their liabilities, to achieve efficient capital treatment under the Solvency II matching regime. This paper's contention is that these techniques will, and should, have wider applications for such counterparties and indeed may become more relevant post the reform of Solvency II, the loosening of the requirement for 'fixity' in matching cashflows for efficient capital treatment.

This paper is designed to capture the current state of the market, covering themes, trends and the high-level impact of the current regulatory shifts. KPMG's team is involved in each stage of these processes, and is happy to assist with any questions or projects in these areas.

Alec Innes – Partner

> "The synthetic risk transfer market is increasingly accepted as of equivalent importance for bank capital generation and risk mitigation as a covered bond program is for bank funding."

> "These techniques can also provide significant value to other regulated institutions such as life insurance companies."

01

Banks:

Securitisation Issuance Market Review

Securitisation Trends & Issuance Review

Market update

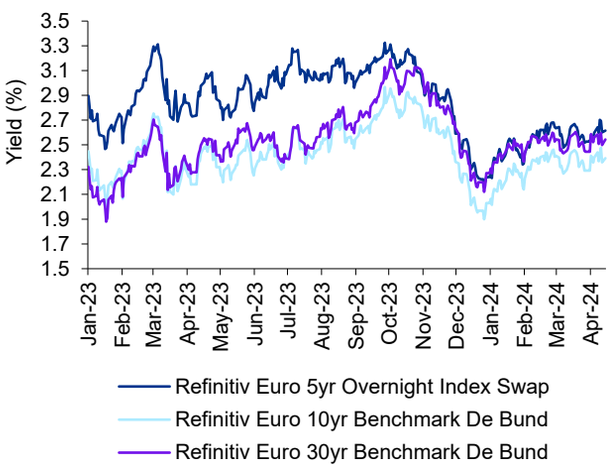
Executive Summary

- The rise in euro and sterling rates was relentless through 2023, before peaking and remaining static from Q3.
- Both EU and UK deal volumes were up from 2022.
- Securitisation bond yields rose during summer 2023 – driven by widening credit spreads which subsequently tightened through Q3/Q4.
- Performance in prime RMBS was mixed across Europe, with arrears ticking up in UK Buy-to-let ('BTL') over 2023.

Benchmark rates

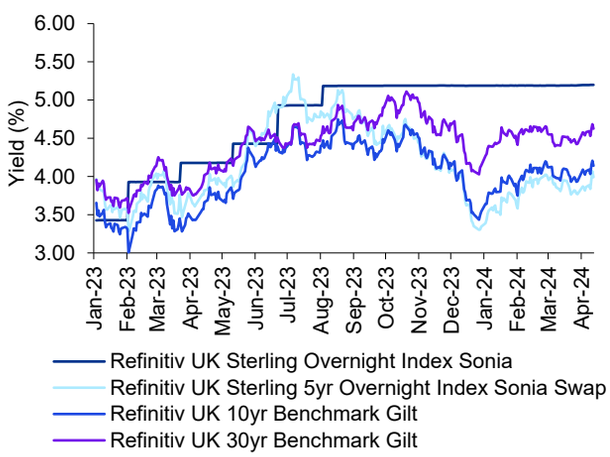
2023 saw relentless rises in rates in H1 to combat inflation which had peaked in late 2022. As inflation dropped across Europe over the 12-month period to December 2023, government bond yields dropped through H2 before rising again from January 2024 but staying below the current cost of borrowing.

Chart 1a - Euro benchmarks



Source: Refinitiv

Chart 1b – Sterling benchmarks

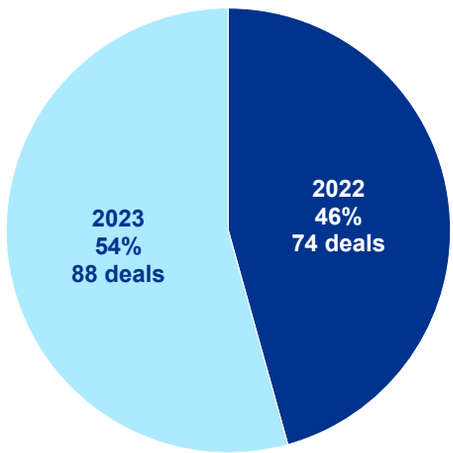


Source: Refinitiv

Market activity

In EU ABS and RMBS markets, despite inflationary pressure and the high rate environment, deal volumes remained resilient with overall issuance up vs 2022.

Chart 2a – split of total EU ABS/RMBS 2022-2023 deal volume by year

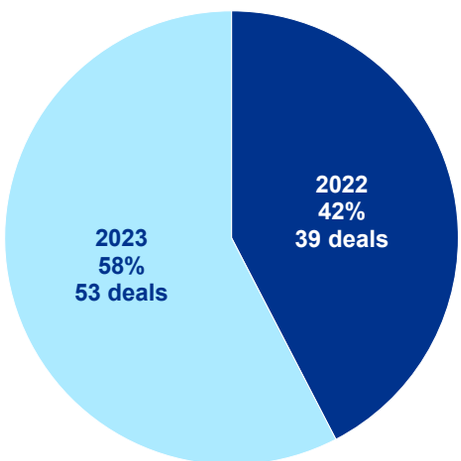


Total 2022 / 23 EU deals: 162

Source: Debtwire

The UK showed a similar resilience and increase in deal volume.

Chart 2b – split of total UK ABS/RMBS 2021-2022 deal volume by year



Total 2022 / 23 UK deals: 92

Source: Debtwire

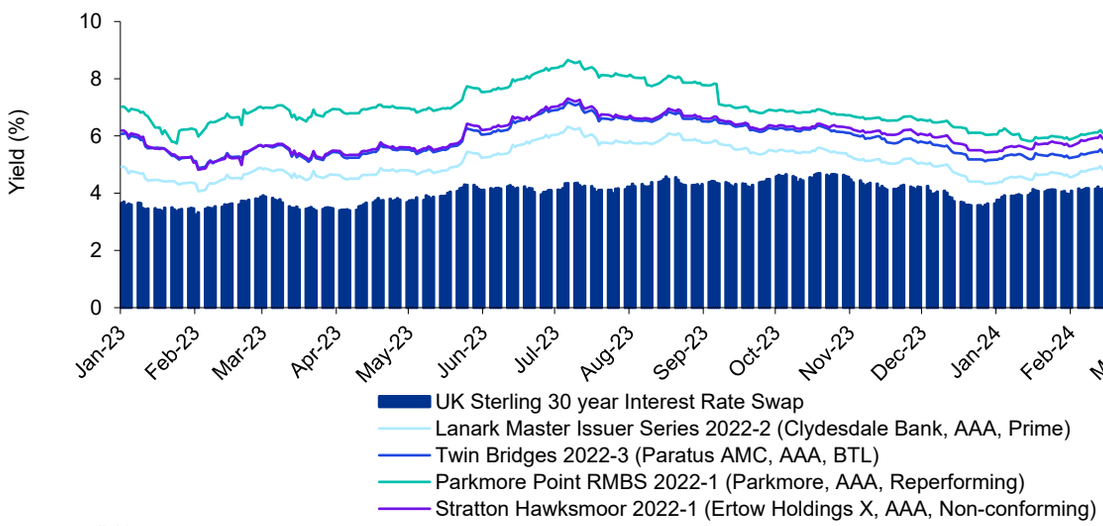
Securitisation Trends & Issuance Review (cont.)

Bond yields

Following a significant widening in credit spreads during the summer which pushed bond yields on securitisation tranches up, credit spreads tightened over Q3/Q4 pulling yields back down. This impact was greater in the UK than the rest of Europe.

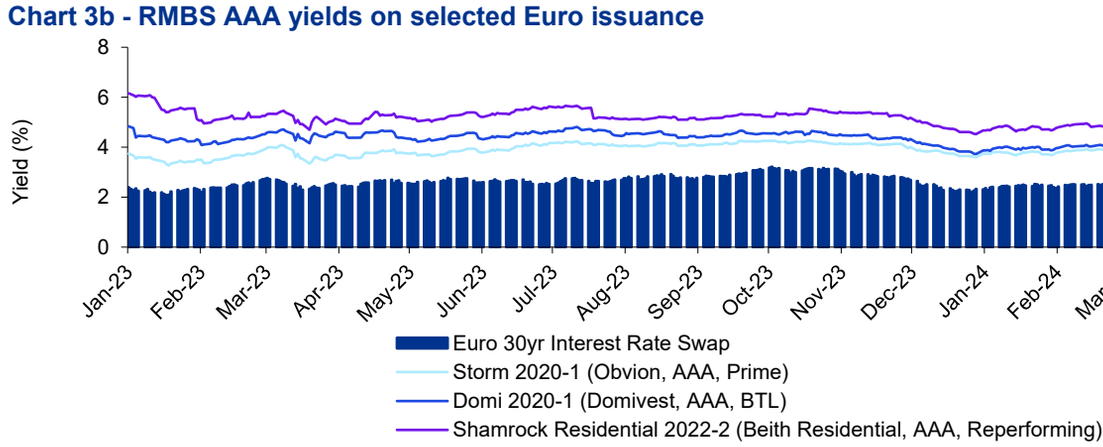
Average AAA securitisation issuance spreads tightened steadily over 2023, reaching the same level (~47 bps) as in Q2 2022.

Chart 3a - RMBS AAA yields on selected UK issuance



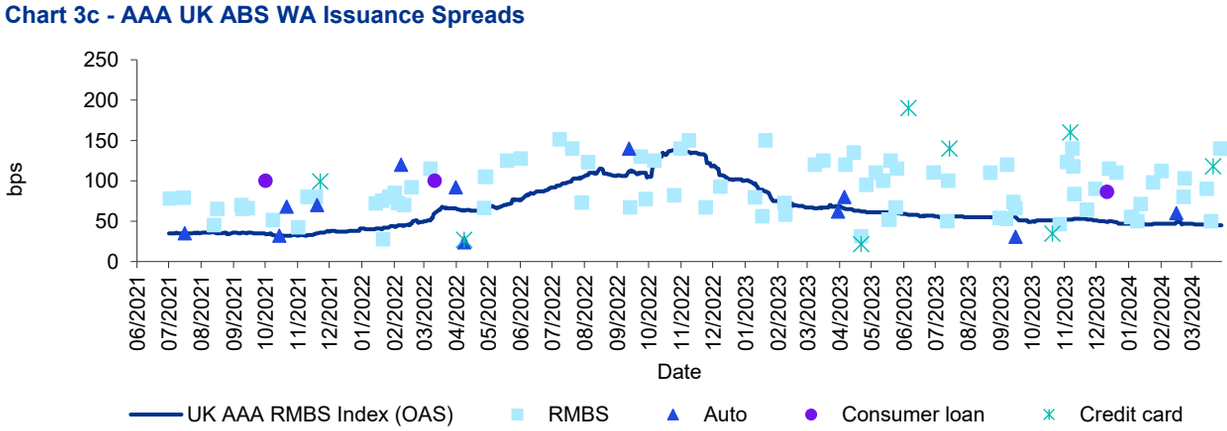
Source: Refinitiv

Chart 3b - RMBS AAA yields on selected Euro issuance



Source: Refinitiv

Chart 3c - AAA UK ABS WA Issuance Spreads



Source: Bloomberg and Debtwire

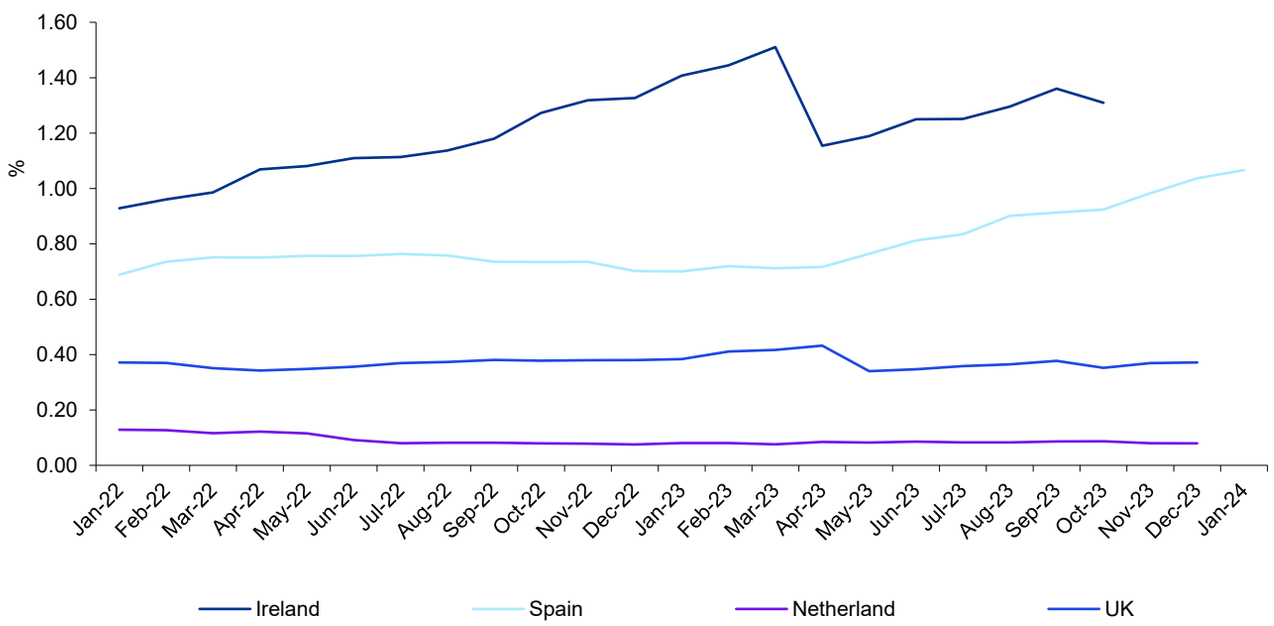
Securitisation Trends & Issuance Review (cont.)

RMBS performance

Across Europe, prime RMBS arrears in 2023 have increased significantly in Spain, were volatile in Ireland and remained flat in the UK and Netherlands.

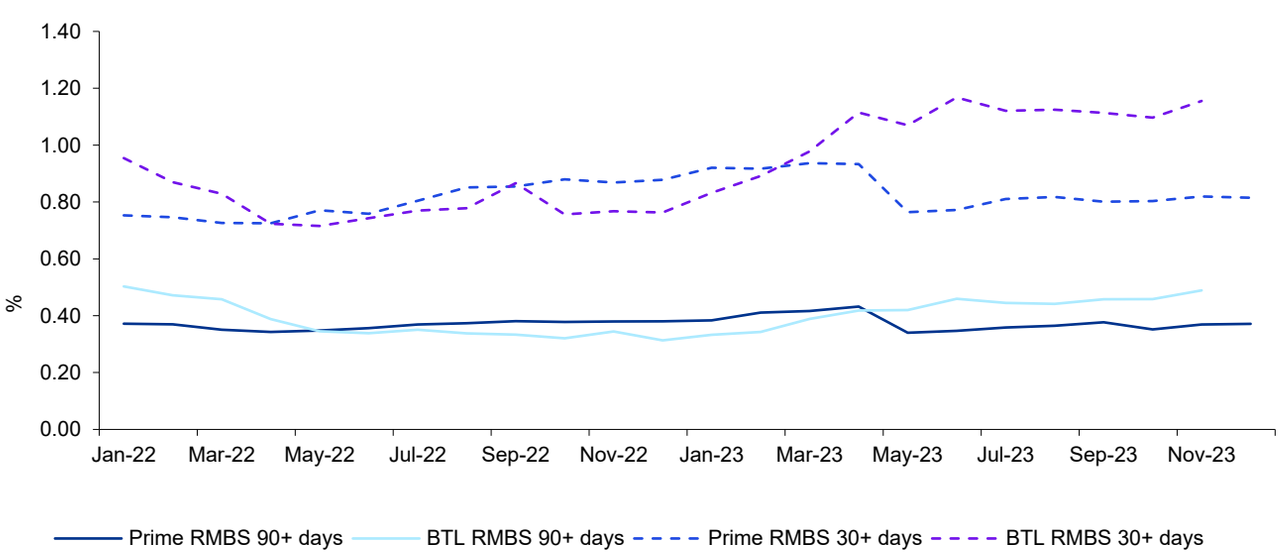
In the UK, whilst prime arrears remained flat, arrears increased across BTL assets throughout 2023.

Chart 4a - Europe Prime RMBS 90+days arrears for Moody's rated securitisation



Source: Moody's Investor Services

Chart 4b - UK RMBS - 30+ and 90+ days arrears for Moody's-rated securitisations



Source: Moody's Investor Services

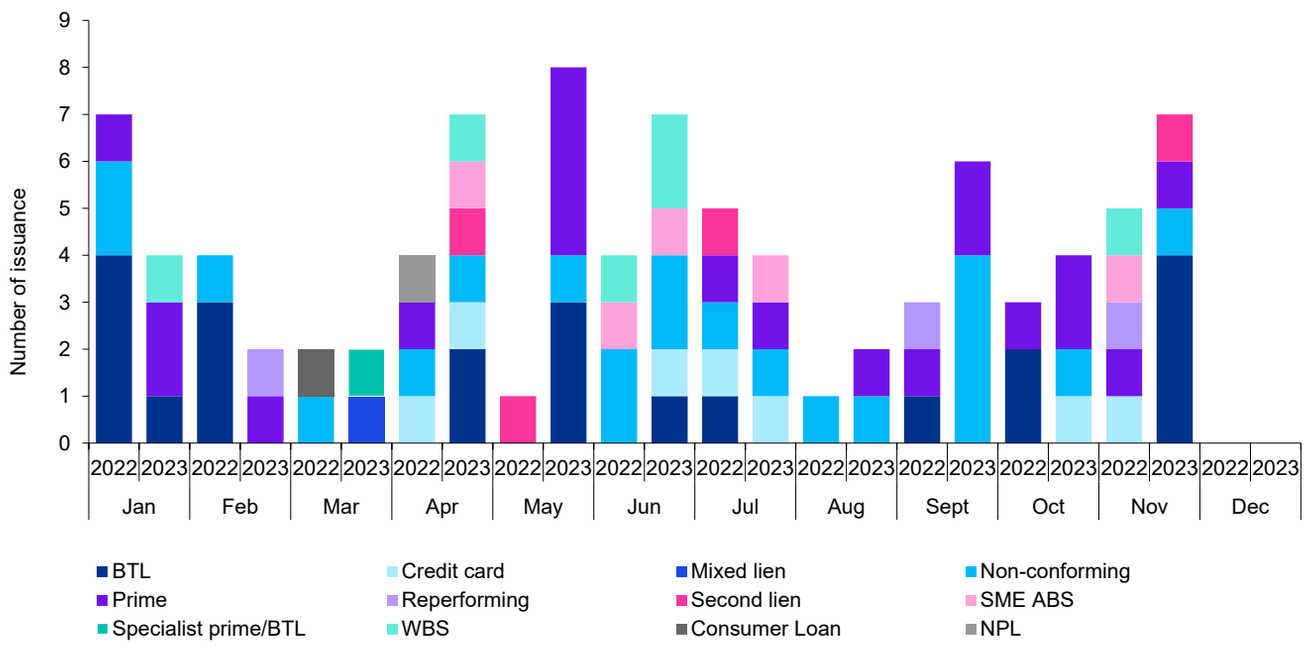
Securitisation Trends & Issuance Review (cont.)

UK bank & non-bank market issuance

Out of the 53 UK ABS and RMBS deals completed in 2023, 79% were mortgage-backed

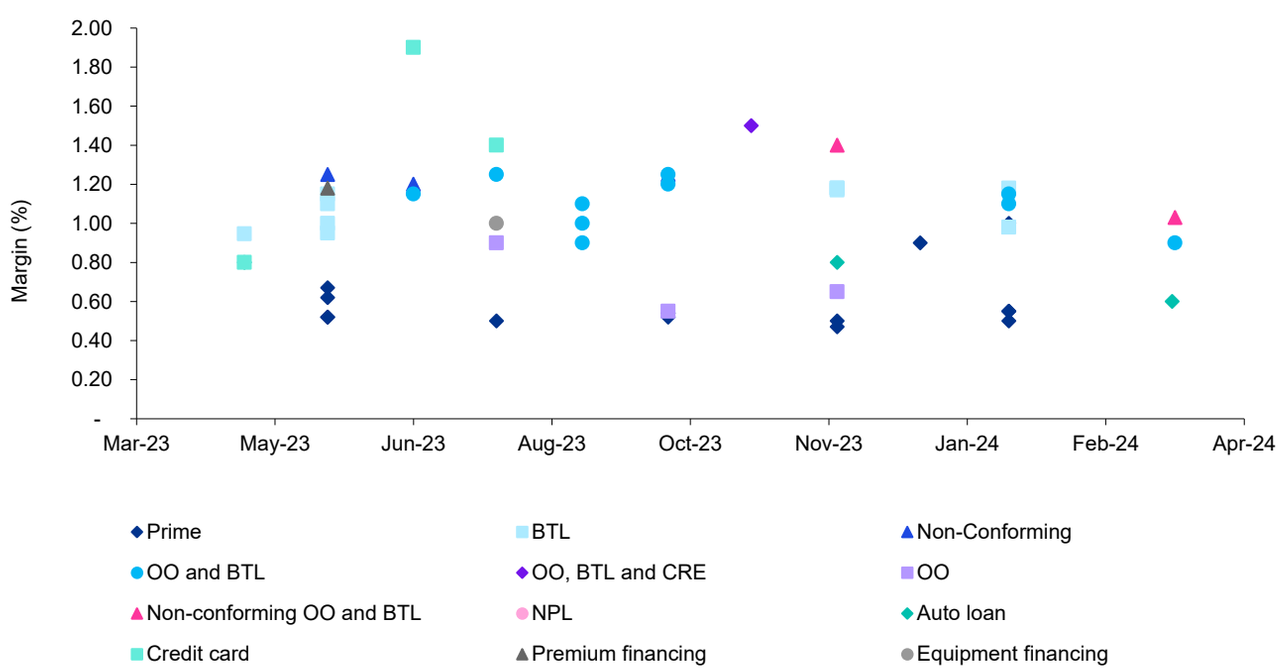
- 33% were prime mortgages (2022: 19%)
- 26% were BTL (2022: 40%)
- 28% were non-conforming mortgages (2022: 28%)

Chart 5a – UK bank and non-bank public market deals by asset classes



Source: Debtwire

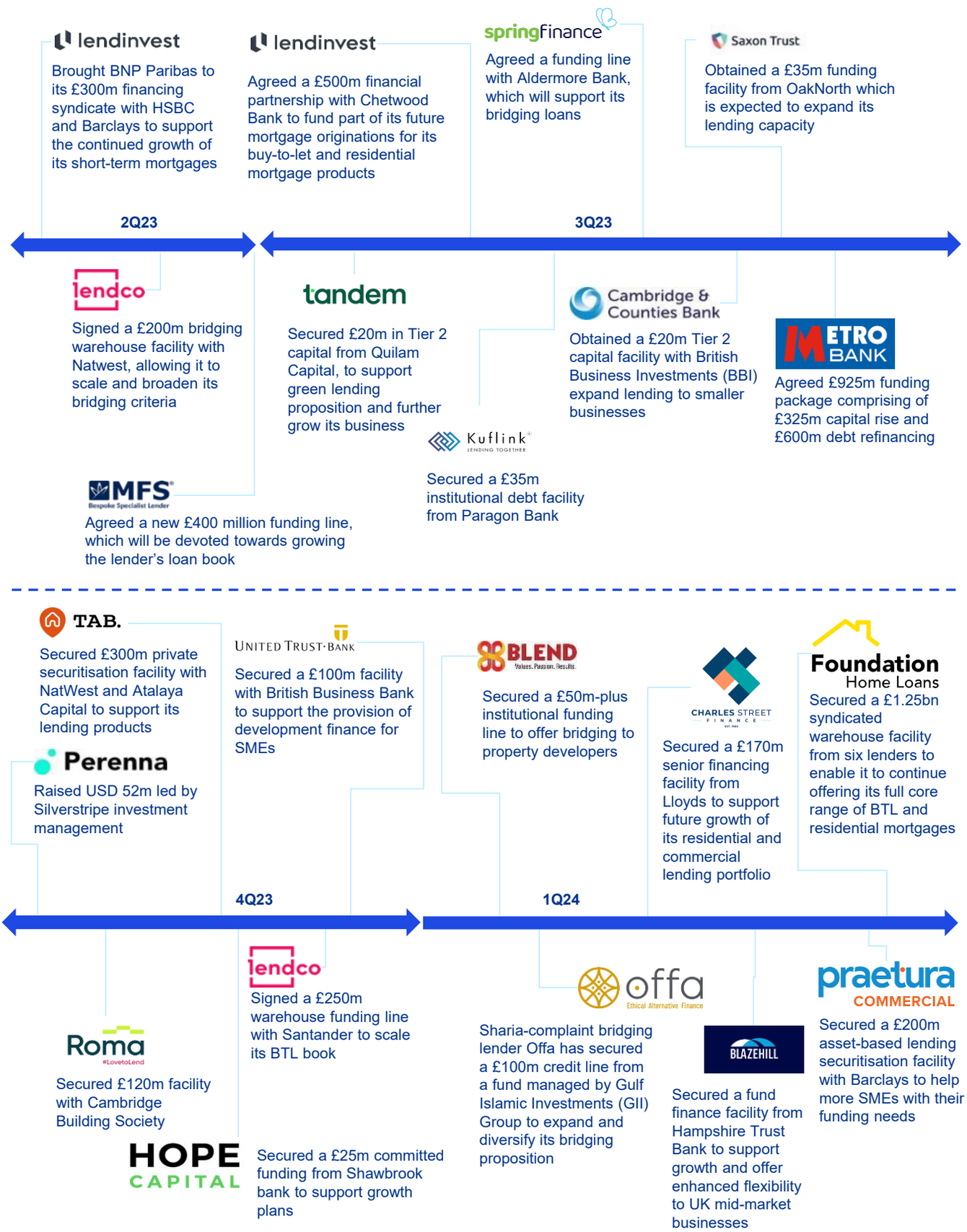
Chart 5b - Recent UK bank and non-bank public market AAA margin



Source: Moody's Investor Services, Fitch, S&P Global

Securitisation Trends & Issuance Review (cont.)

Representative private debt transactions – Bank & Non-Bank Financial Institutions



SRT Trends & Issuance Review

Summary

- 2023 was a year of record issuance in the SRT market, mostly driven by Western Europe but also the opening of new frontier markets in the US, Canada and CEE.
- We anticipate that the market will continue to see new entrants, be it new investors chasing relative value, new bank originators or new service providers.
- Linked to the point above, we observe a considerable spread tightening in the SRT market, both in Europe or across the pond.

Review of recent issuance and trends

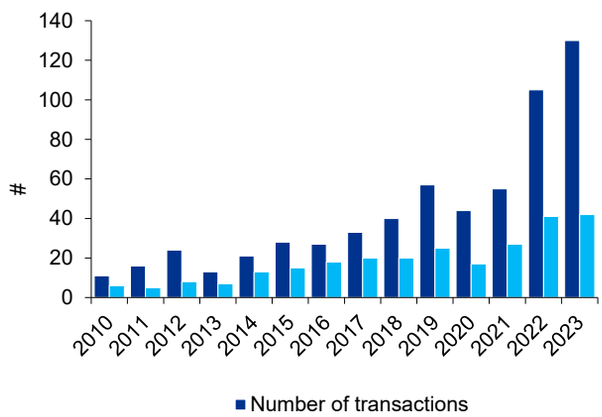
Following a strong 2022 year of issuance, which was a record year at the time, 2023 saw an even larger number of transaction come to market. Given the private nature of the SRT market, not all SRT issuance may be reported - and our numbers rely on multiple sources that we cross reference - it is estimated that issuance reached USD 24bn equivalent in 2023 over 130 deals (source: RTRA).

As of Q1 2024, there were 20 SRT deals issued overall within that period, with 2 being from US banks.

Large corporate loans remain the dominant asset class with around 60% issuance (measured in terms of total tranche notional amount), closely followed by SME (c. 14%). Both consumer loans and capital call facilities form a substantial part of the market at 9% and 10% respectively.

With regards to issuance spreads, we have observed that the tightening observed in the SRT market is sharper than the tightening observed on other securitised asset classes (e.g. public ABS or rated broadly syndicated CLOs). This is unusual for the SRT market where spreads have historically been less volatile than other asset classes such as CLOs. This being said, by virtue of being private, often bilaterally negotiated transactions, part of the spread tightening observe may also be due to positive portfolio selection amongst other transaction features.

Chart 6a Estimated number of SRT transactions and originator per year

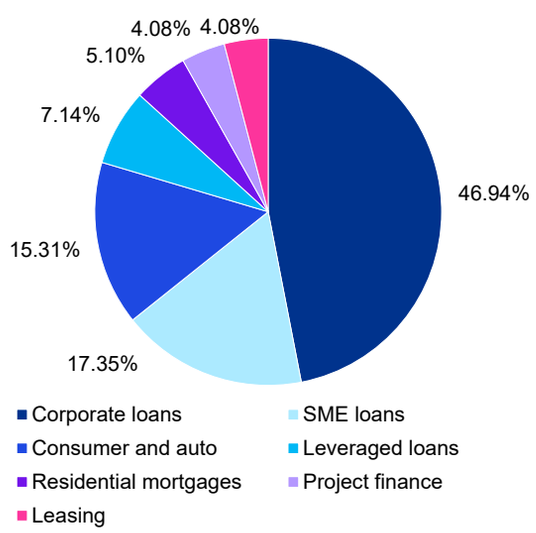


Source: M&G, Citi, sci, RTRA

In terms of geography, the market continues to be mostly dominated by European issuance as it has been historically. This being said 2023 saw record issuance from Canada, with now all 'big 5' Canadian banks issuing SRT (i.e. Toronto Dominion, CIBC, BMO, Scotiabank, and RBC are now all issuing transactions whereas before BMO was the only active issuer). In addition, we understand other new markets are also coming on stream with growing issuance in Eastern Europe and other new markets looking seriously at the product such as South Africa and Israel.

A lot of issuance from the US market normally originates from agencies but the regulator's stance has positively improved which has helped issuance pick up from commercial banks (see US section).

Chart 6b Underlying pool size at inception by asset class and deal count (2023-2024)



Source: RTRA

SRT Trends & Issuance Review (cont.)

Expanding market and New Players

Whilst the significant growth in the SRT market is partly due to more deals from familiar issuers, an important component of growth appears to be driven by new entrants. Its not just more deals, but a wider population.

- Part of the widening pool of issuers is geographical – as interest picks up in SRT in North America, driven by Basel 3 changes and other factors, we are observing the more established and larger banks in these regions come to market as first-time issuers.
- But what we are also seeing is a widening pool in the size and complexity of banks that are using SRT as a mechanism to manage and optimise their capital. In the UK for instance, we are seeing mid-sized (so-called 'Challenger Banks') actively explore SRT and execute their first deals. This trend looks set to continue as Basel 3.1 adversely affects key asset classes such as SME, asset finance and buy-to-let.
- And with an expanding population we are also seeing an expanding range of structures being considered. Whilst the SRT market is still predominantly focussed on synthetic deals, we have observed a number of cash SRT transactions being explored (e.g. as a mechanism to gain both funding and capital benefits). With an expanding and more variegated market, and a new regulatory framework just around the corner, we should expect to see more variation and innovation on the standard SRT structures with which we are familiar.
- Still on the issuer size, our White Paper from last year cited the use of SRT technology amongst standardised banks as one of the growing trends. Indeed, the EU's implementation of the new Securitisation Regulation in 2019 effectively allows standardised banks to use a simplified version of the relevant risk weight approach and enables them to escape the more costly external rated option. Smaller regional banks such as BTV, Cassa di Risparmio di Bolzano and BAWAG were amongst those new issuers according to data by RTRA.
- The SRT market has seen new relative value investor enter the market, notably in 2023, which has driven demand up and spread down significantly. We view part of this demand as relative-value driven and opportunistic in nature. We therefore anticipate that part of this demand may dissipate in the future as yields go down.

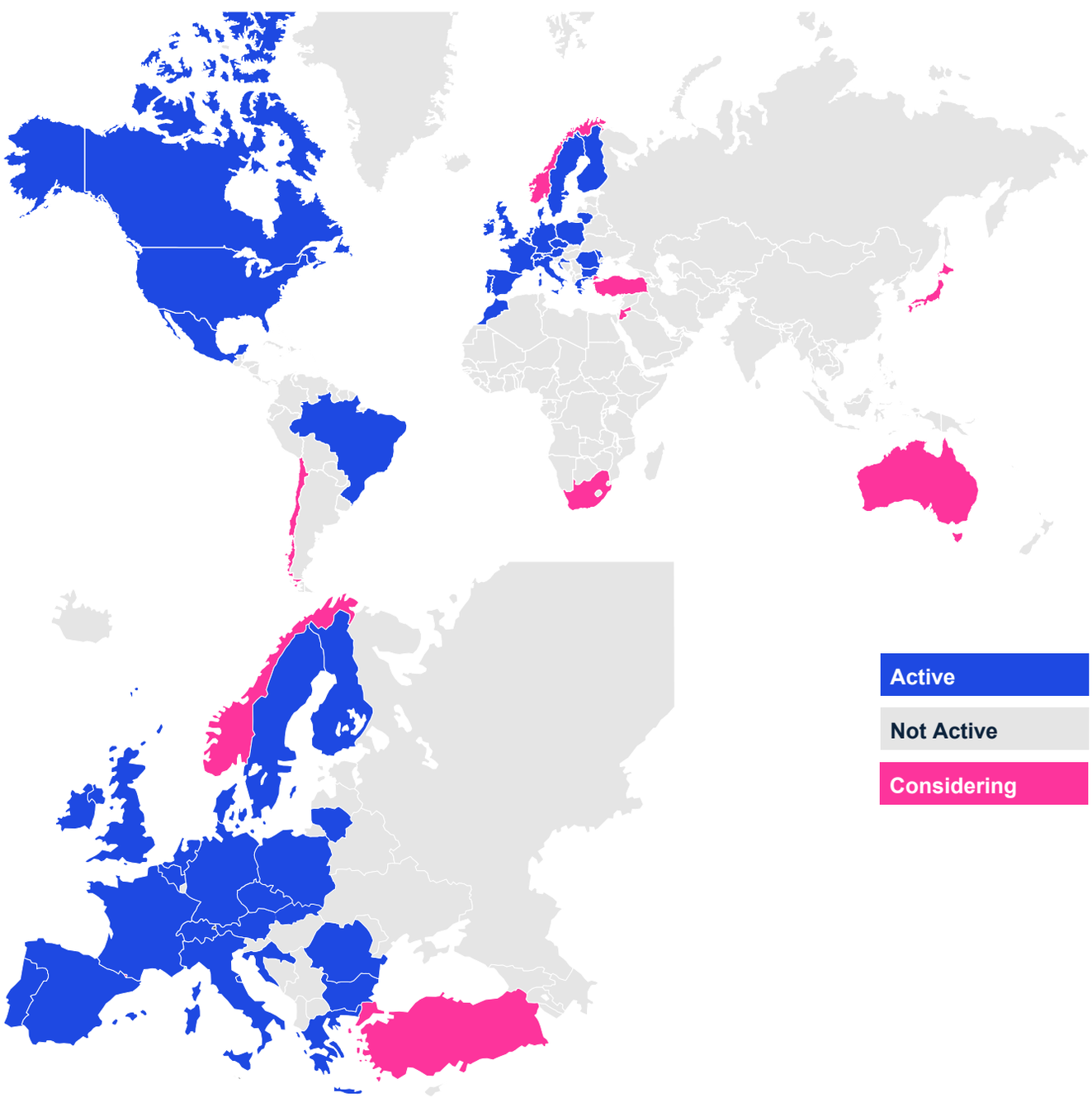
SRT Trends & Issuance Review (cont.)

Geography update

As stated previously the SRT market remains more developed in Europe with over 60% of issuance volumes in 2023 as measured by tranche notional. This being said, this share is lower than historically as Europe and UK combined used to represent c. 80% of market issuance up until 2021.

Some geographies within Europe such as Poland have grown considerably over the last couple of years (with 7 and 5 transactions in 2022 and 2023 respectively).

Also, there has been talks of transaction being considered in Latin America, as per the map below.



Source: KPMG

US SRT update

US SRT market is finally expanding. Will the growth continue?

The uptick in issuance during the last quarter of 2023 supplied an early indicator of the growing momentum in the US CRT/SRT market (US market participants tend to use "CRT" while '"SRT" is more prevalent in Europe. In this paper we use both interchangeably). Partial clarity from the Fed's FAQ helped, although transactions are being driven out of necessity or at least a preference for shoring up capital ratios without raising equity capital more directly.

Even as the market awaits a re-proposal of the Basel III "end game" regulations, large banks are hoping for the best and preparing for the worst. Freeing capital using SRT will need to be balanced with the potential recalibration of the p-factor which, in the original proposal, would essentially double tranche thicknesses for the same relief. Europe has been able to secure a reduced p-factor, but US participants may not be able to count on the same flexibility from its regulators.

The FAQ effectively specified an additional level of review for direct-issued CLNs structures. Investors also began to require cash collateral to secure the CLNs to eliminate issuer risk. Although direct-issue CLNs are favored by first-time issuers due to their relative simplicity and lower cost, as a result of the FAQ's requirement for a reservation of authority for direct-issued CLN structures in September last year, alternative SPV and CDS structures have been implemented, although each carry operational and accounting considerations.

Due to these considerations and others, the SPV and CDS structures may not be optimal for the mid-size banks. Even though this group will not be affected by Basel end game provisions, momentum is clearly building. The challenge will be to prove to regulators that they fully understand the trade-offs between credit risk and operational risk. Unfamiliarity with the operational details of CRT is delaying growth in this market segment as mid-size institutions develop the required internal apparatus and push approval through their change management processes.

On the other side of the aisle, investors are primed to consume deals in any of the various forms and demand is healthy. Pricing and structure are for now are generally investor friendly. Corporate loans, prime auto, funds financing and are priced in the SOFR + 5-7% range. Other asset classes are priced wider but would still be based on solid underwriting and underlying credit fundamentals.

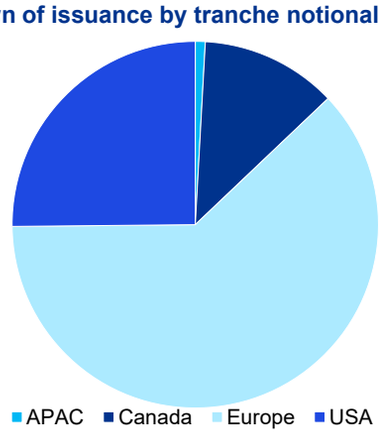
Federal Reserve FAQ

On September 28th, 2023, the Federal Reserve issued a short statement clarifying which direct CLN transactions would not require a reservation of authority (i.e., CLN issuance through SPVs). In contrast, bank issued direct CLNs, would still be subject to prior review by the Fed. Overall, the added clarity regarding SPV structures indicated regulatory recognition of the growing adoption of SRT techniques in the US market.

The capital treatment for SRT transactions is governed principally by the capital rules in "Reg Q" (Capital Adequacy of Bank Holding Companies, Savings and Loan Holding Companies, and State Member Banks, 12 CFR Part 217) and by various related interpretive Supervisory Letters. The Office of the Comptroller of the Currency also provides examination expectations around the internal governance and controls on general securitisation activity and on the overall risk management and business principles that an originating institution must be aware of.

Under Reg Q, a transaction may permit a significant risk transfer if, among other requirements, it qualifies as a "synthetic securitisation", that meets certain operational criteria. With increased issuance and transaction performance experience, we expect greater regulatory and market acceptance over time.

Breakdown of issuance by tranche notional in 2023



Source: RTRA

02

Insurance:

A recap of recent trends and the potential opportunity arising from Solvency UK

Insurance Securitisation

A recap of recent trends (see our 2023 paper for more detail):

ABS remains an asset class only accessible to the most sophisticated insurers. Solvency II introduced heavy Standard Formula capital charges for investment in securitisation save for STS Senior tranches. Given the small market for STS Senior tranches there is little incentive for the average insurer to build up the expertise to invest. Sophisticated insurers, just like banks, can develop their own internal models approved by the regulator and therefore are not bound by Standard Formula. These insurers have the flexibility to produce their own rating assessments where a rating by an External Credit Assessment Institution ('ECAI') is not available and can calibrate their own capital requirements.

In the UK, annuity writers utilise the Solvency II Matching Adjustment ('MA') regime which gives them favourable capital treatment when they back their liabilities with investment grade assets that have a fixed cash flow profile. These insurers tend to have an approved Internal Model and utilise the securitisation of granular mortgage portfolios as a means to create rated notes with the fixed cash flow profile necessary for MA. Insurers have the flexibility to hold all tranches of the securitisation with the MA eligible notes allocated to their MA portfolios and the non-eligible notes (often the junior note which absorbs timing and credit risk), allocated to their shareholder funds.

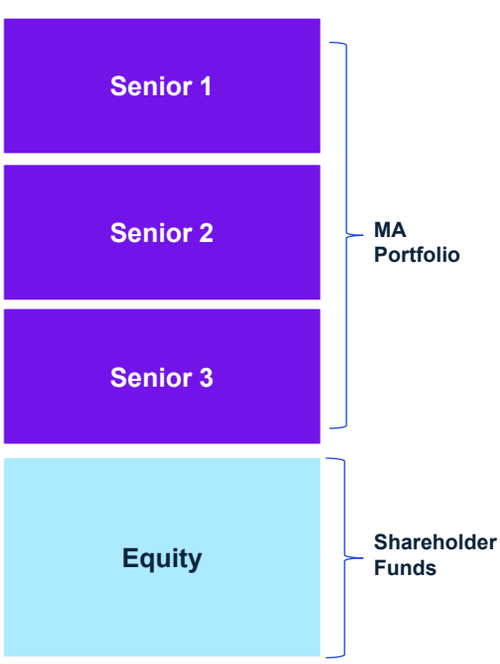
The most common asset class to have been securitised in this way has been Equity Release Mortgages (ERM). They have the long-dated cash flow profile that makes them a suitable asset to back long dated annuity liabilities, but at the granular level are subject to cash flow timing risk and are unrated. Other asset classes that have been securitised to meet MA requirements include Dutch Mortgage and Agricultural Mortgages.

In recent years, asset managers have also used securitisation to create MA eligible senior notes for insurers and placed non-MA eligible notes with third party investors. This would include the equity as well as sometimes rated senior companion notes that are subject to cash flow timing risk. This improves the efficiency of the securitisation by reducing the size of the junior note. Examples of assets that have been securitised in this way include Equity Release Mortgages but also Student Loans (ICSL) and Irish residential mortgages (Dublin Bay).

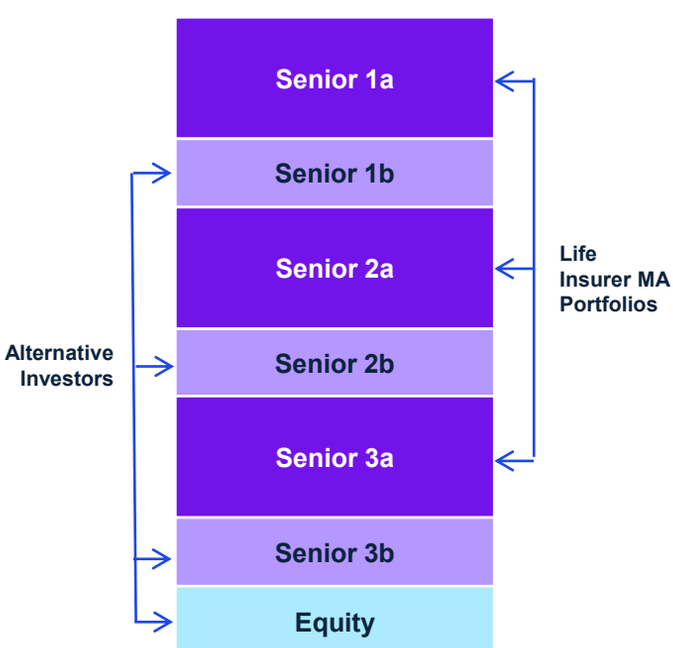
In last year's paper we described how securitisation could be employed by insurers to cede credit risk to the market in a similar fashion to that employed by Banks. These techniques have not been used thus far but as insurers' credit portfolios grow and credit risk becomes an increasingly peak risk we expect there will be interest in developing these techniques to manage this risk.

The 2 current securitisation models used by UK annuity writers:

Consolidated In-house Securitisation



Deconsolidated 3rd Party Securitisation



Insurance Securitisation (cont.)

Solvency UK offers new opportunities:

What is changing?

A number of changes to the current MA rules have been introduced as part of SII Reform and the introduction of Solvency UK. For more detail see the next chapter on Regulatory Developments.

Two of the main changes that are particularly relevant to investment in securitisation are:

- the introduction of a new segment within MA portfolios for assets with Highly Predictable ('HP') cash flows, and
- the removal of the BBB cliff whereby the MA on sub-IG assets was restricted to no more than the MA on investment grade assets but with significantly higher capital requirements.

The MA contribution from assets with HP cash flows is limited to no more than 10% of the overall MA benefit. The MA is broadly the yield over risk free less a haircut for risk, the "Fundamental Spread" (FS), and the capital benefit from using the MA (the day 1 reduction in Technical Provisions) is broadly the MA multiplied by the asset duration and market value.

The 10% limit implies a similar limit on the proportion of assets with HP cash flows if they are of similar duration to the entire portfolio. However, if they are of shorter than average duration it may be possible to increase the proportion above 10%.

The PRA expects insurers to calculate an FS add-on to reflect the timing uncertainty from assets with HP cash flows of at least 10 bps to reflect the costs of rebalancing portfolios if cash flows on those assets emerge differently to what is expected.

Firms will need to get approval from the regulator before investing in these assets. This process usually takes at least 6 months, though the PRA is committed to speeding things up for more straightforward applications.

Impact on existing in-house securitisations

The ability to invest in assets with HP cash flows, as well as the removal of the BBB cliff, means insurers will be motivated to include more of their securitised ERM portfolios within the MAP. This may lead to restructuring of existing securitisations to include a sub-investment grade piece and perhaps the creation of some senior notes that absorb timing risk in addition to the fixed notes (see diagram on right).

This may be where insurers start to fill their allocation to assets with HP cash flows since they already hold the underlying, and may be able to improve the efficiency of the securitisation by reducing the size of the junior note held in their shareholder funds.

Insurers will still need to apply for MA permission to invest in these assets but the PRA has committed to improving the speed of that process.

Securitisations that may now be in scope

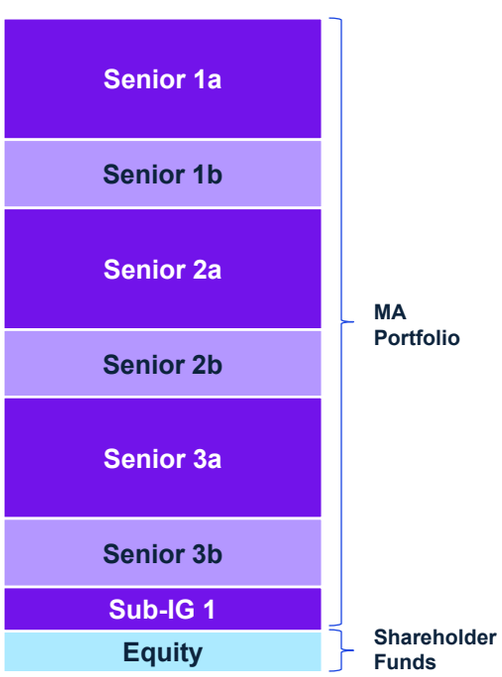
Insurers active in the UK Pension Risk Transfer market all use an Internal Model for determining their capital requirements. This can result in more reasonable capital charges for securitisation positions than under Standard Formula. The main reason these insurers do not invest more widely in securitisation is that few offer the fixed cash flow profile necessary for MA eligibility. The introduction of a segment of assets with HP cash flows may allow insurers to invest in a wider range of ABS such as RMBS and CLOs.

The need to increase the FS haircut to reflect timing uncertainty may well cancel out any increase in MA, but earning the additional expected return over the long term should still be economically attractive.

CLOs are typically short dated and might be a good fit for matching some shorter duration annuity cash flows. Since they are short-dated they may make a relatively small contribution to the overall 10% limit.

The government wants to encourage investment in UK infrastructure as well as green assets. Securitisations that give insurers exposure to these asset classes will be particularly welcome. However, as for any new asset class, it may take some time before insurers can start to invest due to the need to develop their internal models as well as the time to obtain regulatory permission.

Potential Future In-house Securitisation



03

Regulatory Developments

Latest Regulatory Developments

Regulatory environment

In our paper last year we set out three regulatory themes as it pertained to the SRT market:

- A clearer set of standards and expectations from regulators, particularly in the UK and EU (e.g. through further definition on significant risk transfer);
- A more receptive attitude from regulators leading to the creation of incentives for securitisation (through, for example, the Simple Transparent and Standardised regime and rules for Non-Performing Loan securitisations); and
- An increased need for securitisations as a balance sheet management tool deriving from the changes in Basel IV – both to risk weights in specific asset classes and due to the 'output floor'

These continue to be the key regulatory trends that shape the SRT securitisation market. The PRA's discussion paper (DP 3/23) on capital requirements and the p-factor under SEC-SA shows a continued willingness to clarify regulatory standards around the market. Meanwhile, the expected final rules of Basel IV in the EU and UK this year, will give final clarity to the forthcoming capital framework that has been in development since 2017.

The significant growth we have seen and are continuing to see more broadly in the SRT and private credit market are therefore not just consistent with but in no small way driven by the continuing developments in the regulatory framework. And as we have set out in other KPMG publications (Basel 3.1 Balance Sheet Optimisation), we see SRT as being a key tool that banks will need to use to manage their balance sheets effectively particularly when Basel IV comes into force from 2025 suggesting that the SRT market should remain vibrant for some years to come.

Specific SRT Regulatory Points

The EBA clarified its proposed regulatory treatment of synthetic excess spread ('SES') in April 2023. It is now for the trilogue (European Parliament, the Council of the European Union and the European Commission) to discuss the proposal and for the European Commission to pass it into law.

The EBA proposal includes a grandfathering period as well as no capitalisation of synthetic excess spread for the life of a deal if certain conditions are met. Indeed, the SES position must be less than the 1-year expected loss on the portfolio and the originator needs to demonstrate that the pool income (including funding and hedging costs) is at least equal to the SES.

Last year, the proposed application of the Basel IV Output floor caused some concerns amongst market participants, notably its possible impact on corporate and SME issuance.

Thankfully, the regulator took a pragmatic approach and proposed a halving of the regulatory p-factor (non-neutrality factor) for the purpose of calculating the Output floor (therefore only relevant to IRB banks to which the floor applies).

Latest Regulatory Developments (cont.)

UK Solvency II Reform (Solvency UK)

The UK is undergoing a major overhaul of the Solvency II regime, introduced in 2016 when the UK was still part of the EU.

Towards the end of 2022, HM Treasury published its decision on a number of important aspects of the new regime which had been hotly debated by industry and the PRA over a number of years. These changes were designed to encourage long-term investment in UK productive assets and to improve the competitiveness of the UK insurance industry while preserving policyholder security.

Reflecting HMT's decision, in 2023 the PRA consulted on 2 major pieces of a revised Solvency UK regime. The main changes relevant to securitisation relate to investment by annuity writers who almost all use an Internal Model for their required capital calculations.

The final rules are due out in June (after publication of this paper) and will be effective from the end of June. However, they are not expected to change materially from the consultation proposals.

Below are several aspects of the proposals relevant in the context of UK annuity writers use of securitisation, namely:

- Widening of asset eligibility criteria to include assets with highly predictable cash flows, introducing potential for a change in the degree of re-structuring required to attain Matching Adjustment (MA) eligibility and opening up the prospect for investment in securitisations such as RMBS and CLOs whose cash flows are not fixed. This additional flexibility is limited to contributing to no more than 10% of a portfolio's MA benefit and comes with higher capital charges which will be complicated to calculate.
- Senior Manager Regime Fundamental Spread sufficiency attestation to be introduced, which could have an impact on the relative attractiveness of new securitised products.
- The introduction of notched ratings (rather than the letter rating approach of credit quality steps under SII 1.0), will improve the alignment between ratings and economics of assets intra rating letter and smooth the impact of rating transitions but will require significant model change.
- Similarly, the confirmed removal of the BBB cliff edge will likely encourage more rational investment behaviors around fallen angel assets. However, it is expected this is unlikely to drive material investment into sub-IG assets, though may encourage greater investment in BBB assets.
- Acceleration of the approval process of new assets is also a keystone of the reforms which combined with other components of the reforms could facilitate greater use of securitised assets and/or structural asset overlays.

In summary, Solvency UK has the potential to unlock some degree of insurance capital for investment in UK securitised assets. In a rapidly growing Pension Risk Transfer market (estimated at >£50bn p.a. in addition to an existing c.£300bn of assets under management) even a small allocation to securitisation can amount to several £bn of potential investment.

EU Solvency II Review

Separate to the reforms going on in the UK, in September 2021, the European Commission tabled a proposal for a directive that would amend the Solvency II regime in the EU. The legislation is currently making its way thought the EU Parliament.

The broad purpose of the legislative amendments were to enhance the effectiveness of the existing Solvency II regime, identify areas for improvement and address the adequacy and alignment to market conditions of long-term guarantees.

There is little of relevance to securitisation in the proposed changes to the regime. EIOPA looked into whether there was a case for recalibrating the Standard Formula capital charges for securitisation, which are widely regarded as onerous for anything other than STS Senior securitisation. However, it concluded this was not the major reason why most insurers do not invest, but rather a risk management decision for those insurers reliant on Standard Formula.

There still remains the possibility that the EU Commission will ignore EIOPA's advice and ask for a recalibration of Standard Formula charges but this is of low likelihood, and even if the charges were reduced, the prospect for increased interest by Standard Formula insurers is very low.

04

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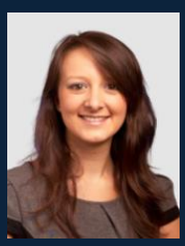

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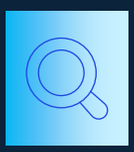
KPMG SRT Services



SRT Valuations

A growing trend in the SRT market is the use of third party providers (SRT valuations traditionally being provided by the originator themselves or done in-house).

KPMG has developed an in-house SRT valuation methodology and is currently providing SRT marks for several asset managers in Europe and an originator in the US.

Operating model – Gap analysis

A robust operating model is key to ensure SRTs benefits are unlocked and risks are appropriately managed and mitigated.

KPMG has developed a modular approach to assess clients' operating models with regards to SRT. The assessment covers a number of areas including governance, risk management, monitoring/ reporting and IT Infrastructure.

Managed Service

Compared to other distribution tools (e.g., CDS, Insurance), the barriers to entry are higher and banks need a robust operating model to safely run and manage their SRT program.

KPMG can help you achieve your ambitions faster bringing the right capabilities, skillset to help you run your SRT platform. KPMG offers a broad set of services including investors onboarding and preparation of key internal and external reports….

Structuring

Offering a trusted advisor relationship, KPMG can guide firms through the structuring process and support in the delivery of desired commercial outcomes.

KPMG can assist you in the identification and selection of the most optimal portfolios to include in SRT transactions with considerations of capital relief, test calculations of transaction tranching and pricing.

Regulatory, Accounting & Tax

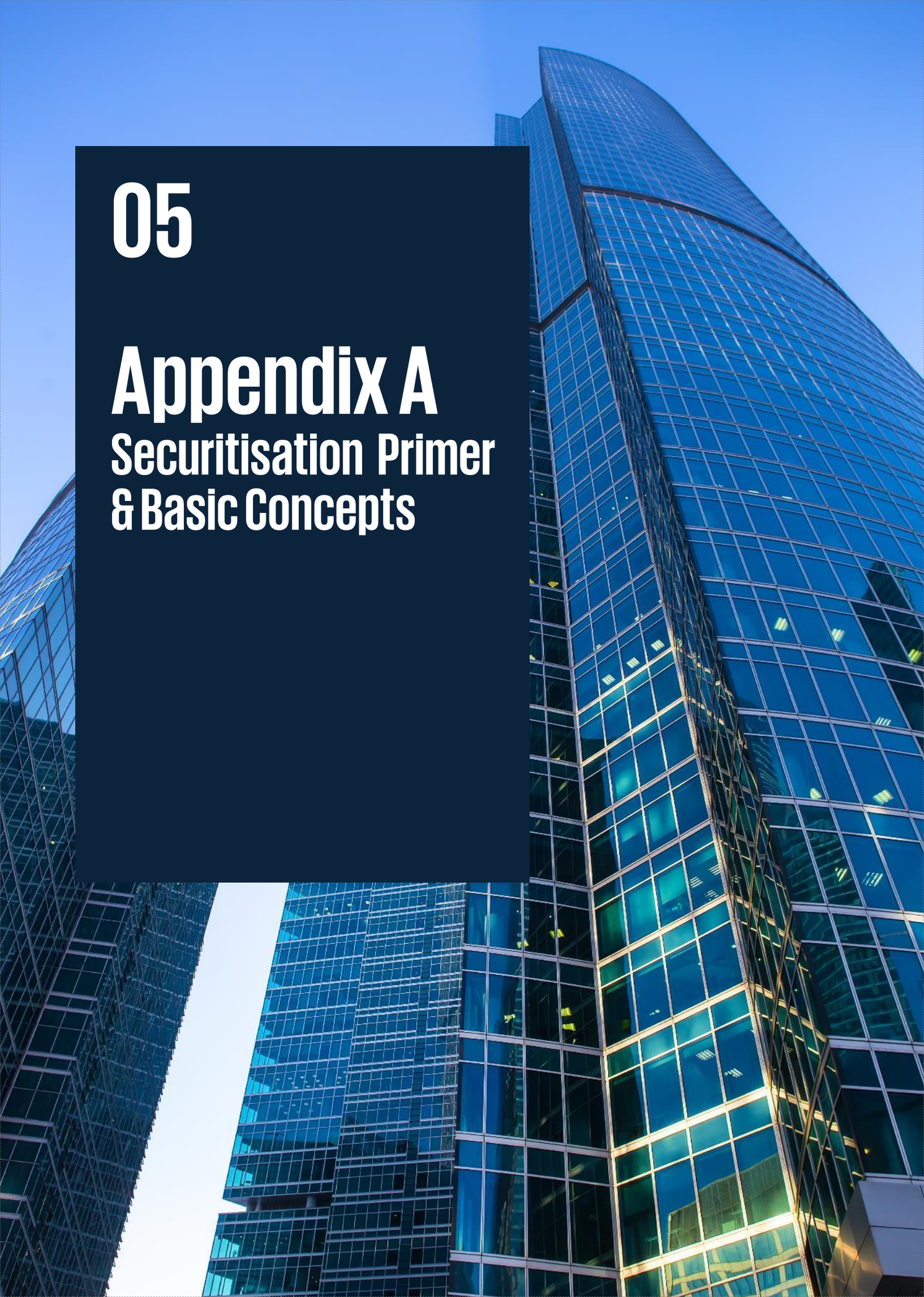
The treatment of SRT transactions from a regulatory, accounting and tax perspective need to be determined taking into consideration the impact of transactions' structuring features.

KPMG can review transaction documentation to i)ensure it passes the SRT test ii)determine the potential accounting treatment and iii) flag any detrimental tax implications. KPMG can also support in responding to regulatory questions/challenges

Verification Agent

A number of SRT deals require the appointment of a verification agent to check compliance with transactions eligibility criteria.

KPMG can act as a verification agent and assist clients in testing whether eligibility criteria are met either at the outset of the SRT transaction or retrospectively as part of the Credit Event testing.



05

Appendix A
Securitisation Primer & Basic Concepts

Introduction

The following slides provide a high-level introduction to securitisation

What is Securitisation?

A financing transaction in which the cash flows to investors come directly from a portfolio of assets, without any recourse to a transaction counterparty such as the originator

How does Securitisation work?

Financial assets are sold (typically a beneficial interest is sold) to a Special Purpose Vehicle (SPV), which funds the purchase by issuing debt in a note (i.e. bond) format.

Multiple note tranches are issued, such that senior notes benefit from the subordination of more junior notes. Subordination is an important source of credit enhancement (a buffer against loss) for senior investors.

Cash flow from the asset portfolio is allocated to investors in a defined order (the 'waterfall'). In contrast to a cash securitisation, in a synthetic securitisation risk is transferred to investors via contract (financial guarantees and credit derivatives).

Why use Securitisation?

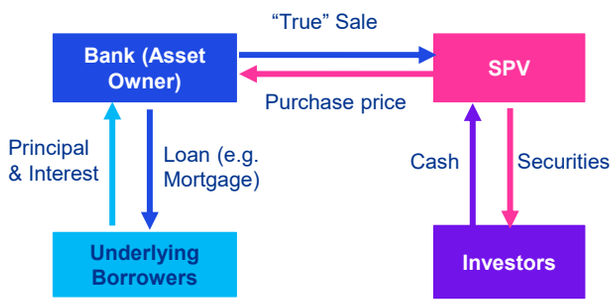
1. Reduce funding costs
2. Diversify funding sources
3. Transfer risk

What assets can be securitised?

In a securitisation, collateral should comprise financial assets that are (often) granular and diverse enough such that performance data (e.g. default, prepayment) is capable of statistical analysis. That allows for a certain level of confidence about how similar assets will perform in the future.

Typical assets are loans, leases, mortgages and receivables, which can be secured (e.g. an auto loan) or unsecured (e.g. credit card debt). Other more exotic collateral include shipping loans, infrastructure loans…etc.

Simplified structure:



Key roles in a securitisation:

- Seller/Originator: the asset owner who sells the assets to the SPV is typically also the originator (i.e. original lender) but not always as in the case of CLOs
- Issuer: typically an SPV that is bankruptcy remote, meaning it is not an operating company. It issues debt to purchase financial assets and enters into contracts with transaction counterparties (e.g. asset servicer). It is typically an 'orphan' company (owned by a charitable trust) and the risk of the parties is 'de-linked' from the risk of the assets
- Investors: purchasers of the notes issued by the Issuer

Securitisation mechanics

Tranching optimises risk-reward allocation to different pools of investors, lowering the blended cost of funds in the transaction

Sample securitisation liability structure (indicative)

**Weighted average size and spreads across recently rated Prime, Buy-To-Let, Owner-occupied, Second-Lien and Non-conforming RMBS transactions*

Tranching and target investors

Note tranching is done to optimise the balance of reward (note yield) with risk (probability of loss) sought by different categories of investors, to achieve the lowest blended cost of funds.

Losses are borne by note tranches differently, based on the transaction waterfall that defines in what order portfolio cash flows are allocated (see overleaf).

Risk retention

Under UK, EU and US rules, the Seller in a securitisation (typically the asset originator) is required to retain 5% of the capital issued by the Purchaser (the SPV Issuer). This risk retention normally comprises the junior-most 5% of the SPV's liabilities (though there are other options, like a vertical slice). Risk retention capital is often in the form of an unrated, high yielding, deeply subordinated note, held together with a residual value certificate which sweeps surplus cash flow back to the Seller.

Credit Enhancement

Credit enhancement for investors is comprised of: (i) subordination (which funds over-collateralisation); (ii) liquidity reserves (cash reserves or other support); and (iii) excess spread (surplus cash flow stemming from the difference between portfolio yield and SPV expenses and interest costs).

Rating agencies

Publicly listed securitisations are rated by rating agencies. However, even private securitisations are structured with reference to rating agency methodologies, or bank internal methodologies that are very closely based on agency methodologies.

Securitisation mechanics (cont.)

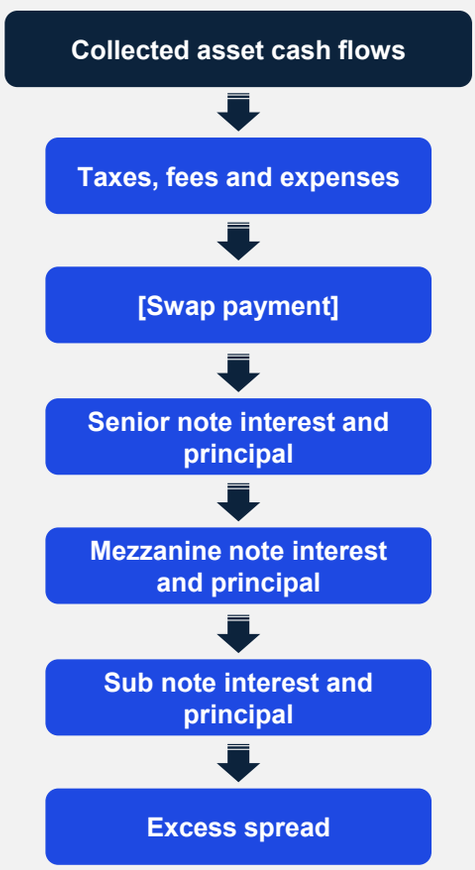
Waterfall

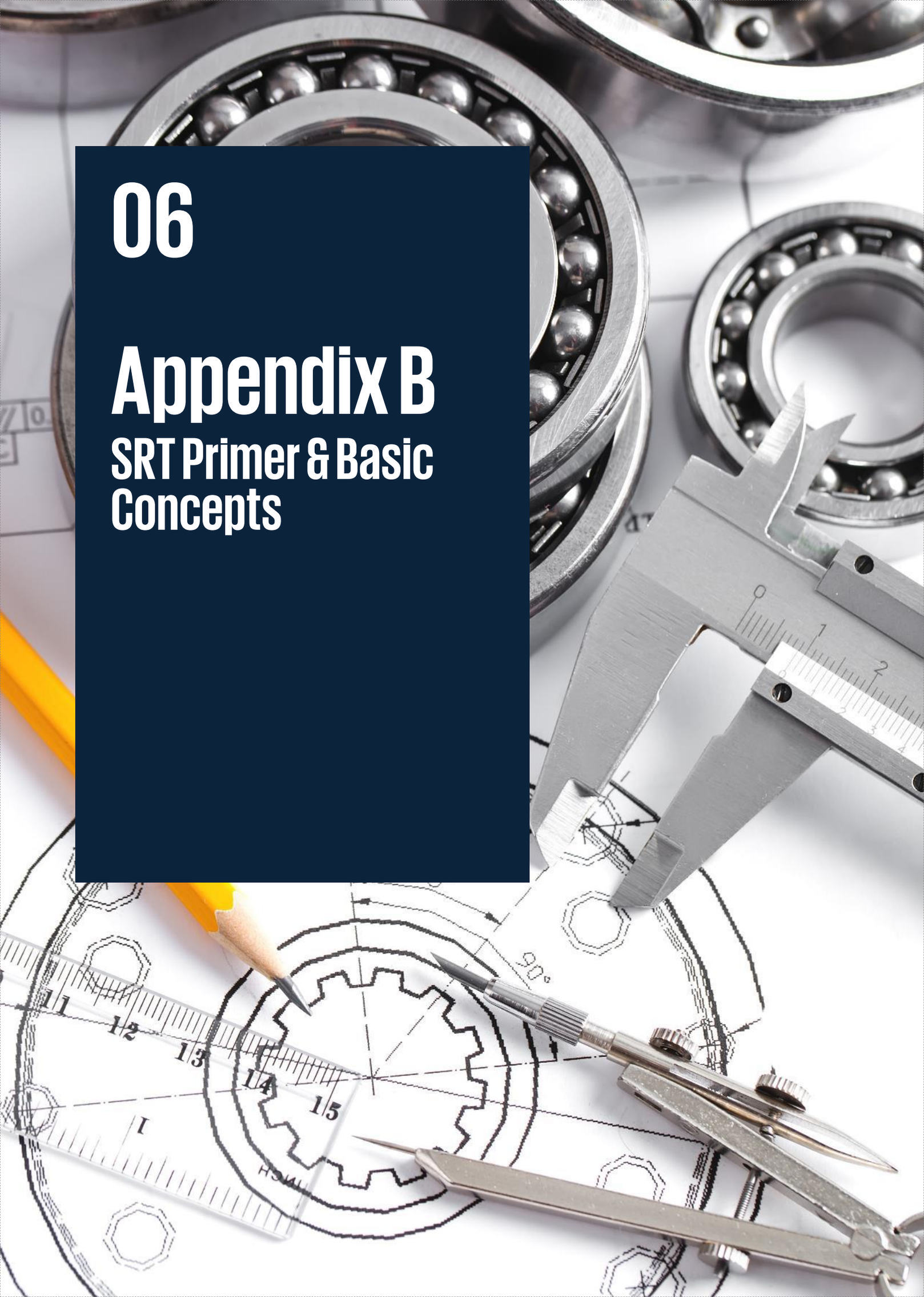
The waterfall (normally 'Priorities of Payments' in most legal documentation) is the order in which funds available for distribution (e.g. from interest and principal, and cash available in reserve accounts) are distributed to the various tranches on the liability side.

The payment waterfall(s) may be combined or separate, depending on whether the available proceeds are divided between interest proceeds and principal proceeds. In addition, there will be several different versions of the waterfall, depending on circumstances: e.g. sequential payment of note coupons in the normal course, but allocation of all available cash to fully repay senior notes in the event of a trigger event (when pool performance deteriorates).

Waterfall triggers differ based on the asset class. In CLOs (collateralised loan obligations), when the value of the collateral drops below a certain point, interest payment on more junior tranches is diverted to repay senior tranches. In this example, we call the interest payment on the junior tranche 'deferrable', which in practice would cap the public rating that can be assigned to that tranche. Such mechanisms are common and can be customised to a given transaction. This is why investors (and rating agencies) pay close attention to the exact cash flow allocation rules, as it directly impacts their return.

Typical cash flow payment waterfall (combined)





06

Appendix B

SRT Primer & Basic Concepts

Definition & Key concepts

Credit institutions:

Regulated banks within a regulated jurisdiction; a number of European countries (Germany, France, Spain, Italy, Poland and the UK) account for a large share of issuance and this paper focuses on EU regulated institutions but the concepts are also applicable to other jurisdictions.

Transferring the credit risk:

Credit risk mitigation can be instrumented in different ways, often via financial guarantees and credit derivatives. Also, investors can provide credit protection either on a funded or unfunded basis (using credit linked-notes). The eligibility of such credit mitigation instrument is detailed in the CRR, Part 3, Title 2, Chapter 4).

Regulatory capital:

Regulatory capital is the amount of capital that a financial institution is required to hold by its regulator and is usually expressed as a capital adequacy ratio. [CAR = Tier 1&2 capital/RWA]

When a bank achieves SRT, it can derecognise the RWA of the original assets, thus lowering the denominator of the capital ratio and increasing the capital ratio.

The original Basel I recommendation was 8% but this ratio has evolved to include conservation and countercyclical buffers. In practice most European banks target CET 1 ratio well above 10% (the aggregate CET 1 ratio of ECB supervised bank was around 15.7% as of Q2 2023).

Significant Risk Transfer ('SRT') transactions allow credit institutions to achieve a reduction in the amount of regulatory capital that they are required to hold by transferring the credit risk on a portfolio of assets to other parties either via a true sale securitisation or a synthetic transaction.

Assets:

SRT portfolios cover a variety of underlying instruments, typically SME and corporate loans but a wide range of other assets including leases (auto, equipment…), consumer loans, credit cards, mortgages, project finance and infrastructure loans. The transaction structure will be impacted by the nature of assets and the typical Risk Weight they carry. In any case, high capital consuming assets (with high risk weights) and relatively low risk are ideal from an economic stand-point.

True sale securitisation or a synthetic:

A large share of SRT transactions can be done as synthetic trades given the lighter operational and legal burden of this type of transactions (i.e. no requirement to set up a separate SPV, no true sale of the assets, no need for typical securitisation parties to be contracted, account banks, back-up servicer.…). However, a number of transactions can also be done as cash securitisations to also offer funding to originators at the same time. This was not a salient feature in time of unconstrained liquidity with ultra-low interest rates but may be considered in the current rising rate environment. Also, until recently under Basel II rules, credit institutions following the standardised approach had to place the whole capital structure of the securitisation i.e. senior, mezzanine. The revision of hierarchy of approaches in 2018 allows standardised back to use the SEC-SA approach (which in practice means that tranching under a standardised approach can be similar to a SEC-IRBA (i.e. credit protection covering the mezzanines and/ or First Loss Piece).

True Sale vs Synthetic Securitisation

The below table outlines the key differences between a true sale securitisation, where the ownership of the pool of assets is transferred to a special purpose entity and synthetic securitisation where the assets stay on the originator's balance sheet (hence why these transactions are commonly called 'balance sheet' securitisations). The sale of assets in a true sale does not necessarily mean however that the assets are derecognised for accounting purposes as it is often the case that the risk and reward substantially stays with the originator.

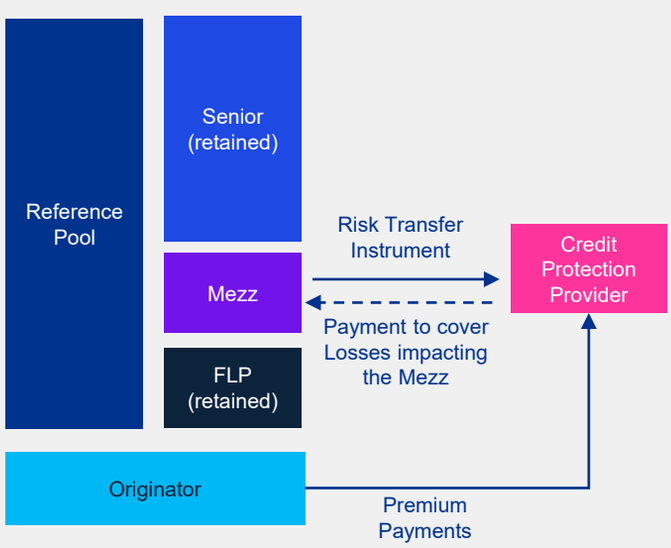
True Sale vs Synthetic Securitisation		
	True Sale	**Synthetic**
Sale of Assets	Yes, sold to a special purpose vehicle	No, assets remains on the originator's balance sheet
Purpose for bank	Funding	Credit risk hedging/capital management
Servicing of the portfolio	A Servicer needs to be appointed but likely to be originator (often with Back-up servicing clauses)	Originator, nothing changes
SPV required?	Yes, to delink the risk of the assets from the originator	Possible for funded structures involving the issuance of notes (CLN) but not required (typically cheaper to do without)
Accounting treatment of securitised assets	May be derecognised by the originator if accounting rules are satisfied	Stays on the originator's balance sheet but a credit hedge is also recognised
Regulatory derecognition	Exposures derecognised	Exposures derecognised
Syndication	Widely distributed with traditional syndication	Very small number of investors and/or bilateral deals
Capital structure	Senior and mezzanine tranches sold to market (no first loss)	Usually mezzanine and/or first loss placed with investors
External Ratings	Often	No/rare
Interest rate risk on underlying loans	Hedged separately	N/A
Currency risk on underlying loans	Hedged separately	N/A
Secondary market	Usually, tradeable bonds	Usually, non-transferable credit protection with no secondary market

Indicative Structures

Indicative structures

Synthetic securitisations structures to implement capital relief transaction may take different format notably depending on the nature of protection providers. In the below structure, the unfunded transaction typically resembles the one used by multilateral development banks such as the EIF (EIB Group) or EBRD. Given the high ratings of MDBs (the aforementioned institutions are AAA rated) an originator can allocate a 0% risk weight to the covered tranche even on an unfunded basis. This option would be the cheapest to implement but only works given the high credit quality of the guarantor

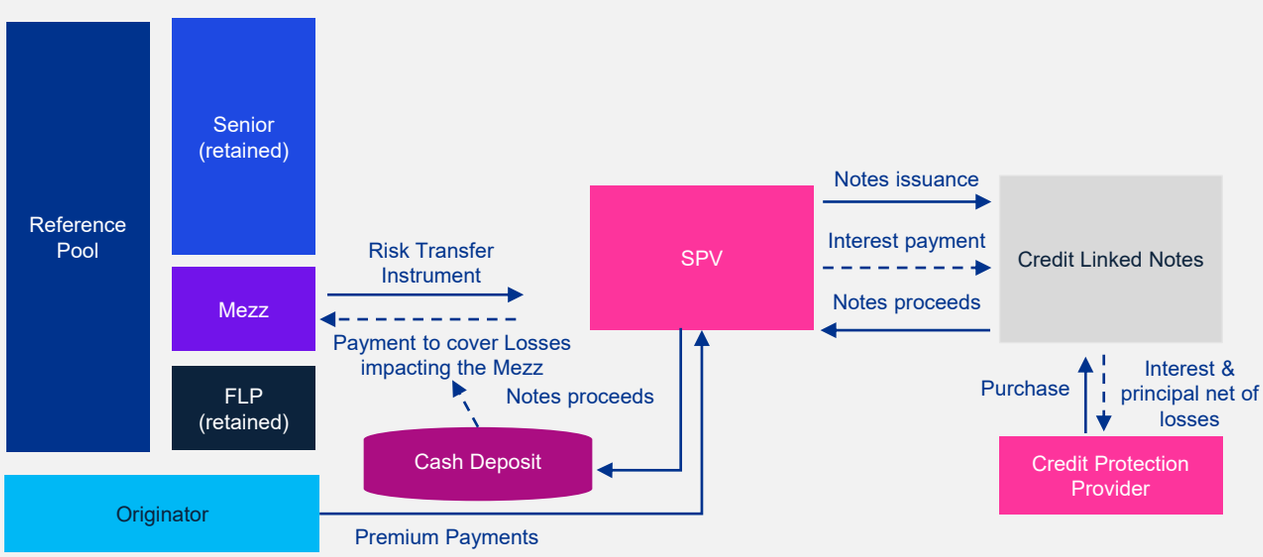
Unfunded synthetic securitisation



Should the credit protection provider in the transaction be a non-rated counterparty (e.g. credit fund) the originator would need to have the protection provider post collateral to secure to contingent protection payments (should losses impact the covered tranche). This structure could therefore be adapted in a funded way (using financial guarantees or credit derivatives still).

The second structure below illustrates a funded trade where private investors purchase the credit linked notes issued by an SPV. From that perspective all the contingent protection payments are fully funded (and invested in cash deposits) ready to bear losses. This structure is typically used where investors are unrated (e.g. credit or hedge fund) and the originator needs certainty that the guarantor will not default on its obligation to cover credit losses (should they be allocated to the covered tranche). Other intermediary structure exist where the CLNs are directly issued by the originator (maybe less favored by regulators compared to SPV structures but more cost efficient).

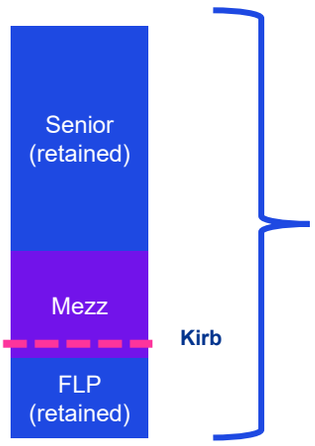
Funded synthetic securitisation (with SPV)



Securitisation Risk Weight Calculations

Under SEC-IRBA

The CRR describes in article 259 the calculation of risk-weighted exposure amounts under the SEC-IRBA. This notably depends on the attachment and detachment points of the tranche and how they compare to the capital charge on the non-securitised portfolio (i.e. the Kirb parameter for IRB portfolios).



$$RW = 1\,250\%, \text{when } D \leq K_{IRB}$$

$$RW = 12{,}5 * K_{SSFA(K_{IRB})}, \text{ when } A \geq K_{IRB}$$

$$RW = \left[\left(\frac{K_{IRB}-A}{D-A}\right) * 12.5\right] + \left[\left(\frac{D-K_{IRB}}{D-A}\right) * 12.5 * K_{SSFA(KIRB)}\right], \text{ when } A < K_{IRB} < D$$

$$K_{SSFA(K_{IRB})} = \frac{e^{a*u} - e^{a*l}}{a(u-l)}$$

$$a = -\left(\frac{1}{p * K_{IRB}}\right)$$

$$u = D - K_{IRB}$$

$$I = \max(A - K_{IRB}, 0)$$

Where $p = \max[0.3, (A + B * \left(\frac{1}{N}\right) + C * K_{IRB} + D * LGD + E * M_T$

The RW is subject to a 15% floor for non STS transactions and 10% for STS transactions.

The parameters, A, B, C, D and E shall be determined according to the following look-up table:

		A	B	C	D	E
Non-retail	Senior, granular (N ≥ 25)	0	3,56	-1,85	0,55	0,07
	Senior, non-granular (N < 25)	0,11	2,61	-2,91	0,68	0,07
	Non-Senior, granular (N ≥ 25)	0,16	2,87	-1,03	0,21	0,07
	Non-Senior, non-granular (N < 25)	0,22	2,35	-2,46	0,48	0,07
Retail	Senior	0	0	-7,48	0,71	0,24
	Non-Senior	0	0	-5,78	0,55	0,27

Non-neutrality

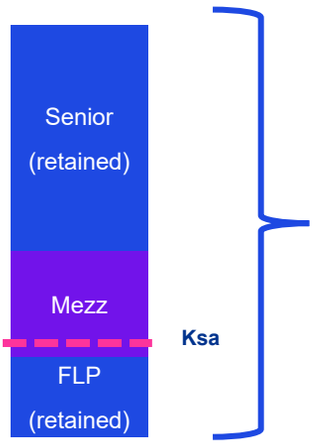
The p factor in the formula above plays an important part in ensuring the principle ‘non-neutrality’ of the transaction whereby if an institution were to securitised a portfolio and fully retain the tranches on its balances sheet, the regulatory capital would be higher than the initial portfolio (to avoid any arbitrage). This was actually one of the possible arbitrage under Basel I.

The level of this parameter directly affect the RW on the securitisation and its calibration is key.

Securitisation Risk Weight Calculations (cont.)

Under SEC-SA

The CRR describes in article 261 the calculation of risk-weighted exposure amounts under the SEC-SA. As for the SEC-IRBA, the RW depend on the attachment and detachment points of the said tranche and how they compare to the capital charge on the non-securitised portfolio (i.e. KA parameter for standardised portfolios).



$$\text{RW} = 1\,250\%, \text{when D} \leq K_A$$

$$RW = 12{,}5 * K_{SSFA(K_A)}, \text{ when A} \geq K_A$$

$$RW = \left[\left(\frac{K_A - A}{D - A}\right) * 12.5\right] + \left[\left(\frac{D - K_A}{D - A}\right) * 12.5 * K_{SSFA(K_A)}\right], \text{ when A} < K_A < D$$

$$K_{SSFA(K_A)} = \frac{e^{a*u} - e^{a*l}}{a(u - l)}$$

$$\text{a} = -\left(\frac{1}{\text{p} * K_A}\right)$$

$$\text{u} = \text{D} - K_A$$

$$\text{l} = \max(A - K_A, 0)$$

$\text{p} = 1$ for a securitisation exposure that is not a resecuritisation exposure

Where Ka is adjusted for delinquencies

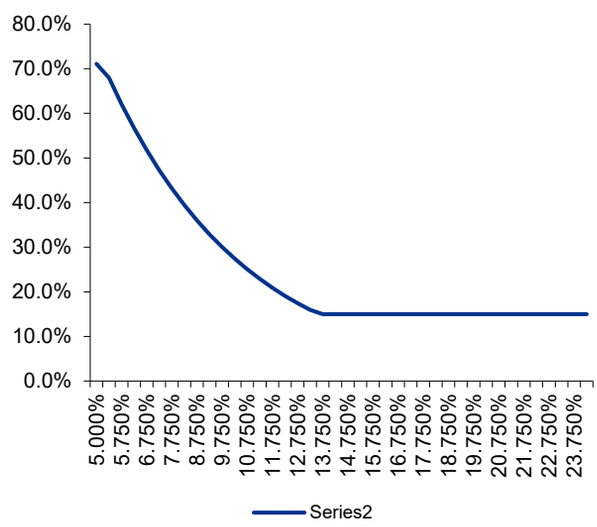
$$K_A = (1 - \text{W}) * K_{SA} + W * 0.5$$

The RW is subject to a 15% floor for non STS transactions and 10% for STS transactions.

Often transactions are structured such that the minimum risk weight calculated on the senior (retained) tranche is minimum (i.e. set at the relevant floor) although it may not always be the case depending on how the structure is expected to amortise (but rare).

The opposite graph illustrates how the risk weight on a senior tranche in a non-STS securitisation goes down to the 15% floor as the attachment point increases.

Senior RW vs. senior attachment



Numerical examples

Simplified example – without XS spread

The below tables illustrate the potential economic incentive for an originator in doing an SRT transaction (using hypothetical parameters):

Portfolio Assumptions
- £500mn portfolio size
- 75% Risk Weight
- 356mn RWA
- 12.50% Target CET1
- Tax Rate 30%

The after-tax cost of capital is lower than the CET 1 ratio and this may indicate that the trade may be beneficial to the originator. Of course each originator has its own target for the cost of capital. Also the above example is a day one calculation of potential capital benefit but the transaction need to be examined over its entire life (which may include consideration on calls).

Based on a portfolio size of £500m and a blended portfolio RW of 75% the RWA consumption of the portfolio is £356m (i.e. £500m x 75%).

Assumed transaction structure				
Securitisation tranche	**Percentage**	**RW**	**Retained**	**Guarantee Fee**
Senior	91.50%	15.0%	Yes	--
Mezz	7.00%	--	No	7.0%
Junior	1.50%	1250.0%	Yes	--
XS	--	1250.0%	Yes	--

Capital release	
Category	**GBP amount**
Ex-ante	44,531,250
Ex-post	20,296,875
Release	24,234,375
Release ratio	54.42%
Cost of release	2,450,000.00
Cost of release After Tax	1,715,000
Cost of Capital Day 0	10.11%
After tax	**7.08%**

SRT benefits

The below table summarises the key benefits to originators and investors in executing SRT transactions:

To the originator	To the investor
Capital released enables further lending or simply the strengthening of capital ratios (CET1 and MREL notably)	Access to diversified credit risk that may otherwise be inaccessible (e.g. SME lending); leverage off lending expertise of originator at little cost
Limit (concentration) management and freeing up of credit lines	Potentially attractive returns
Preserve corporate relationships (vs. straight divesture of the assets; particularly true for large syndicated corporate loans	Risk sharing partnership with originator and possibility to tailor transactions
Reduces P&L volatility created by provisioning requirements between stage 1 assets migrating to stage 2 since hedge accounting under IFRS 9 is recorded as a gain	

Regulatory framework – SRT basics

Demonstrating significant risk transfer

If a prudentially regulated bank can demonstrate to the regulator that it has removed the credit risk on a portfolio from its balance sheet, then it is allowed to disregard the RWEA of the asset pool and instead recognise the risk weighted assets corresponding to the retained tranches in the securitisation.

The set of rules and criteria to determine whether significant risk transfer has occurred is set in the Capital Requirement Regulation ('CRR') initially published in 2013 and amended in 2019 (notably including new securitisation risk weight calculation) and 2021 (with the adoption of the STS regime for balance sheet securitisation amongst others).

There are a number of quantitative tests to meet (which are detailed in the CRR but also in proposed regulation), however the 'spirit' of SRT is that capital relief achieved has to be commensurate with the credit risk transferred to third party investors (which can be a credit fund, a hedge fund, multilateral development banks…). In other words, it would increase systemic risk to allow banks to decrease significantly their capital requirements while retaining too much credit risk on their balance sheet (for a given portfolio of assets). The regulator therefore pays close attention to any technical features included in transactions that may mitigate the extent to which investors (protection sellers) may bear losses on the underlying portfolio during the life of the transaction (implicit support).

Because the regulation does not cover all technical aspects presents in transactions, in particular precise structural features (amortisation type, nature of excess spread…), the EBA published a discussion paper in 2017 (intended for discussion) that in practice serves as guidelines for the treatment of certain of those features, in particular the most contentious ones:

the type of amortisation between the various tranches of the structure, most typically a senior a mezzanine and a junior tranche (full pro rata across the capital structure with and without triggers, sequential)

- the presence of Excess Spread (none, use-it-or-lose it, with trapping mechanism) and its size
- Types of calls (time calls, SRT calls, clean-up calls)
- Cost of credit protection and instances where it would be deemed as too expensive (thus providing implicit support)

Any of the features that could make the protection buyer suffer losses instead of the protection seller would jeopardise the validity of SRT by the regulator and may result in the capital release being voided.

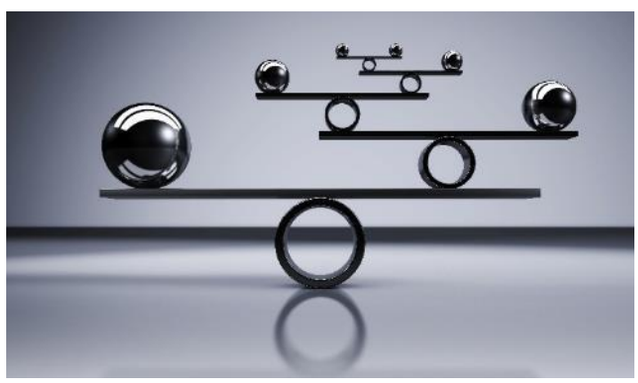
STS framework

The introduction of the new Securitisation Regulation in January 2019 also put in place a framework for STS (Simple Transparent and Standardised transactions) that allows originators to apply lower threshold to the securitisation risk weight (in particular a 10% RW threshold vs. a 15% non-STS threshold). Although these criteria initially only applied to cash securitisations, they were then adapted to balance sheet (i.e. synthetic) securitisations in 2021 as part of a package of measures implemented as relief measures due to the Covid situation, which was a positive development for the market as a whole.

An evolving regulatory framework

Regulation is part and parcel of the SRT market as it drives the dynamics, technical features and economics of those transactions. The European market where most of volumes come from is the most advanced and recent history has offered a lot of clarity with regards to what rules were applicable.

This is somewhat mitigated by the presence of regulatory calls in most transactions, allowing originators to call the deal should they fail SRT criteria due to unforeseen changes.



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