Securitisation Bank Capital Impact Analysis

Analysis in support of AFME's response to the Commission's Targeted Consultation on the functioning of the EU Securitisation Framework

December 2024

Contents

Objectives

- **Analytical objective**: To conclude whether the concerns flagged by the EBA in its report, dated 12/12/22, The Joint Committee Advice on the Review of the Securitisation Prudential Framework (Banking) in relation to “cliff effects” arising from “p” are relevant when applied in the real world to securitisations executed and held by banks.
- This analysis includes within its scope, both Significant Risk Transfer (SRT) and private lending that fall under EU Securitisation Regulation (EUSECR) for both Internal Ratings Based (IRB) and Standardised Approach (SA) portfolios.

Definition of “Cliff”

- Definition: “Cliff”
- Noun
- “a high area of rock with a steep side, often on a coast”

Question: What does “cliff risk” mean in the context of securitisation?

Answer: A situation where comparably small changes in input parameters result in comparably large changes in Risk Weights (RWs)

The intention of the analysis in this deck is to assess the extent of these “large changes” as well as the rate of change for senior exposures in securitisations

Introduction

- AFME's bank members active in EU securitisation markets primarily have exposure to senior securitisation risk through origination of SRT, securitised lending & bonds to their clients.
- These exposures are typically senior tranches with APs above Kirb or Ksa and DPs at 100% - that is to say the most senior secured risk. The capital associated with this risk will be capped at the risk weight of the underlying portfolio but at closing will often be structured at the RW Floor of 10 or 15%
- One can draw a clear distinction between on the one hand the nature of the risk described in the EBA's report of "infinitesimally thin" tranches and on the other, the core business for banks, consisting of senior tranches making up 60 – 90% of the total portfolio notional.

NB. Underlined words are defined in the glossary

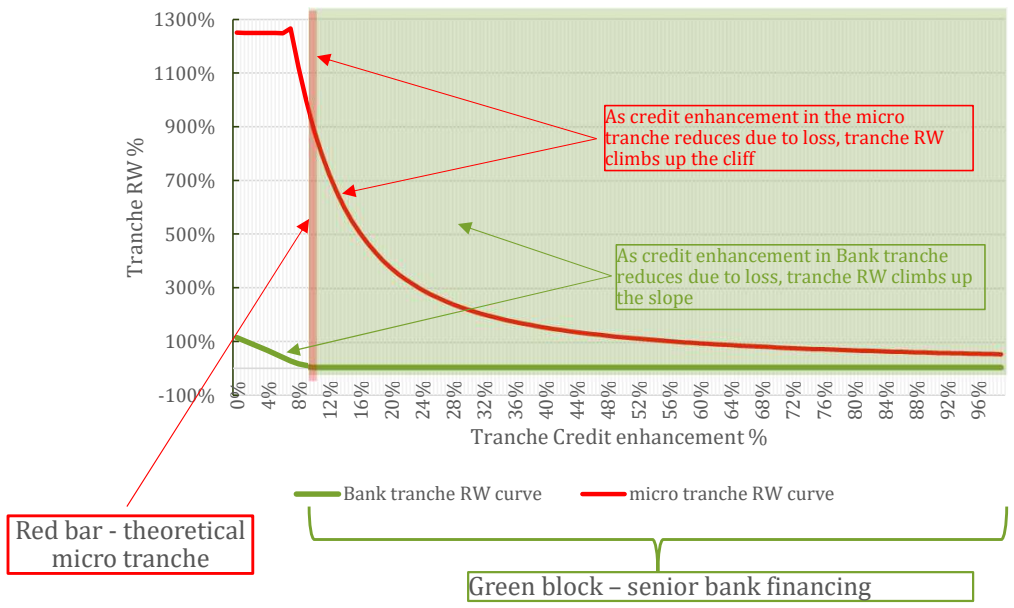
Findings

- Associated Cliff risk for EU banks with exposure to securitisation as part of their core business is significantly lower (>10x lower) than the risk identified in the EBA's report, both in terms of size of risk and its severity (ie. steepness of cliff).
- Micro thin tranches identified in the report that attach at the foot of the cliff are most vulnerable to the effects of cliff risk. This type of risk is not one that forms any part of banks' core business, which consists of SRT and financing - thick tranches with detachment points of 100%, which are not subject to cliff risk.
- AFME's proposed adjustments to the P Floor in the SEC IRBA formulation for STS and non STS to 0.1 and 0.25 appear reasonable in the context of banks' exposure generated as part of core business, through SRT and bank lending.
- AFME's proposed adjustments to the P Factor in the SEC SA formulation for STS and non STS to 0.25 and 0.5 respectively also appear reasonable in the context of banks' exposure generated as part of core business, through SRT and bank lending.
- AFME's proposal to reduce RW floors for STS and non STS from 10% and 15% to 7% and 12% respectively, whilst not as risk sensitive as other proposals currently discussed, are reasonable, and importantly provide incremental capital relief for banks seeking to use securitisation more as a financing technique for banking clients and as a tool for SRT.

Do banks face “a cliff effect” or rather a gentle slope?

Comparing so called “cliff effects” between the theoretical, represented by infinitesimally thin micro tranches and the bank market, characterized by exposure taken by banks through Significant Risk Transfer (SRT) or financing transactions shows a stark contrast in both the height of the cliff and the shape of the curve

Very different risks arising from micro tranches vs. bank senior exposure



The 2 curves on the left represent outputs of the SEC SA RW function, whose inputs differ only in the level of DP (Detachment Point) for each;

- The red curve depicts a steep “cliff” of capital up to 1250% RW, arising from a thin tranche of risk detaching at 9%, CE.
- The green curve depicts a gentle slope up to 100% RW arising from a senior tranche detaching at 100%, representing typical bank lending or risk transfer, via SRT.
- The vertical red bar represents the thin tranche of risk associated with the steep red RW curve, arising from the leverage in that very thin tranche.
- The green block represents a thick tranche of bank financing detaching at 100%, associated with the low gentle green RW curve, arising from the lack of leverage.
- Inputs into this analysis use AFME’s proposed Risk Weight Function for SEC-SA STS with a P Factor adjustment from 0.5 to 0.25 and a RW Floor of 7%

Do banks face “a cliff effect” or rather a steady increase?

- **Illustrative example – significant deterioration in a bank exposure results in limited increase in capital**
- Bank A provides EUR 100mm of senior STS financing to a corporate client securitized against a portfolio of SME lending, protected by a subordinated tranche, sized to cover both expected or unexpected losses in the SME portfolio.
- At transaction close, bank A will hold 10% RWs (EUR10mm) against that exposure or, ~EUR800k (0.8%) of capital
- SME portfolio subsequently incurs unexpected losses such that the subordinated tranche is reduced to zero. Ie. to the far left of the chart in the previous slide (Tranche credit enhancement of 0%)
- As a result of this loss, Bank A’s risk weight on the exposure has increased to 100% RW, or 8% of capital
- Note the substantial difference of the above outcome vs. the outcome for the micro tranche in the same event, whose RW increases to 1250% or 100% of capital and reaches the maximum RW much earlier

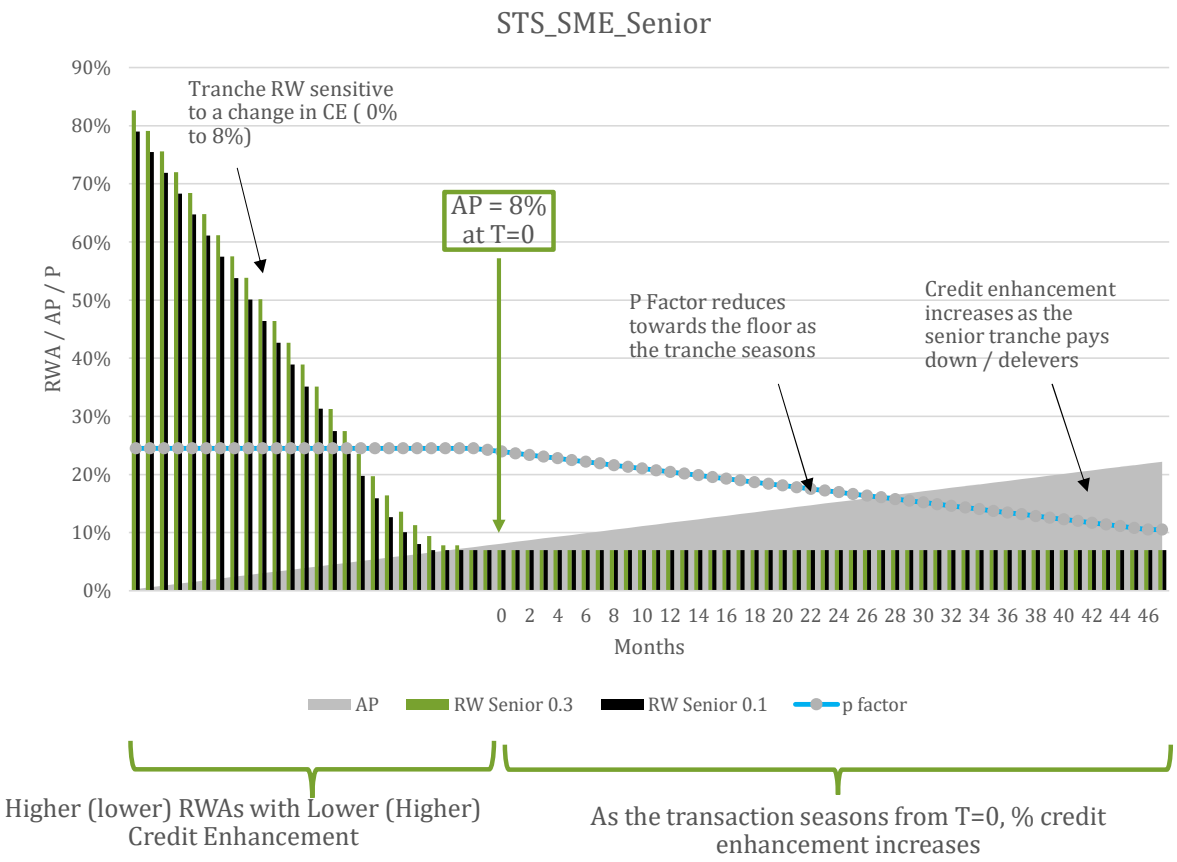
Securitisation exposures held by banks using Securitisation IRBA (SEC IRBA)

The following case studies represent real world examples of securitisations of consumer and wholesale portfolios over the life of the transaction. Specifically, they show:

1. The evolution of RWA% of the senior tranche as the transaction seasons, showing protection under the tranche building through increasing credit enhancement as the underlying portfolio amortises down. This beneficial effect is the core reason why this asset class sees a greater percentage of upgrades* than other fixed income instruments.
2. The range of RWA% for the senior tranche if the transaction had been structured with a lower Attachment Point at T=0. This way, one can see the maximum theoretical RWA for that tranche if the AP were zero as well as the shape of the curve over that range.
3. The difference in RWA% between the current Prudential Framework and AFME's proposed adjustment to the P Floor for both STS and non STS and the effect it has on the level of P.
4. Slides 17-20 illustrate the impact upon P resulting from a change in each of the underlying variables that affect P in order to better understand 1) the conditions under which P is constrained by both the Floor scenarios above and 2) how the change in P is correlated to these variables, and 3) the impact of this movement in P upon the risk weight of the senior retained tranche.

* Q3 2024 Securitisation Report: Key Findings

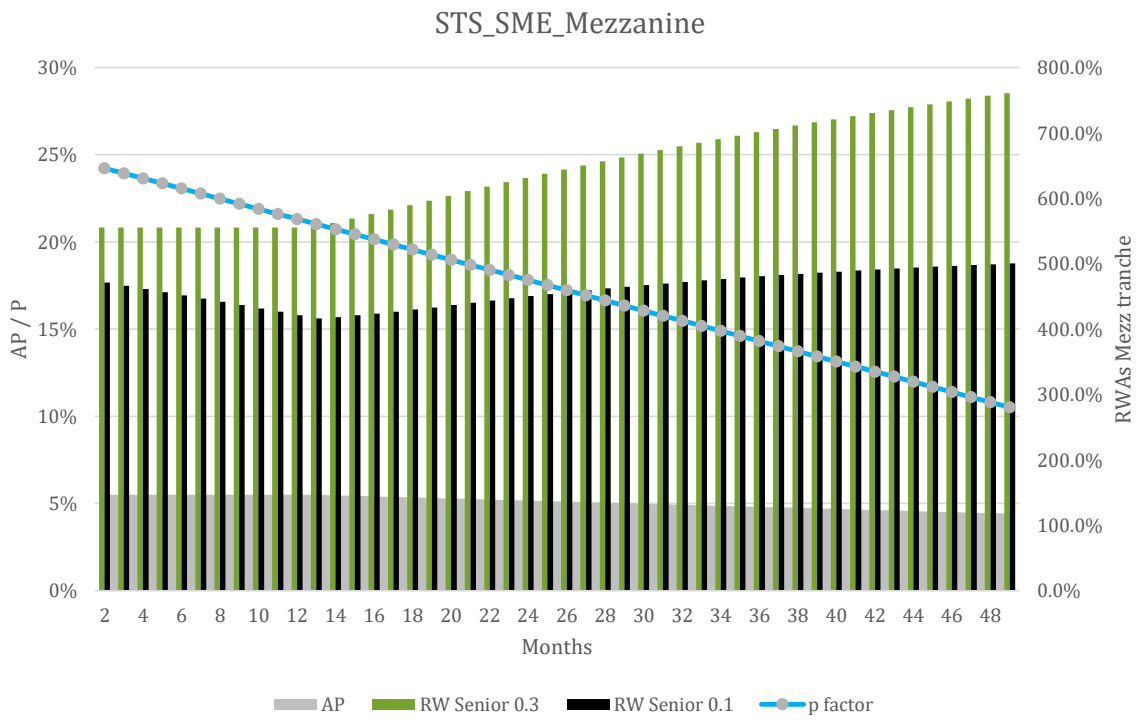
Senior retained tranche RW transition: increasing CE and seasoning



Case study: STS SME CLO

- Kirb: c.5%
- Attachment Point (AP): 8%
- 4yr Cumulative Loss Est: <1%
- AP of 8%, Cum loss of <1% = >8x cover
- MT: 4 years, amortising
- AFME modelled RW Floor : 7%
- The senior tranche of these transactions are typically structured to attach at a point close to the RW floor.
- As this chart shows, an AP of 8% is close to the point where RWs become floored. This is the case for the other case studies too.
- The curve to the left of “0” represents the RW% that would be held against the senior tranche at the various levels of the AP.

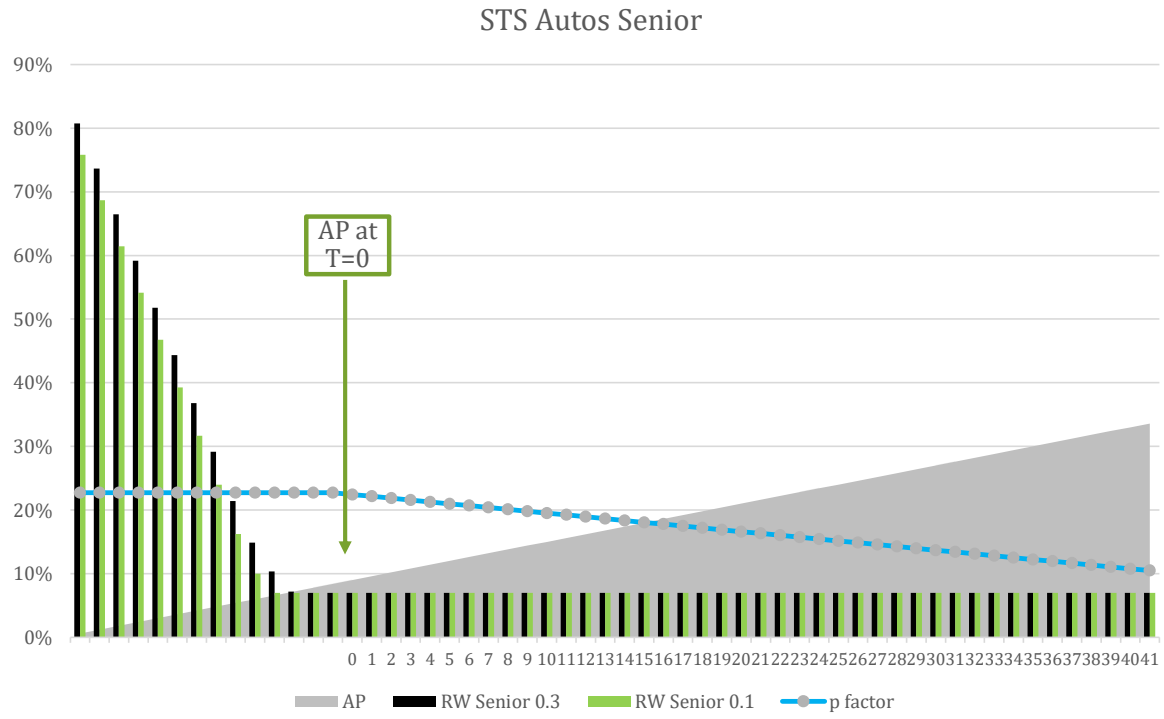
Mezzanine retained tranche RW transition: reducing CE and seasoning



Case study: STS SME CLO

- Kirb: c.5%
- Attachment Point (AP): 5.5% to 8%
- 4yr Cumulative Loss Est: <1%
- AP of 5.5%, Cum loss of <1% = >5.5x cover
- MT: ~4 years, bullet
- RWs of mezz tranche with AP of 5.5% will increase over time to reflect erosion of CE
- A decrease in CE as a result of losses results in a steady increase in trance RWs.
- The trend of the RW curve contrasts with the evolving RW on Senior tranche as a result of the effect of delevering on the latter

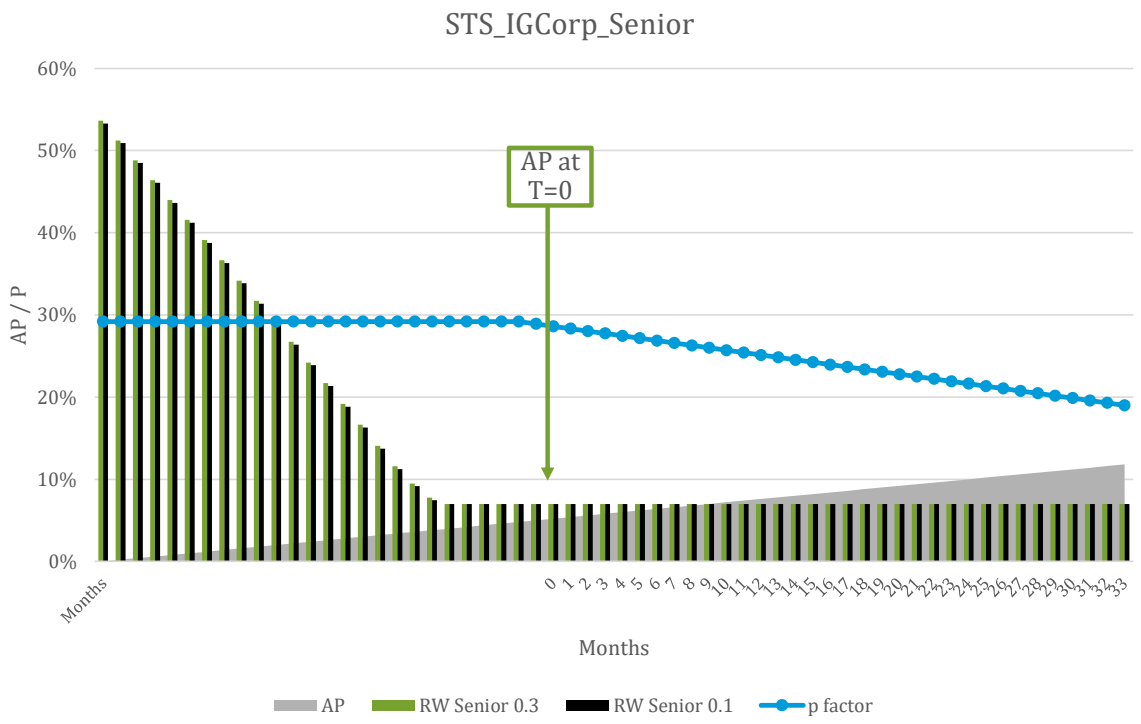
Senior retained tranche RW transition: increasing CE and seasoning



Case study:STS Autos

- P Floor scenarios: 0.25 vs. 0.3
- Kirb: c.5%
- Attachment Point (AP): 8.5%
- MT: 5 years, amortising
- RW Floor assumption: 12%
- The RW of transaction with AP of 8.5% will be floored at the RW Floor of 7%
- In base case, % credit enhancement will evolve to reflect the effects of seasoning (increase in CE) and loss (decrease in CE)
- The net effect of which will be for an increasing cushion to develop to protect from an increase in RW, whilst the RW floor level constrains a reduction in RW.
- P falling from 0.23 to 0.15 towards end of transaction

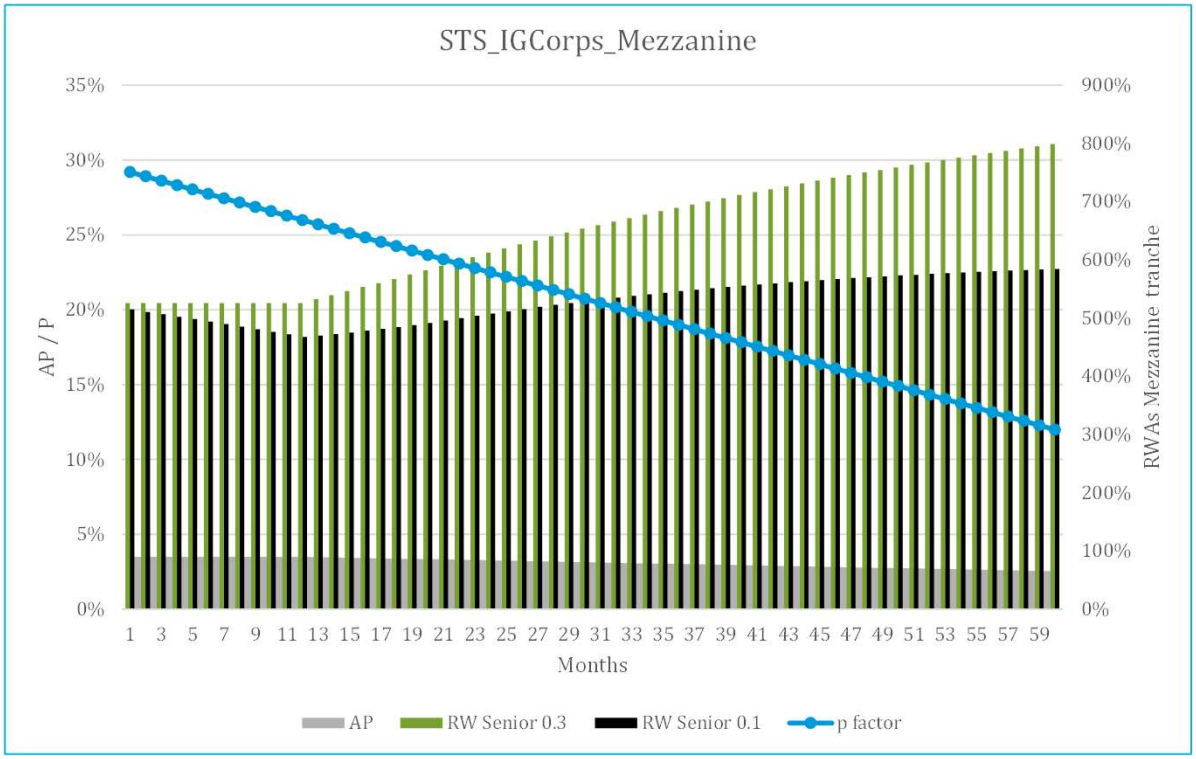
Senior retained tranche RW transition: increasing CE and seasoning



Case study: STS IG Corp CLO

- Kirb: c.3.3%
- Attachment Point (AP): 5%
- Expected loss over 3 years: <1%
- AP of 5%, Cum loss of <1% = >5x cover
- MT: 3 years, amortising.
- As the transaction matures, credit enhancement will increase but the RW floor constrains the tranche RW from dropping beneath the floor.
- P gradually reduces from c.0.29 at T0 to 0.19 P Floor at T:36

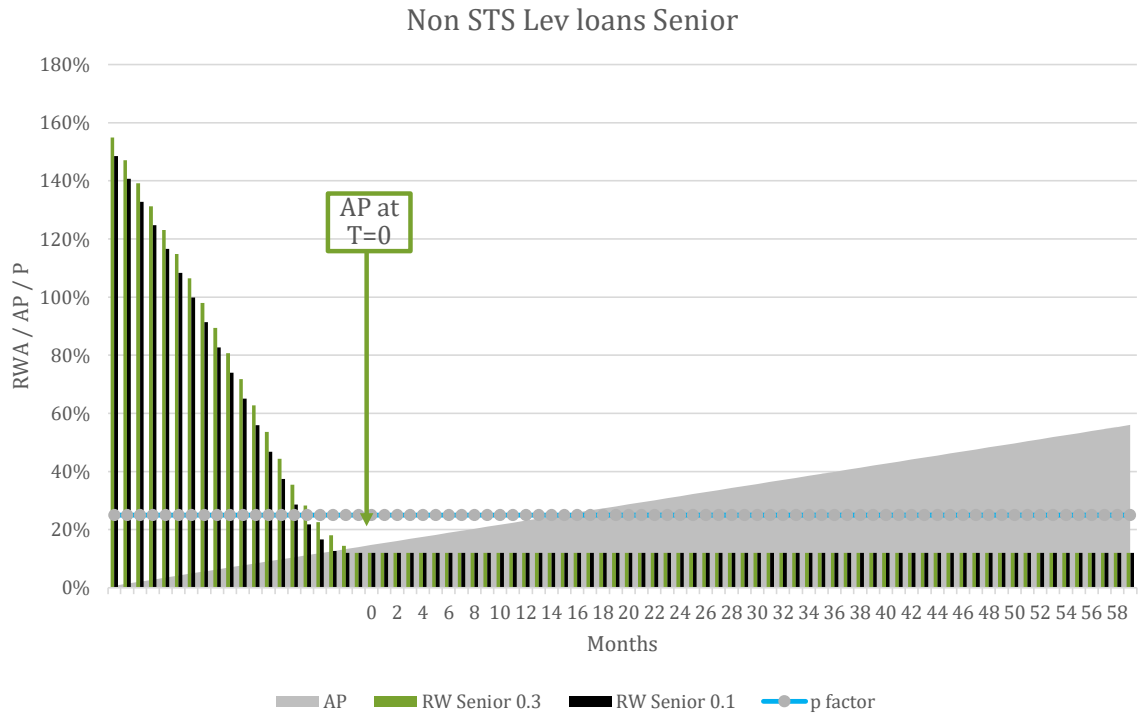
Mezzanine retained tranche RW transition: reducing CE and seasoning



Case study: STS IG Corp CLO

- Kirb: c.3.3%
- Att Point (AP) to (DP): 3.5% to 5%
- MT: 5 years, bullet
- RW Floor assumption: 7%
- RWs of mezz tranche with AP of 5.5% will increase over time to reflect erosion of CE
- The trend of the RW curve contrasts with the evolving RW on Senior tranche as a result of the effect of delivering on the former
- Evolution of P mirrors slide [6] as unaffected by tranche position

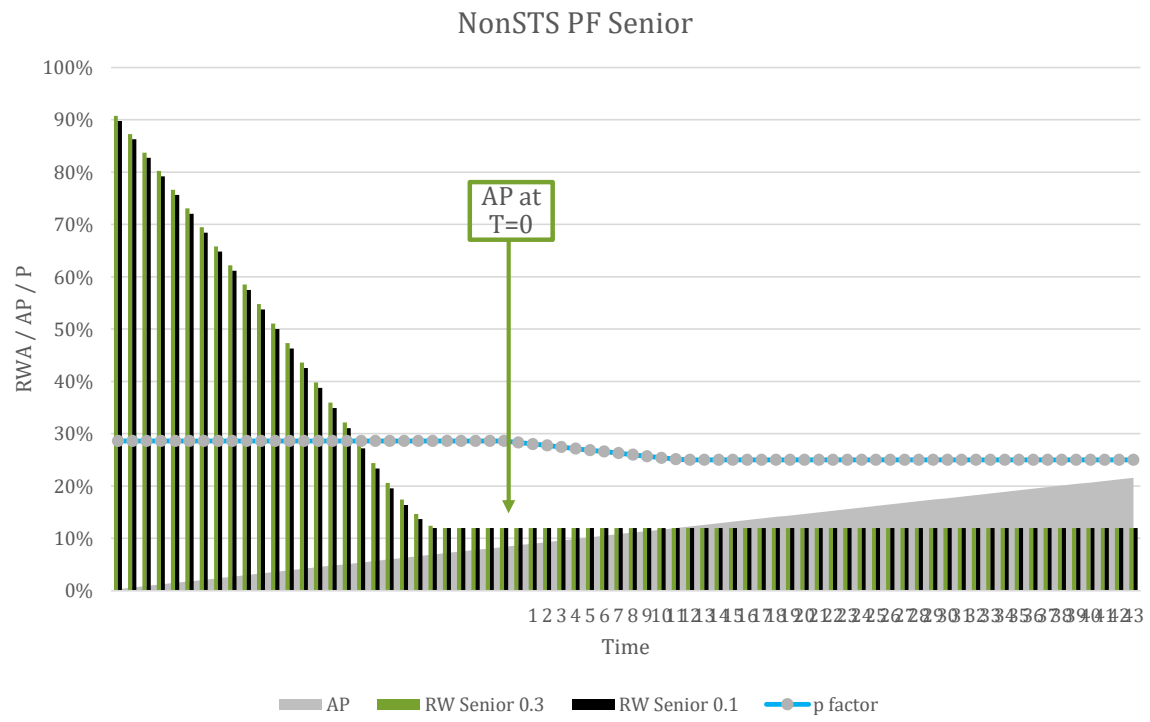
Senior retained tranche RW transition: increasing CE and seasoning



Case study: Non STS HY Loan CLO

- P Floor scenarios: 0.25 vs. 0.3
- Kirb: c.10%
- Attachment Point (AP): 15%
- MT: 5 years, amortising
- RW Floor assumption: 12%
- AFME's proposed reduced P floor of 0.25 bites constraining P from falling further
- The RW of a non STS transaction will be floored at AFME's proposed RW Floor of 12%
- P at floor of 0.25 at T0

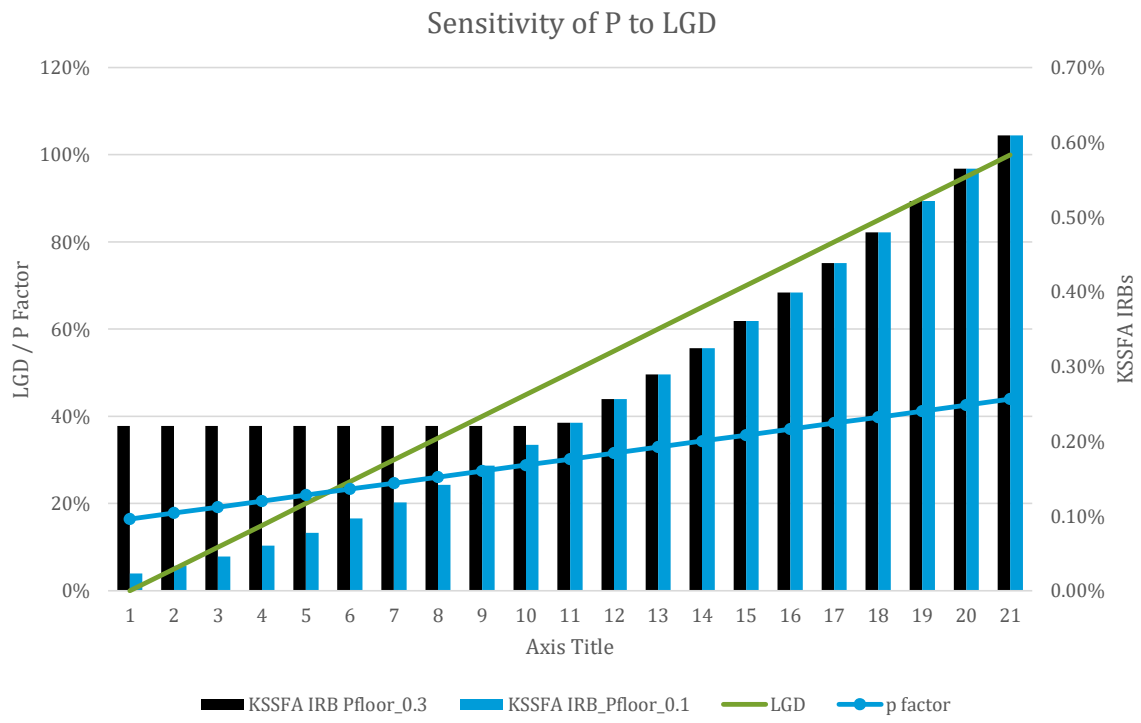
Senior retained tranche RW transition: increasing CE and seasoning



Case study: Non STS Project Finance CLO

- P Floor scenarios: 0.25 vs. 0.3
- Kirb: c.5%
- Attachment Point (AP): 8.5%
- MT: 5 years, amortising
- RW Floor assumption: 12%
- AFME's proposed reduced P floor of 0.25 bites within a year, constraining P from falling further

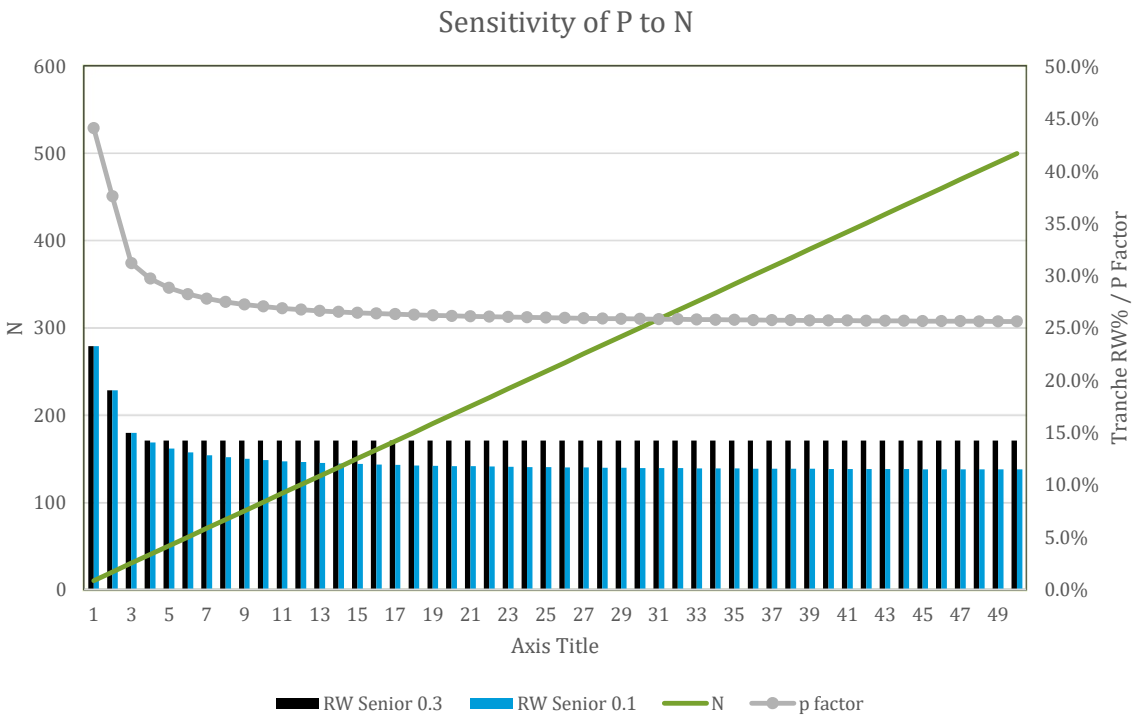
Impact of increasing LGD upon capital allocated to Senior tranche and P



Scenario tested: Loss Given Default (LGD)

- Intuitively, as LGD increases, so does the P Factor, such that at LGD:0, P is at 0.16, increasing to 0.44 at LGD:100
- In other words, in scenarios of zero asset loss in the event of default, P is at 0.1 and in scenarios of 100% loss (in the event of default), P is at 3.8
- AFME's proposal to reduce Pfloor increases risk sensitivity. However, for portfolios of LGD greater than ~45%, which includes the majority, AFME's proposal is at the same level as the existing PFloor

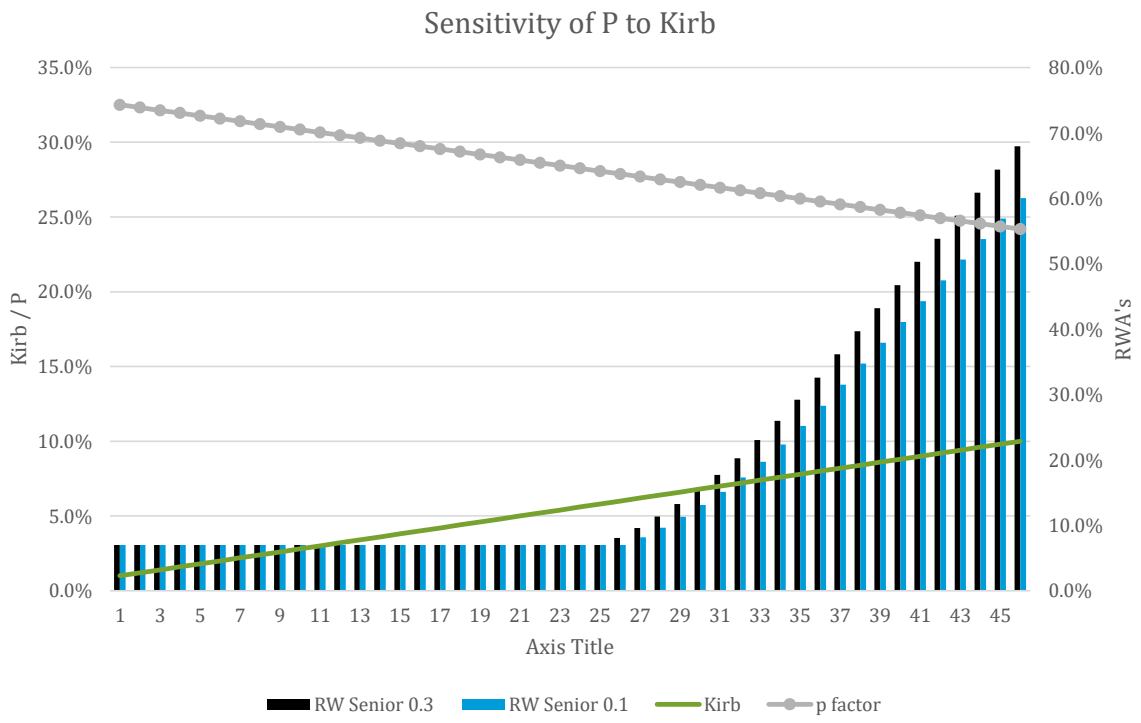
Impact of increasing N upon capital allocated to Senior tranche and P



Scenario tested: N

- P Factor increases from 0.28 to 0.44 as N drops below 25
- P Factor drops gradually to 0.25 as N increases to 500.
- As P drops towards the AFME's proposed P Floor, the differential in Tranche RWs increases marginally

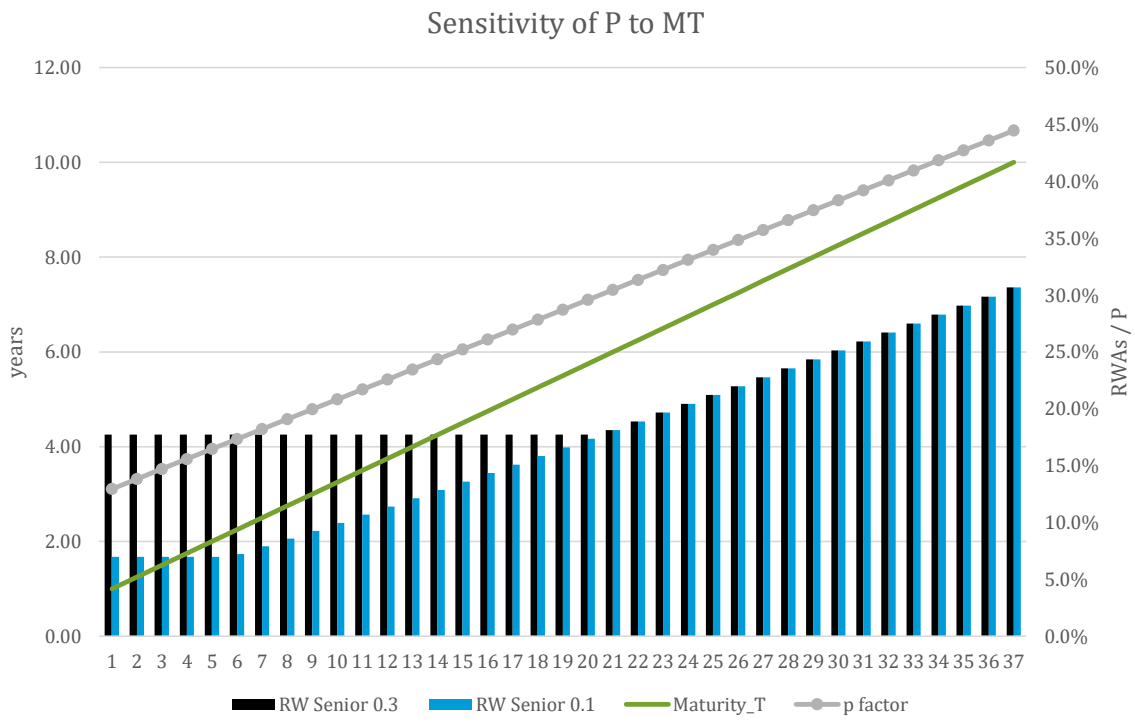
Impact of increasing Kirb upon capital allocated to Senior tranche and P



Scenario tested: Kirb

- This chart assesses the impact across a range of portfolios from low (1%) to high (10%) portfolio Kirb (LHS)
- P in turn ranges from 0.34 to 0.24, decreasing as Kirb increases.
- The differential between AFME's proposal increases from zero at 75% RW to ~10% at 125% RW.

Impact of increasing Mt upon capital allocated to Senior tranche and P



Scenario tested: Tranche Maturity

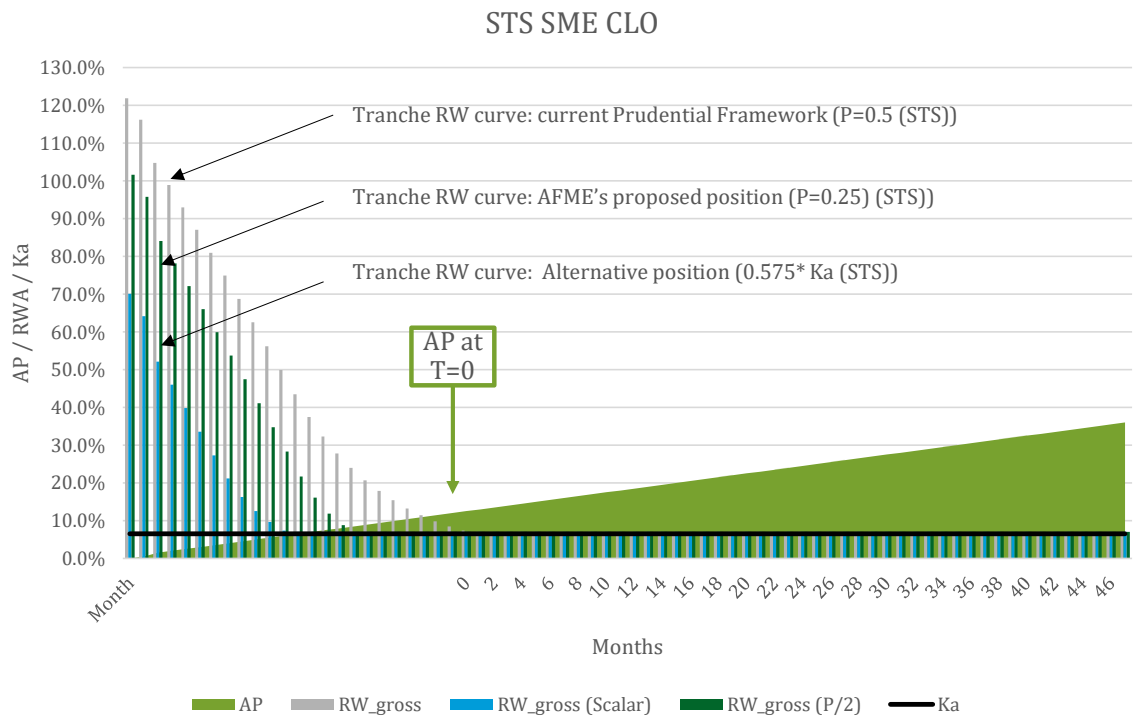
- This chart assesses the impact across a range of maturities from 1 year to 10 years
- For portfolios with maturity of less than 5.5 years, AFME's proposed Pfloor gives credit to short maturity exposures.
- P in turn ranges from 0.13 to 0.43 increasing with an increasing Tranche Maturity

Securitisation exposures held by banks using Securitisation SA (SEC SA)

- The following case studies (slides 22-25) illustrate wholesale and retail securitisations ,both STS and non STS, with focus on the bank senior held / retained tranche, with Attachment Point of x% and Detachment Point (DP) of 100%.
- These case studies compare the impact upon the risk weight of the senior tranche across different Attachment Points (AP) starting at AP:0 at T0, in 3 scenarios for STS and Non STS: a) 0.5, 1 & b) 0.25, 0.5 & c) Scaling Factor* 0.575, 0.65.
- These slides show the Risk Weight (RW) transition of the Senior tranche over the life of a transaction as it seasons, showing the effect of increasing credit enhancement (CE) only in the case of SEC SA.

*For the purpose of this analysis, stated SF has been applied to Ka as an input into SECSA for the purpose of calculating SSFA

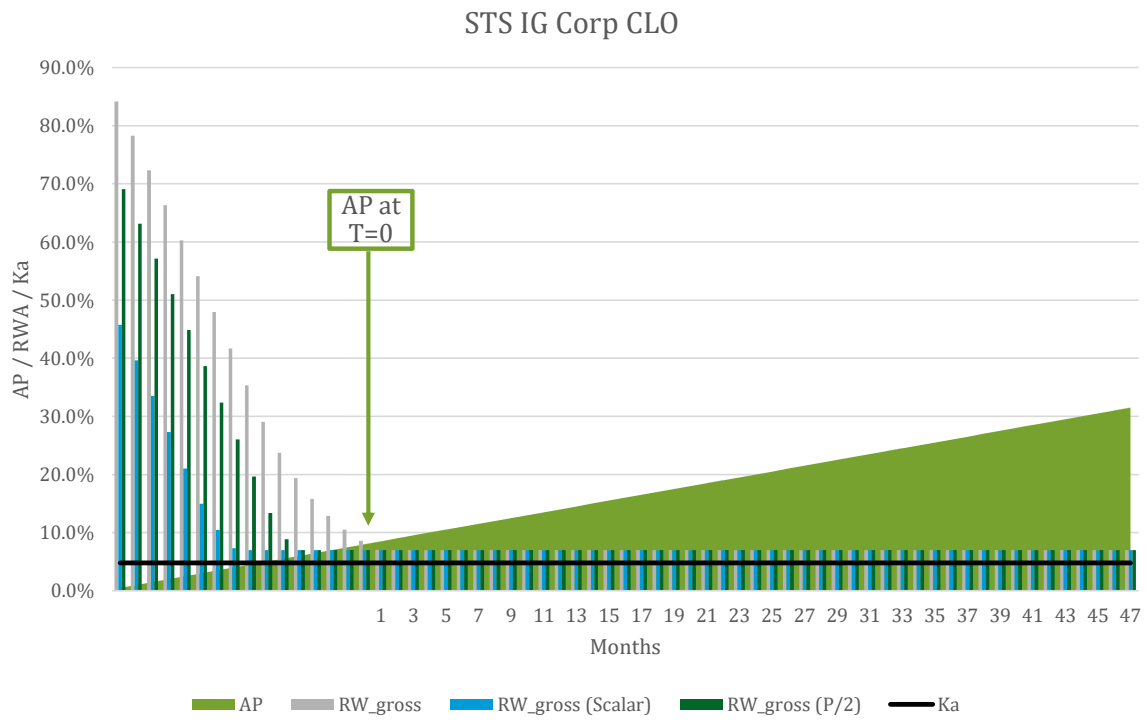
SEC SA Senior retained tranche RW transition: increasing CE and seasoning



Case study: STS SME CLO

- Ka: c.6.5%
- Attachment Point (AP): 12%
- 5yr Cumulative Loss Est: 1%
- MT: 4 years
- RW Floor assumption: 7%
- Tranche RWs for AFME's proposal of a P Factor of 0.25 for STS securitisations sits in between the current framework and the application of a scaling factor of 0.575 to Ka.

SEC SA Senior retained tranche RW transition: increasing CE and seasoning

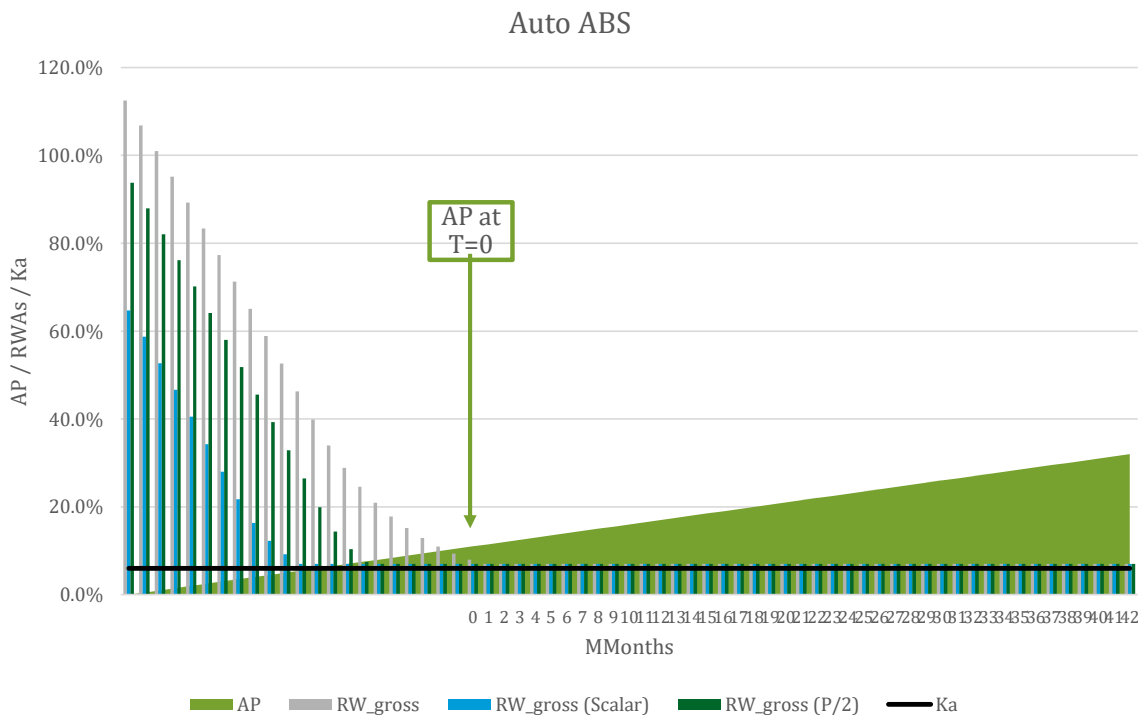


Case study: STS IG Corp CLO

- Ksa: c.4.8%
- Attachment Point (AP): 7.6%
- 5yr Worse case Cumulative Loss over 40 years*: 0.9%
- MT: 4 years, amortising
- RW Floor assumption: 7%
- The effect of an amortising portfolio on building CE is evident in all these charts, further protecting the senior tranche from incurrence of credit loss

* Source S&P Transition Study 2023

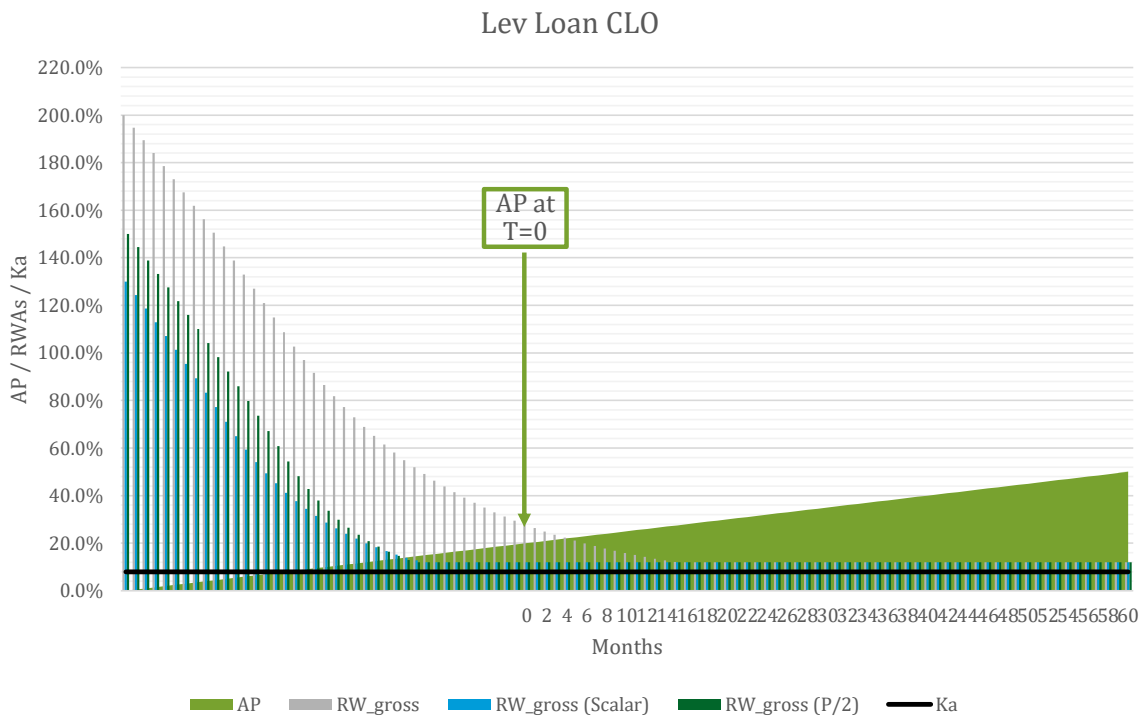
SEC SA Senior retained tranche RW transition: increasing CE and seasoning



Case study: Auto ABS

- Ka: 6% (Operational phase)
- Attachment Point (AP): 11%
- 5yr Cumulative Loss Est: [*]
- MT: 3 years
- RW Floor assumption: 7%

SEC SA Senior retained tranche RW transition: increasing CE and seasoning



Case study: Lev Loan CLO

- Ka: 8%
- Attachment Point (AP): 20%
- 5yr Cumulative Loss Est: 1.6%
- MT: 5 years
- RW Floor assumption: 12%

Glossary

Attachment Point (AP) - The point in the capital structure at which the risk attaches. For example, an AP of 8% indicates that the tranche has subordination or credit enhancement of 8% providing support to the tranche

Detachment Point (DP) - The point in the capital structure at which the risk detaches. When considered along side the AP, this informs the thickness of the tranche. For example, an AP of 8% and a DP of 100% indicates that the tranche is 100%-8% =92% thick

Credit Enhancement % (CE) – The percentage of subordination or overcollateralization that provides credit support to the tranche

Seasoning transaction – A transaction starts to season as soon as it closes, characterized by amortization of the underlying portfolio, and the notes.

Contacts

Securitisation

Shaun Baddeley
Managing Director, Securitisation
Shaun.baddeley@afme.eu
+44 (0)20 3828 2698

Maria Pefkidou
Associate Director, Securitisation
maria.pefkidou@afme.eu
+44 (0)20 3828 2707

Raag Pathak
Graduate, Securitisation
Raag.Pathak@afme.eu
+44 (0)20 3828 2759

Advocacy

Remi Kireche
Director, Advocacy
Remi.Kireche@afme.eu
+32 2 883 55 53

Jim Rusagara
Manager, Advocacy
Jim.Rusagara@afme.eu
+32 479 02 97 00

Martina Torelli
Graduate, Public Policy & Advocacy
Martina.Torelli@afme.eu
+32 2 883 55 54

London Office
39th Floor
25 Canada Square
London E14 5LQ
United Kingdom
+44 (0)20 3828 2700

Brussels Office
Rue de la Loi, 82
1040 Brussels
Belgium
+32 (0)2 788 3971

Frankfurt Office
Große Gallusstraße 16-18
60312 Frankfurt am Main
Germany
+49 (0)69 710 456 660

Follow AFME on Twitter
@AFME_EU

Association for Financial Markets in Europe
www.afme.eu