



### Perception:

EU insurance companies would have strong appetite for securitisation if the Solvency II capital framework were calibrated appropriately.

### Reality:

EU insurance companies would have strong appetite for securitisation if it were not for the miscalibrated capital charge framework of Solvency II

For more information, follow links below:

- [AFME Survey: 2012](#)
- [AFME Survey: 2014](#)
- [AFME Survey: 2017](#)
- [AFME / RCL SII capital analysis](#)

## Perception: EU insurance companies have very limited interest in investing in securitisation.

Reality: EU insurance companies would have strong appetite for securitisation if the Solvency II capital framework were calibrated appropriately.

- **The EU insurance industry invests EUR[5 trillion] of savings across a diversified portfolio of equities and fixed income. EU ABS is significantly underweight, making up less than [0.5%] of this investment.**
- **Solvency II framework suppresses returns on capital:** Prudentially regulated investors assess relative value between asset classes using return on capital (RAROC) as a benchmark. The effect of lack of risk sensitivity in the prudential framework is an overallocation of capital to the investment, which in turn destroys relative value – ie. the returns for the product per unit of capital reduce as capital increases.
- **A miscalibrated framework:** Securitisation capital within the Solvency II framework is evidently miscalibrated whether one assesses the framework on either a relative or absolute basis. It is important that the whole framework is appropriately calibrated in order to avoid introducing capital cliff risk within the framework.
- **Re-engagement of the EU insurance investor base:** Appropriate recalibration of the Solvency II framework should logically reverse the declines in EU insurer appetite for securitisation, if implemented along side other relevant demand side reforms, to levels observed prior to the implementation of Solvency II. Whilst these prudential reforms are important in restoring demand for securitisation, the effects of such reforms may take longer than other implemented measures given that this disengaged investor base will need to reconfigure business models, re-allocate capital and re-skill before substantive investment can be made.
- **Effects of a miscalibrated framework:** Feedback from insurance stakeholders emphasized that the effect of a miscalibrated Solvency II framework not only disincentivizes EU insurance investment but also neither serves the interests of policy or shareholders nor supports systemic stability of the insurance industry.

- In December 2022, the JC published their [advice](#) on the review of the securitisation prudential framework for insurance. The report concluded that:
  1. *“The Solvency II framework does not seem to be a significant driver for (re)insurers investment activity in EU securitisation”*
  2. *“At this stage, the evidence is not sufficient to justify a change in the calibration for securitisations which meet the STS criteria. On the Non-STS segment of the market, it was also found that change in the calibration is not warranted”*
  3. *“On the improvement of the risk sensitivity of the capital calibration...EIOPA’s analysis concluded that although some changes could be feasible, their potential effectiveness to the revival of the securitisation market remains uncertain”, with one of the two<sup>1</sup> main reasons being “the potential cost of changing the existing framework is high given the low investment volumes and the very low participation of the insurance industry”*
- In this presentation, we present evidence that the SII framework is indeed a significant driver of insurers’ investment activity in the securitisation market by showing that SII capital charges:
  - a) reduce significantly the relative value of most securitisation investments for insurers, and hence, cause low investment allocations to the asset class (p. 8-12)
  - b) create implicit incentives to invest further down the capital structure into junior mezzanine and equity-like risk (p. 13-14)
  - c) create regulation-induced cliff effects limiting insurers’ take-up of STS securitisations (p. 15)
- With respect to the second point, we present evidence suggesting that the current calibration significantly overestimates the loss of value in the 99.5% scenario for non-senior STS and non-STS securitisations (p. 6-7)
- Regarding the third point, we provide evidence on p. 5 that insurers are interested in the securitisation market but have been deterred by the implementation of the SII framework. And, in fact, we contend on p. 16 that the opportunity cost of maintaining the status quo far exceeds *“the potential cost of changing the existing framework”*, especially with the EU’s ambition for a deep, well-functioning Savings and Investments Union (SIU). In our view, this third point represents circular reasoning. The low investment volumes of EU insurers is a direct result of miscalibrated and risk-insensitive capital charges. Therefore, using the outcome (low investment by insurers) as a justification to avoid addressing the cause (SII capital calibration) creates a closed loop that only reinforces the original barrier to investment.

<sup>1</sup> The other reason was “not to increase complexity to an already complex framework which was updated only three years ago”.

## SII and the Savings and Investments Union

### Total Investment Assets of EU Insurer Universe (EUR billion)

5,363

### Total Securitisation Investments of EU Insurer Universe (EUR billion)

53

	% Investment Allocation to Securitisation	Corresponding Total Securitisation Investments (EUR billion)	Potential Increase in Securitisation Investments (EUR billion)
Current Allocation	0.99%	53	-
Internal Model Allocation	3.45%	185	132
	4.00%	215	162
Estimated 2010 Allocation	4.91%	263	211
	6%	322	269
	7%	375	323
	10%	536	483
US Insurer Allocation	15.22%	816	763

Note: EU insurers' estimated 2010 investment allocation to securitisation was calculated as follows: BofA Global Research found that listed insurers allocated around 8% of their fixed income investments to securitisation in 2010 (see p. 5). In 2023, EU insurers invested EUR 3,293.599bn in fixed income according to EIOPA insurance statistics. If 8% of this was in securitisation holdings, this would translate to total securitisation investments of EUR 263.49bn (implying a 4.91% investment allocation to securitisation). The US insurer allocation was calculated as follows: US insurers allocated 25.04% of their bond portfolio to securitisation in 2023 (see p. 11), and according to the NAIC, bonds represented 60.8% of their total cash and invested assets. Thus, securitisation represented 15.22% (25.04% \* 60.8%) of their total cash and invested assets in 2023.

- In this section, we estimate the level of increased demand from insurers if the SII framework was made proportionate with respect to the capital charges on securitisation exposures.
- A suitable (although not perfect) proxy for more proportionate and risk-sensitive capital charges are those incurred by internal model insurers. In our sample on p. 12, we saw that internal model insurers allocated, on average, 3.45% of their total investment assets to securitisation. If we assume that the SII framework was made more proportionate such that the overall EU insurer universe allocated 3.45%, this would represent EUR 132bn in increased demand for securitisation.
- However, this estimate is conservative given that: a) internal model insurers are indirectly affected by SII since supervisors are often unwilling to approve an internal model which significantly deviates from standardised capital requirements (hence the 3.45% allocation is downwards-biased), and b) it does not take account of the increased demand stemming from other regulatory measures that will change the cost-benefit ratio of investing (e.g. Article 5 due diligence requirements).
- Alternatively, if EU insurers were to return to their estimated securitisation allocation in 2010 of 4.91% (see footnote), this would result in an increase of EUR 210bn. And that would represent EUR 210bn of additional financing to the real EU economy, with a multiplier effect on EU households, SMEs, and corporates.
- Thus, we would argue that **the benefits of amending the SII capital charges far exceed the potential cost of re-calibrating the existing framework.**
- And at a time when economic competitiveness and a well-functioning SIU are at the forefront of EU objectives, unlocking the deep pockets of insurance capital to finance the real economy represents a crucial opportunity for growth.

## Unique Value-Add of European ABS in Insurance Investment Portfolios

### Hedge against interest rate risk

Unlike fixed-rate corporate and government bonds, ABS are mostly floating-rate products

### Diversification

ABS offers exposure to a variety of loans with low correlation to other asset classes, enhancing portfolio diversification

### Structural protections

In-built credit enhancement provides protection against first-loss, in contrast to investing in whole loan pools and other secured bonds

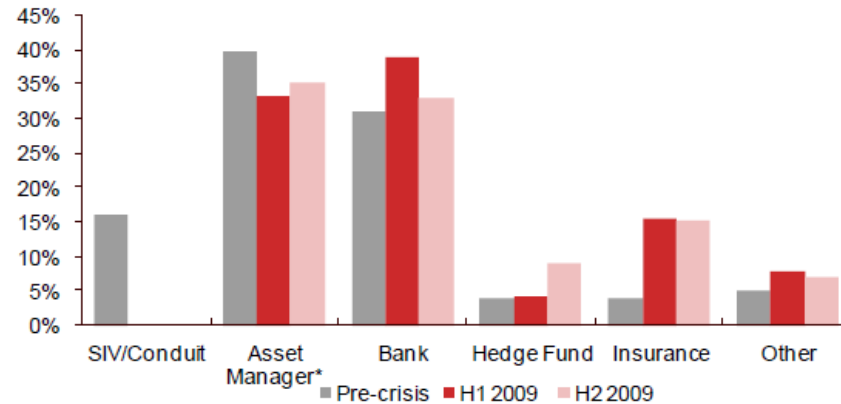
### Versatile risk/return profile

ABS is issued across a wide range of maturities, ratings, and collateral pools, allowing investors to achieve their desired risk/return profile

### Resilience through multiple cycles

European ABS has demonstrated resilience throughout the sovereign debt crisis, COVID-19, and LDI crisis, as well as the GFC

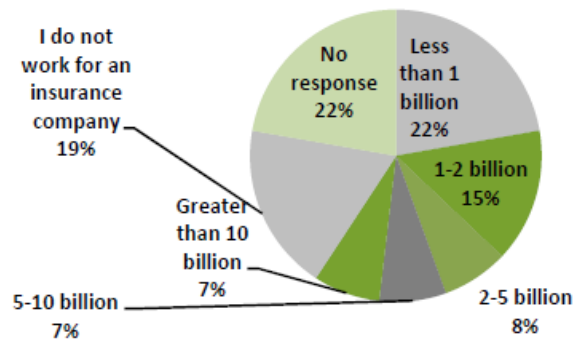
Estimated Distribution of European ABS demand by Investor Type: 2009



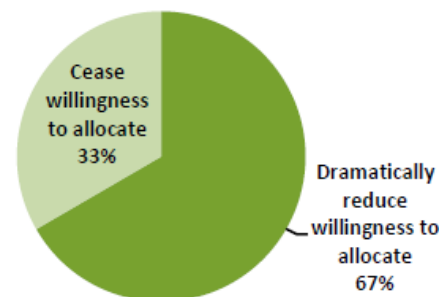
Source: Nomura European ABS Strategy Report (2010)

## Results from AFME 2012 Survey

If you work for an insurance company, what is the size of your current European securitisation investments?



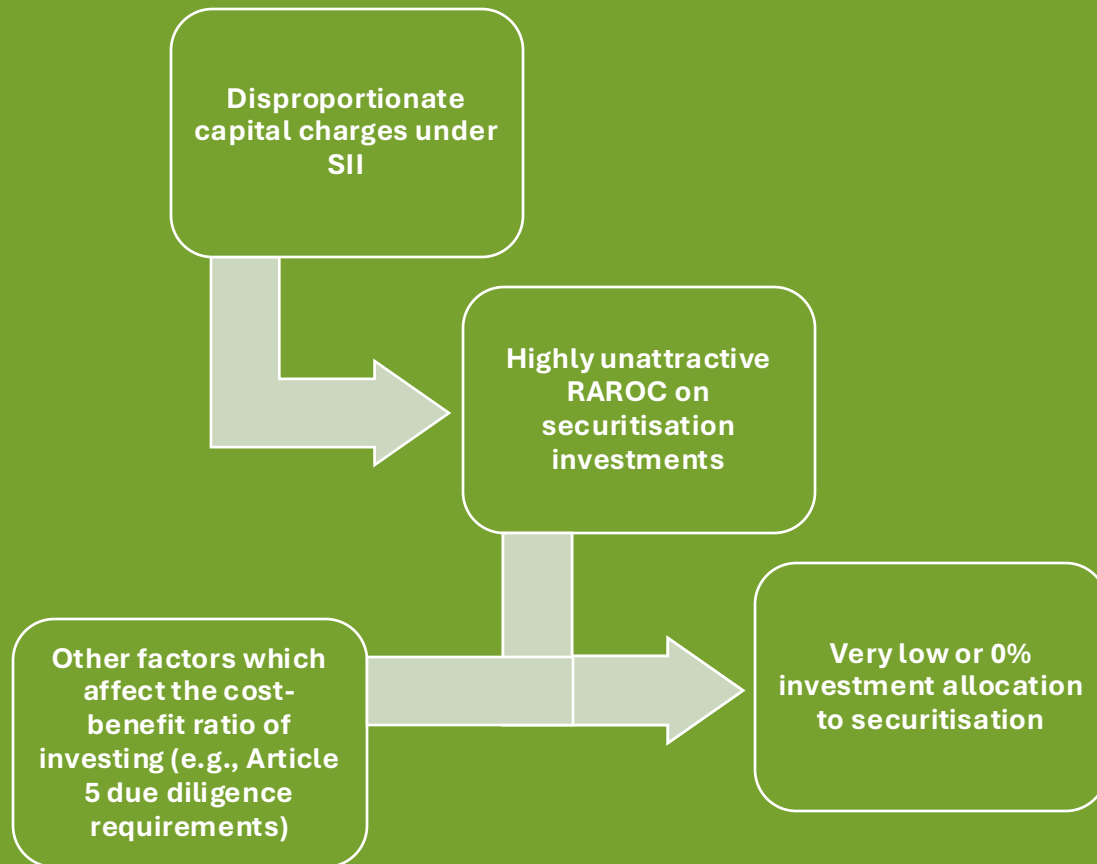
If the SII framework is adopted, how will this affect your or your insurance clients' willingness to allocate funds to European securitisations?



"Key from our point of view is that the securitised market is at extreme risk of loss of all investment from the insurance universe due to Solvency II" – Chris Greener, Former Lead Portfolio Manager of EMEA ABS at BlackRock, in [2014](#)

- Securitisation offers many unique benefits compared to other fixed income asset classes (see leftmost graphic), which makes it a natural fit for insurers' investment portfolios.
- And it is clear that prior to the implementation of SII, insurers played a much larger role in the EU securitisation market compared to today. Whilst market data is scarce, Bank of America Global Research collated data on listed insurers and found that securitisation comprised 8% of their fixed income allocation in 2010. Moreover, Nomura ABS Strategy Reports indicate that insurers represented approximately 15% of the demand for European ABS in 2009.
- Today, securitisation represents just 0.99% of the total investment assets and 1.60% of the fixed income allocation of the EU insurer universe, with the majority being held by a small number of internal model insurers (see p. 12). Our [2012 survey](#) points to the implementation of SII as the primary cause for this disinvestment.
- In April 2012, AFME surveyed 27 European insurance companies and asset managers who collectively held more than EUR 5 trillion in investment assets.
- 100% of respondents indicated that they (or their insurance clients) would be affected by the implementation of the SII framework: 33% suggested that they would completely stop allocating funds to the securitisation sector and 67% responded that they would dramatically reduce their allocation.
- Thus, whilst the JC report interprets the low investment volumes today as a signal of low interest in securitisation amongst insurers, we believe it's directly linked to SII capital charges.

## The link between insurance returns and capital



### RAROC

*Risk-adjusted return on capital*

One of the key drivers of the asset allocation decision for insurers. RAROC represents the risk-adjusted return on the regulatory capital which must be held on a portfolio.

Risk-adjusted return is calculated by adjusting the spread on a tranche by its expected loss. The more capital that needs to be held on a portfolio, the more diluted the RAROC will be, i.e., higher capital charges = lower RAROC.

*On p. 9-12, we demonstrate the empirical relationship between capital charges, RAROC, and insurers' investments in securitisation. To show these relationships, the SII capital charges, US NAIC risk-based capital (RBC) requirements and CRR ERBA capital requirements are applied to the same securitised products.*

*The rationale is that each product has the same risk-adjusted spread which allows for a fair comparison on how the differing capital charges on each product affect the RAROC achieved by European insurers, US insurers and European banks, as well as their resulting investment decisions.*

*The intention is not to compare regulatory regimes in the US and the EU, but rather, to use the US as a proxy for lower capital charges to more clearly show the impact of the SII framework on EU insurers.*



# Issues in the Calibration of Capital Charges

## Current Non-STS Capital Charges

$$stress_i = \min(b_i \cdot dur_i; 1)$$

where  $b_i$  shall be assigned depending on the credit quality step of securitisation position  $i$ , as set out in the following table:

Credit quality step	0	1	2	3	4	5	6
$b_i$	12,5 %	13,4 %	16,6 %	19,7 %	82 %	100 %	100 %

Source: Commission Delegated Regulation [\(EU\) 2018/1221](#)

## 'Type B' Capital Charge Calibration

Credit quality step	0	1	2	3	4	5	6
Risk factor $FUP'_i$	12.50%	13.40%	16.60 %	19.70%	82 %	100%	100%

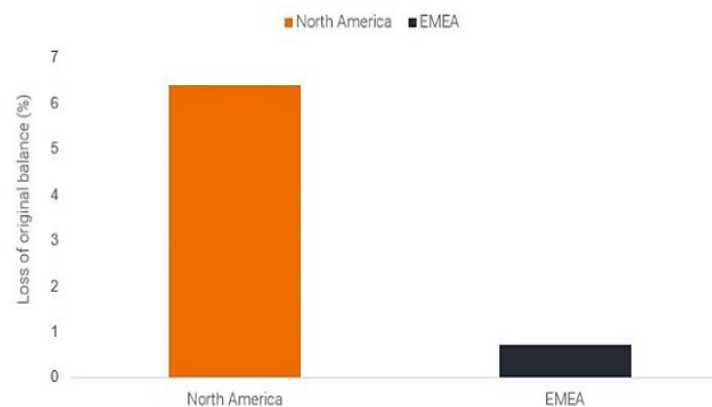
Source: [EIOPA Technical Report](#) on Standard Formula Design and Calibration for Certain Long-Term Investments (2013), p. 141

## Indices considered in calibration: Type A vs. Type B

Type A	Type B
Markit iBoxx Prime RMBS excl. Granite Index Markit iBoxx Eurozone RMBS Index (for AAA) Markit iBoxxEurope ex-UK (for AA to BBB) Markit iBoxx UK Credit Card Index Markit iBoxx SME CLO Index Markit iBoxx Auto Loan Index Markit iBoxx Auto Lease Index R0A0 parsed (Automobile) R0A0 parsed (Credit Card) R0F0 parsed (Automobile) R0F0 parsed (Credit Card) USEA parsed (Credit cards)	Markit iBoxx CMBS Index Markit iBoxx UK Non-Conforming RMBS R0A0 parsed (Home Equity Loan) R0A0 parsed (Utilities) R0A0 parsed (Manufactured Housing) R0F0 parsed (US Home Equity Loan) USEA parsed (CMBS) USEA parsed (Utilities)

Source: [EIOPA Technical Report](#) on Standard Formula Design and Calibration for Certain Long-Term Investments (2013), p. 131

## North America vs. EMEA Securitisations: Loss of Original Balance on 2000-2008 Vintages



Source: Fitch Ratings

- With the introduction of Commission Delegated Regulation [\(EU\) 2018/1221](#), capital charges were revised for STS, whilst EIOPA's 2013 calibration for 'Type B' securitisations was adopted for non-STS.

- For several reasons, however, **the 2013 calibration is an inappropriate match for non-STS capital charges:**

- Several US ABS indices were used as part of the calibration of Type B capital charges. For instance, R0F0 (BofA US Floating Rate ABS Index) and R0A0 (BofA US Fixed Rate ABS Index) were included to capture the empirical 99.5 Value at Risk (VaR) of the sub-prime experience from 2007-2013. Whilst EIOPA assigned a 5% weighting to US securitisations, these assets performed far worse than their European counterparts from both a price and credit perspective, making it likely to disproportionately affect the 2013 calibration. Moreover, it makes little sense for non-STS capital charges to reflect the performance of the 2007-2013 US sub-prime market in the first.

- The Type B calibration was primarily intended to capture the empirical 99.5 VaR of three asset classes: US sub-prime RMBS, UK non-conforming RMBS, and CMBS (see p. 129 of the [EIOPA report](#)). Yet, the non-STS market is much more diverse, consisting of CLOs, certain SME ABS, project finance securitisations, digital infrastructure ABS, etc. Using just three asset classes (one of which is distant from market realities today) to calibrate capital charges does not reflect the full performance of the non-STS segment.

- The current non-STS capital charges, unlike for STS, do not differentiate between senior and non-senior tranches. Further risk sensitivity is therefore needed.

# Issues in the Calibration of Capital Charges

Current SII Calibration for Non-Senior STS:

Credit quality step	0		1		2		3		4		5 and 6		Unrated	
Modified duration (years)	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i
Up to 5	-	2.8	-	3.4	-	4.6	-	7.9	-	15.8	-	26.7	-	26.7
5 to 10	14	1.6	17	1.9	23	2.3	39.5	4.7	79	8.8	100	-	100	-
10 to 15	22	1.6	26.5	1.5	34.5	1.6	63	3.2	100	-	100	-	100	-
15 to 20	30	1.6	34	1.5	42.5	1.6	79	3.2	100	-	100	-	100	-
More than 20	38	1.6	41.5	1.5	50.5	1.6	95	1.6	100	-	100	-	100	-

AFME/RCL Calibration for Non-Senior STS:

Credit quality step	0		1		2		3		4		5 and 6		Unrated	
Modified duration (years)	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i
Up to 5	-	1.3	-	1.7	-	2.6	-	4.6	-	8.3	-	13.8	-	5.5
5 to 10	6.5	0.9	8.3	0.9	12.9	1.3	23.1	2.8	41.5	4.6	69.2	7.8	27.7	3.1
10 to 15	11.0	0.9	12.8	0.9	19.4	0.9	37.1	1.8	64.5	3.3	100.0	-	43.4	2.2
15 to 20	15.5	0.9	17.3	0.9	23.9	0.9	46.1	1.8	81.0	0.9	100.0	-	54.4	2.2
More than 20	20.0	0.9	21.8	0.9	28.4	0.9	55.1	0.9	85.5	0.9	100.0	-	65.5	0.9

Source: [2022 RCL Report](#)

Current SII Calibration for Non-STS:

Credit quality step	0		1		2		3		4		5 and 6		Unrated	
Modified duration (years)	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i
Any modified duration	-	12.5	-	13.4	-	16.6	-	19.7	-	82	-	100	100	-

AFME/RCL Calibration for Non-STS:

Credit quality step	0		1		2		3		4		5 and 6		Unrated	
Modified duration (years)	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i
Up to 5	-	1.5	-	2.0	-	3.1	-	5.5	-	9.9	-	16.6	-	6.6
5 to 10	7.5	1.1	10	1.1	15.5	1.5	27.5	3.3	49.5	5.5	83	9.3	-	3.8
10 to 15	13	1.1	15.5	1.1	23	1.1	44	2.2	77	4.0	100	-	36.0	2.6
15 to 20	19	1.1	21	1.1	28.5	1.1	55	2.2	97	1.1	100	-	56.3	2.6
More than 20	24	1.1	26.5	1.1	34	1.1	66	1.1	100	-	100	-	71.0	1.1

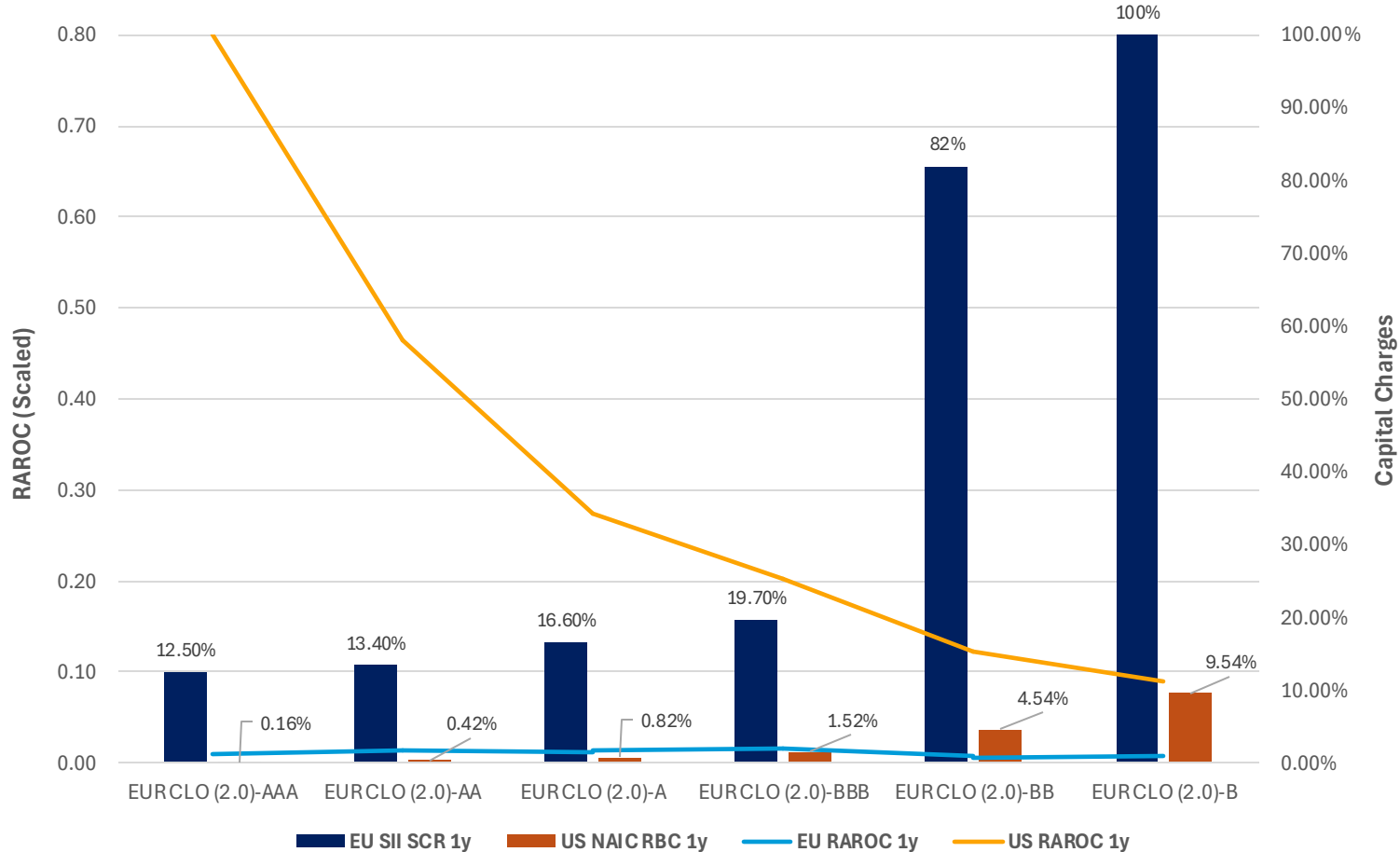
Source: [2022 RCL Report](#)

- In 2022, AFME commissioned a [study](#) by Risk Control Limited (RCL) which replicated EIOPA's calibration methodology to calculate the 99.5 VaR and the resulting capital charges for senior STS, non-senior STS, and non-STS securitisations. The difference was that RCL used an expanded dataset on all active European ABS from 2010 up to mid-2021.
- The study concludes that the SII framework marginally overestimates VAR for senior STS. The largest differences however are for non senior STS and non STS.
- SII capital charges for non-senior STS are around 2x higher than what is implied by RCL's analysis.
- Moreover, the SII capital charges for non-STS are 2 - 8x higher than what was found by RCL's study.
- This suggests that **the current SII calibration significantly overestimates the loss in value in the 99.5% scenario for both non-senior STS and non-STS securitisations.**



## Impact of SII Capital Charges on Insurers

CLOs: US vs. EU Insurers 1y RAROC



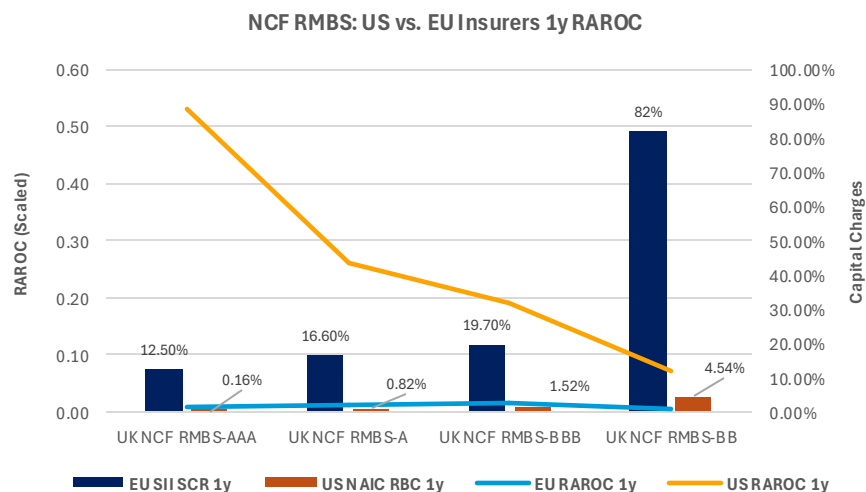
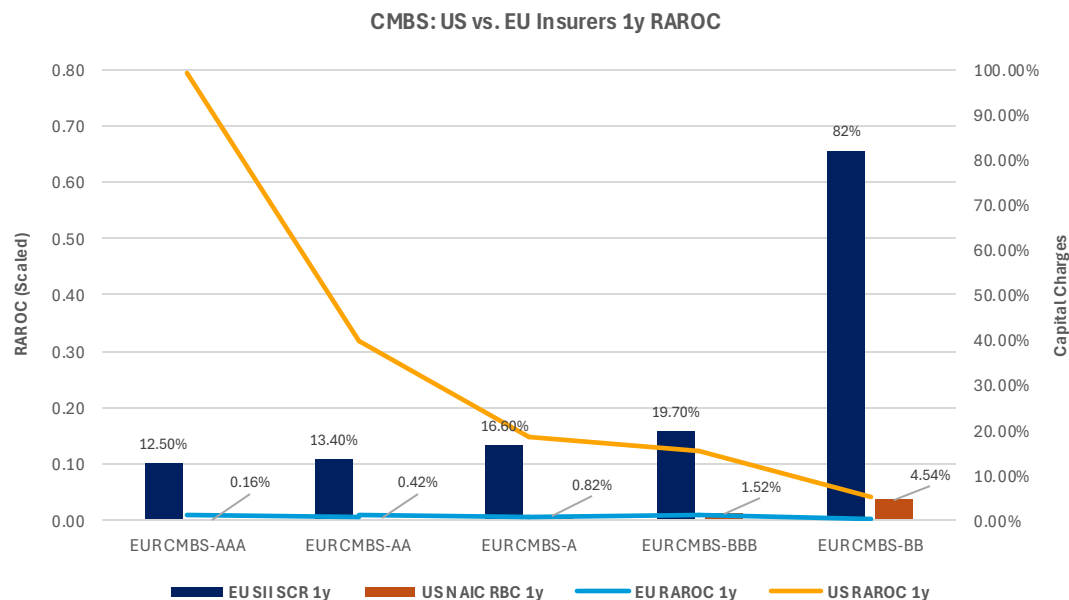
Data source: Bank of America Global Research

Note: for simplicity, a 1y duration is assumed and the RAROC shown is scaled.

### Case Study: CLOs

- This chart shows the impact of differing capital charges (EU SII SCR and US NAIC RBC) on the resulting 1y RAROC yielded by EUR CLOs.
- On AAA tranches, for example, the EU SII SCR 1y is 12.50%, 78.1x higher than the US NAIC RBC of 0.16%.
- This results in an EU RAROC 1y which is 78.4x lower than the US RAROC 1y.
- **Evidently, SII capital charges significantly reduce the attractiveness of securitisation investments from a return on capital standpoint.**
- CLOs are actively managed instruments collateralised by a pool of leveraged loans. Yet, the 1y SCR on a B-rated EUR leveraged loan is 7.5%, in comparison to 100% (over 13x higher) for a B-rated EUR CLO. This is, therefore, one example of **the risk insensitivity within the SII framework.**

## Impact of SII Capital Charges on Insurers



Data source: Bank of America Global Research

Note: for simplicity, a 1y duration is assumed and the RAROC shown is scaled.

### Case study: CMBS and NCF RMBS

- As one can see, these charts have a very similar shape and demonstrate the same themes as the CLO case study:

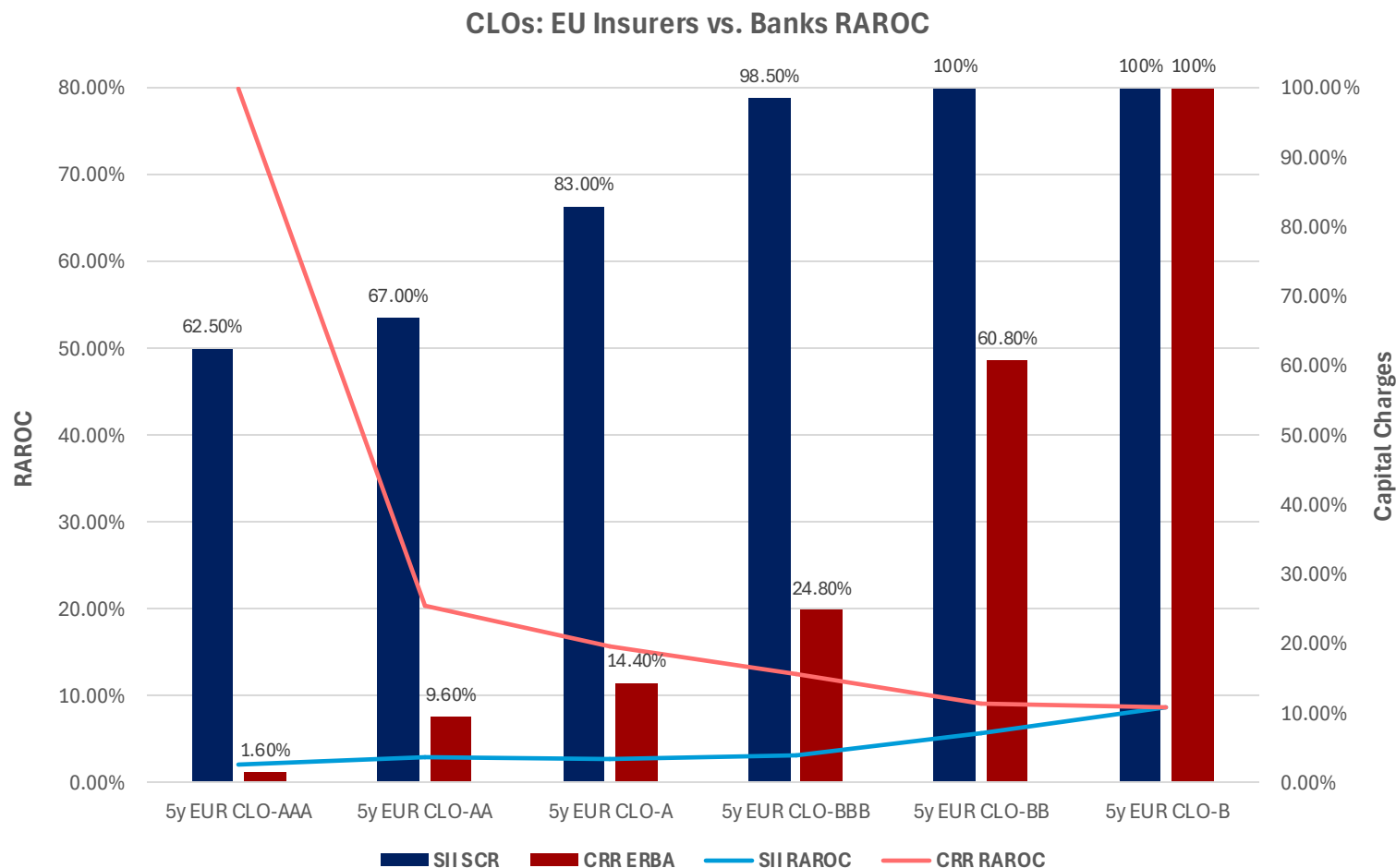
### Unattractive RAROC achieved by EU insurers

- CMBS: on single A tranches, the 1y SII SCR is 16.60% vs. NAIC RBC of 0.82%. This results in an EU RAROC that is over 20x lower than the US RAROC.
- RMBS: on BB tranches, the 1y SII SCR is 82% vs NAIC RBC of 4.54%. This results in an EU RAROC that is over 18x lower than the US RAROC.

### Risk insensitivity of the SII framework

- CMBS: the 1y SCR on a senior prime CRE loan is 3%, in comparison to 12.5% (over 4x higher) for a EUR AAA CMBS tranche.
- NCF RMBS: an 80% LTV whole loan residential mortgage pool (unrated, long duration, illiquid with no credit enhancement, where investors suffer the first and every loss) carries a SCR of 3% over its life, in comparison to a 1y SCR of 13.4% (or a 5y SCR of 67%) on a UK AA NCF RMBS tranche (rated, medium duration, liquid, credit enhanced, protected from first loss).

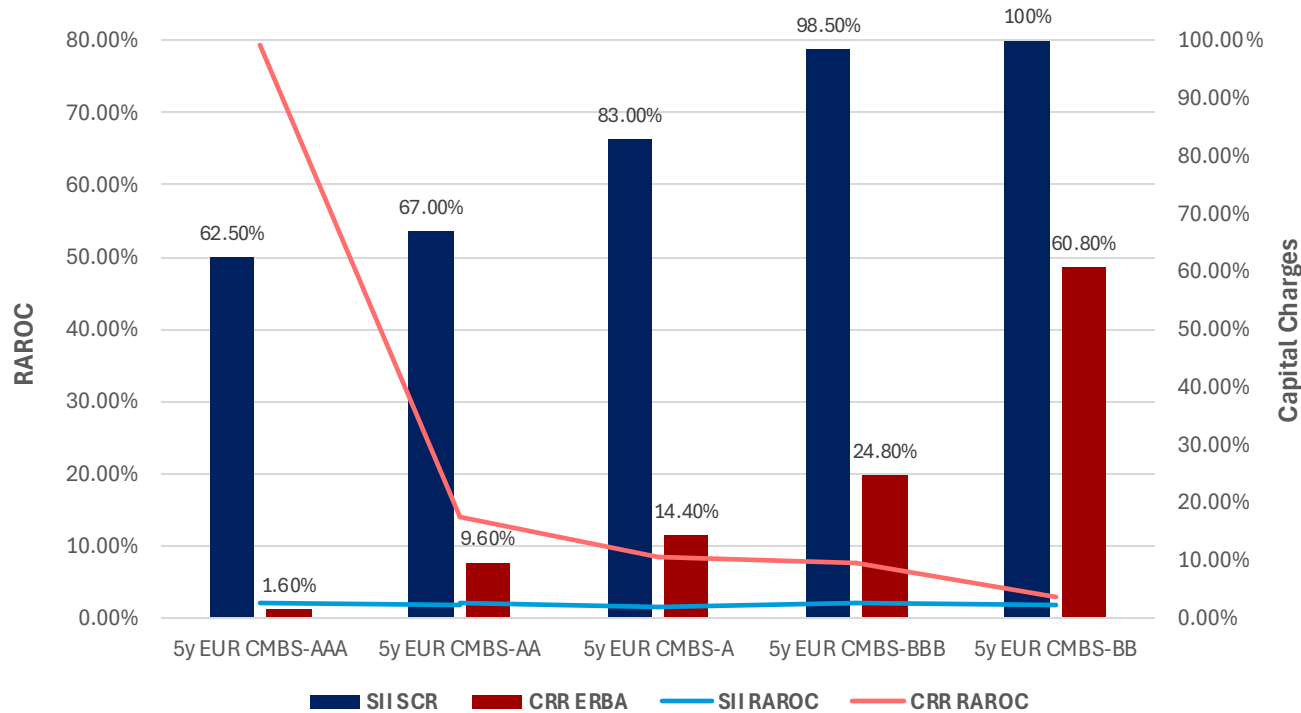
## Unintended Effects of the SII Framework



Data source: Bank of America Global Research

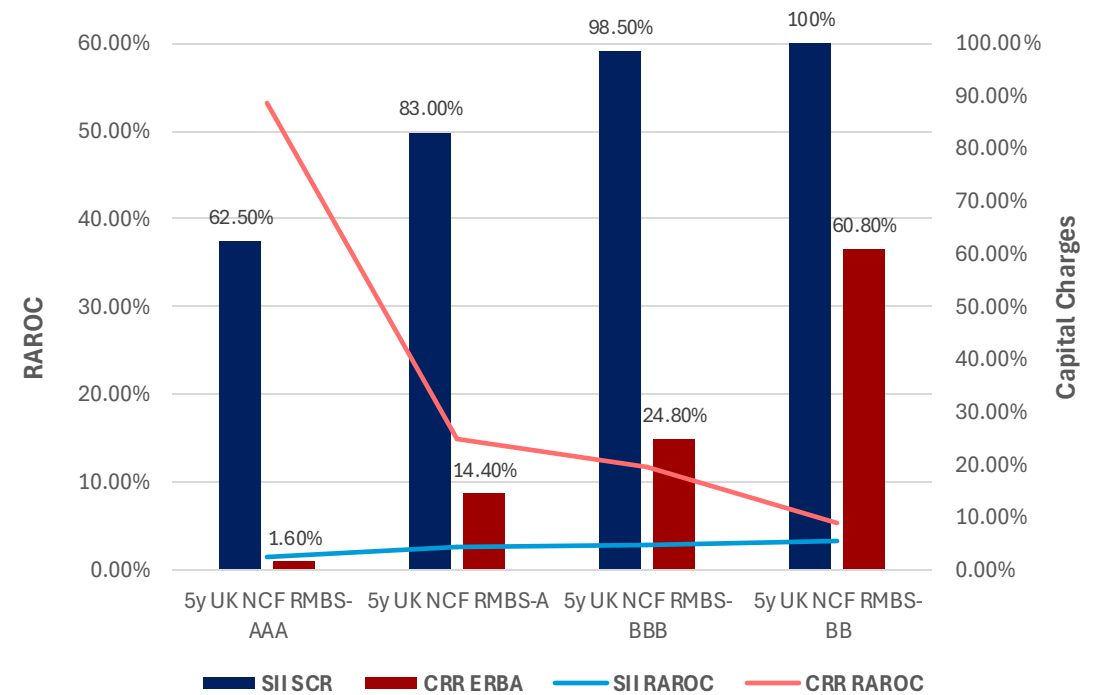
- Once we relax the 1y duration simplifying assumption, we see additional real-world implications of the SII framework.
- The disproportionately high capital charges on investment grade tranches (AAA to BBB) make it uneconomical to invest in these segments from a return on capital perspective. However, risk-adjusted spreads continue to increase down the capital structure whilst capital charges become capped at 100% at BB tranches and below. As a result, and as shown in the chart, EU insurers achieve the highest RAROC on single-B tranches and this is the segment where they might still see relative value in investing. On p. 14, we examine CMBS and NCF RMBS, which exhibit similar themes.
- **Evidently, the unintended consequence of the SII framework is that it makes junior mezzanine and equity tranches comparatively more attractive for insurers to invest in.** The underlying cause is risk insensitivity – on the most senior 5y CLO AAA tranche, the SII SCR is 62.5%, which is around 1.5x higher than the SCR on type 1 equities. If the SII framework were more closely aligned with real-world risk, we would see significantly lower capital charges on investment grade tranches. In turn, the shape of the (blue) SII RAROC curve would align more closely with the (red) CRR RAROC curve, which would be positive for financial stability, given that it would result in insurers allocating capital to the least risky segment (investment grade tranches) rather than junior mezzanine and equity tranches.

**CMBS: EU Insurers vs. Banks RAROC**



Data source: Bank of America Global Research

**NCF RMBS: EU Insurers vs. Banks RAROC**



Data source: Bank of America Global Research

# Impact of SII Capital Charges on the Investment Decision

Total Investments of EU Insurer Universe (EUR Million)				Total Securitisation Investments of EU Insurer Universe (EUR Million)			
5,362,928				52,862			
Internal Model Insurers				Standard Formula Insurers			
Insurer	Total Investments (EUR million)	Securitisation Investments (EUR million)	Investment Allocation to Securitisation (%)	Insurer	Total Investments (EUR million)	Securitisation Investments (EUR million)	Investment Allocation to Securitisation (%)
<a href="#">Allianz</a>	519,756	5,083	0.98%	<a href="#">CNP Assurances</a>	301,675	2,989	0.99%
<a href="#">AXA</a>	429,986	22,459	5.22%	<a href="#">Credit Agricole Assurances</a>	283,545	55	0.02%
<a href="#">Generali</a>	315,264	946	0.30%	<a href="#">BNP Paribas Cardif Group</a>	149,140	0	0.00%
<a href="#">Munich Re</a>	207,706	3,756	1.81%	<a href="#">Poste Italiane Groupe des Assurances du Crédit Mutuel</a>	143,745	0	0.00%
<a href="#">HDI Group</a>	129,772	3,119	2.40%	<a href="#">Sogecap</a>	112,995	0	0.00%
<a href="#">SCOR Group</a>	21,048	1,670	7.93%	<a href="#">Aema Groupe</a>	96,032	29	0.03%
<a href="#">AIG Europe S.A.</a>	7,596	126	1.66%	<a href="#">R+V Versicherung</a>	93,890	0	0.00%
<a href="#">Chubb Europe</a>	6,329	461	7.28%	<a href="#">Intesa Sanpaolo Vita</a>	86,000	1,169	1.36%
AVERAGE	-	-	3.45%	<a href="#">VidaCaixa</a>	82,125	37	0.04%
SUM	1,637,457	37,619	-	<a href="#">BPCE Assurances</a>	65,638	0	0.00%
AS % OF EU INSURER UNIVERSE	30.53%	71.17%	-	<a href="#">Huk Coburg</a>	59,778	48	0.08%
				<a href="#">Provinzial Group</a>	38,896	14	0.04%
				<a href="#">Mapfre</a>	38,214	0	0.00%
				<a href="#">Sampo Group</a>	33,090	18	0.06%
				<a href="#">Nordea Life</a>	15,861	0	0.00%
				<a href="#">Grupo Mutua Madrilenia</a>	14,283	0	0.00%
				<a href="#">Cooperatie VGZ</a>	9,958	2	0.02%
				AVERAGE	3,571	0	0.00%
				SUM	-	-	0.15%
				AS % OF EU INSURER UNIVERSE	1,628,436	4,360	-
					30.36%	8.25%	-

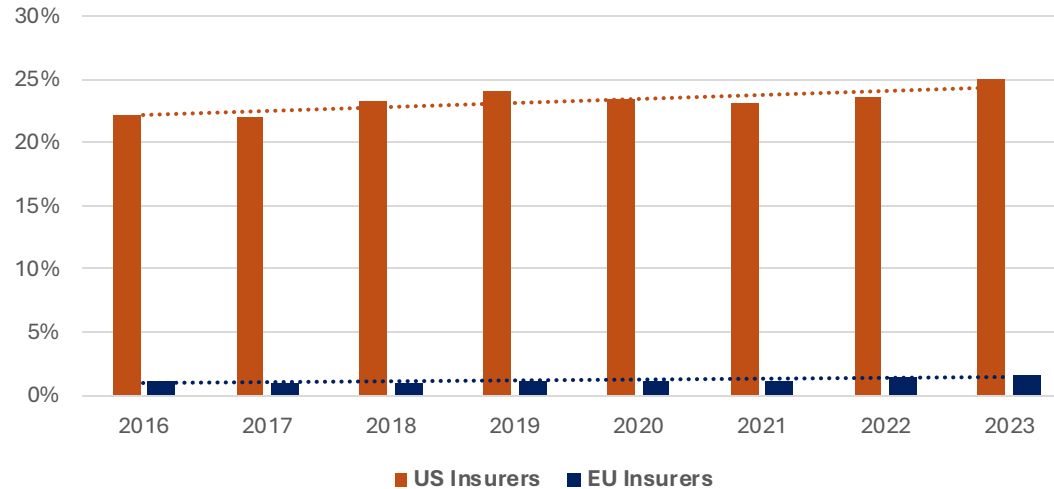
Data source: Insurers' 2023 SFCR Reports and EIOPA Insurance Statistics  
Note: all values are SII values

- To provide additional empirical evidence that capital charges do matter to EU insurers' investment activity in securitisation, we compare the investments of standard formula insurers and internal model insurers. The latter group faces more risk-sensitive capital charges compared to the former<sup>3</sup>, since an internal model gives insurers the ability to calculate capital charges using statistical tools that more closely simulate the unique risks that they are exposed to.
- In 2023, the 8 internal model insurers in our sample represented 30.53% of the investment assets of the EU insurer universe but 71.17% of the securitisation investments. Their average investment allocation to securitisation was 3.45%.
- On the other hand, the 18 standard formula insurers in our sample represented 30.36% of the total investment assets of the EU insurer universe but only 8.25% of the securitisation investments. Their average investment allocation to securitisation was just 0.15%. Two standard formula insurers, in particular, are the driving force behind these numbers.
- One could argue that internal model insurers are larger and thus have the critical mass to invest more in securitisation. However, we see a clear disparity between the securitisation allocations of standard formula vs. internal model insurers of similar size. For instance, SCOR Group (EUR 21bn AUM) and Chubb Europe (EUR 6bn AUM) both allocated over 7% of their investment portfolios to securitisation, whereas standard formula insurers in the EUR 3bn – 33bn AUM range allocated virtually 0%.

<sup>3</sup> However, the SII framework still impacts internal model insurers indirectly, given that supervisors are often unwilling to approve an internal model which produces outputs that significantly deviate from standardised capital requirements.

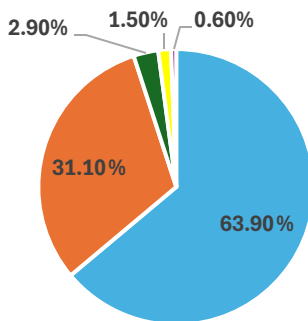
## Impact of SII Capital Charges on the Investment Decision

Securitisation Investments as a % of Total Bond Portfolios

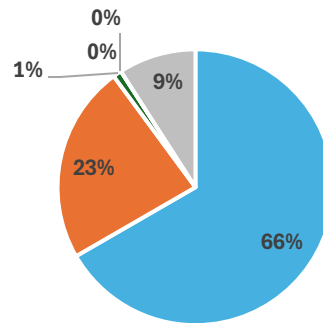


Data Source: US NAIC Capital Markets Bureau Special Reports and EIOPA Insurance Statistics

Credit Quality of US Insurers' Bond Portfolios, YE 2023



Credit Quality of EEA Insurers' Bond Portfolios, YE 2023



■ AAA to A ■ BBB ■ BB ■ B ■ Below B ■ NR

Data source: US NAIC Capital Markets Bureau Special Reports and EIOPA European Insurance Overview  
Note: CQS and NAIC Designations were mapped to arrive at credit rating grades

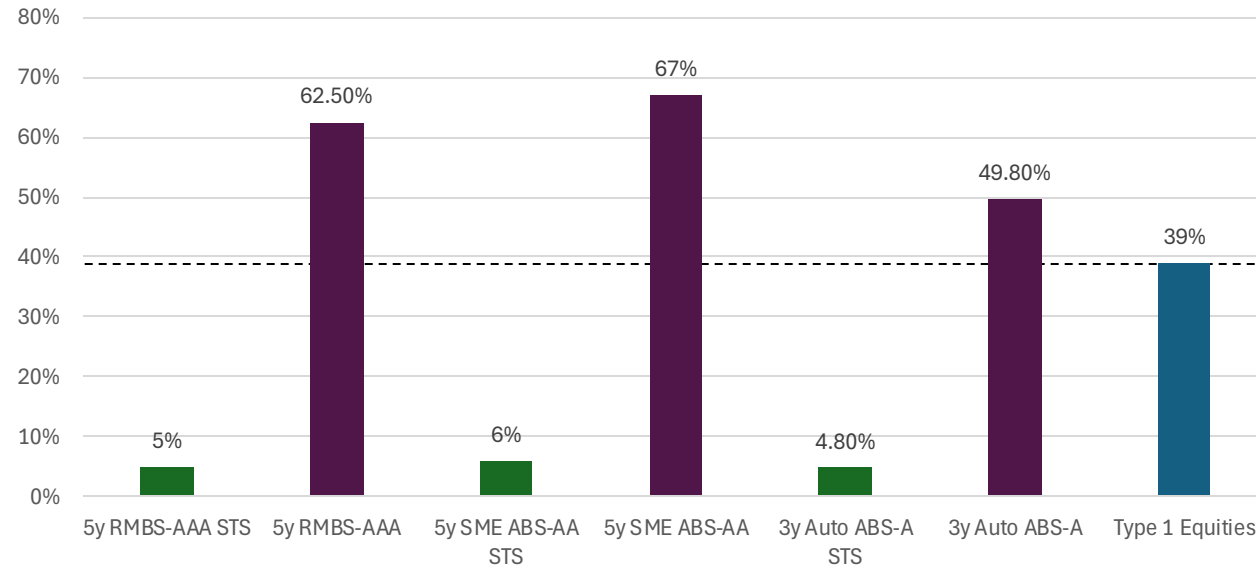
- The previous section demonstrated the inverse relationship between capital charges and RAROC. Now we see what impact this has on the third piece in the puzzle: the real-world investment allocations by insurers.
- **There is clearly an inverse correlation between capital charges and insurance investments in securitisation.** US insurers face comparatively lower capital charges and allocated 25.04% of their bond portfolios to securitisation in 2023, whilst EU insurers face comparatively higher capital charges and allocated just 1.60%.
- It is also important to note that the majority of this 1.60% figure is made up by internal model insurers (see p. 12).
- One could argue that the much higher US allocation could be due to certain structural differences in US and EU insurers' risk/return appetite. However, the credit quality of their respective bond portfolios is quite similar<sup>2</sup>, indicating little evidence of such structural differences.

<sup>2</sup> Although it is difficult to make an exact comparison given the 9% of EU insurers' holdings which are not rated (NR).

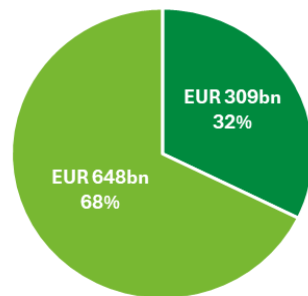


# Regulation-Induced Cliff Risk and the Low Take-up of STS Investments

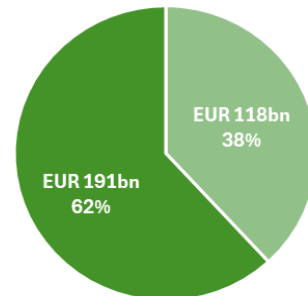
SII SCR: STS vs. Non-STS vs. Global Equity



Total European Outstanding by STS / Non-STS, YE 2024



Total STS Outstanding by Placed / Retained, YE 2024



■ STS ■ Non-STS

■ Placed ■ Retained

Data source: J.P. Morgan International Securitisation Research

- The JC report suggests that “*although the treatment of Senior STS in terms of capital requirements is broadly similar to asset classes such as covered bonds...only small amounts are invested by (re)insurers in this particular asset class*” (p.25).
- Indeed, stakeholders who argue that the SII framework does not affect insurers’ securitisation investments often highlight the low take-up of STS investments despite their lower capital charges, with insurers instead favouring the non-STS segment which carries much higher capital charges.
- However, it is important to understand why insurers’ take-up of STS has been low:

**1. Regulation-induced cliff effects:** if an STS position loses its STS status (which does sometimes happen in practice), insurers will suddenly need to hold 10x – 12x more capital to maintain regulatory compliance. This creates significant regulatory risk that stems from one part of SII framework being risk-sensitive (senior STS) and the other part being risk insensitive (non-senior STS and non-STS).

Case Study: on a 5-year EUR 100m AAA STS RMBS position, insurers are required to hold EUR 5m in regulatory capital. However, if this position loses its STS status, they must increase the capital held to EUR 62.5m. Conversely, if the insurer invested EUR 100m in type 1 equities, they would earn equity returns whilst being required to hold just EUR 39m in regulatory capital (with no risk of this capital requirement increasing over the holding period).

**2. Availability of STS:** STS represents only 32% of outstanding securitisation volumes. Of total STS outstanding, that which is available to investors for purchase (i.e. placed STS outstanding) is lower, standing at EUR 118bn. Thus, part of the issue simply stems from the low availability of STS in the market.