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Risk Retention in the European Securitisation market: Skimmed by Skin-in-the-Game Methods?

7th Annual Workshop of ESCB
Research Cluster 3



23-25 November 2023

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Overview

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1

Introduction

European regulation has sought to improve *skin-in-the-game*

- Following the Global Financial Crisis investor confidence in the securitisation market plummeted.
- The risk retention rule for securitisations came into force in the EU as of 2011 for new securitisations with the **purpose to better align the interest of the originator and investor**.
- The rule states that the originator, sponsor or original lender should, at all times, **retain a material net economic interest of no less than 5%** in the securitisation transaction via one of the following methods:

1. First loss tranche (FLT)

At least 5% of the total nominal value of the **equity tranche** should be retained

2. First loss exposure (FLE)

At least 5% of the total nominal value of the **securitised exposure** is retained

3. Vertical slice (VES)

At least 5% of the nominal value of **each of the tranches** should be retained

4. On-balance sheet (OBS)

Randomly selected portion of the **exposures** of at least 5% of the nominal value are to be retained

Should all regulatory risk retention methods be seen as equally aligning incentives?

- European regulation is based on the assumption that all risk retention methods **homogenously align the incentives and interests between originators and investors.**
 - This seems surprising, given that these methods differ in the way they align the incentive between the originator and investor.
- Consequently, we seek to investigate three research questions:

1

Do **investors differentiate in their pricing** between the different risk retention methods?

2

Were investors informed, via the **credit rating**, about the differences in risk profiles of securitisations with different methods?

3

Are **capital relief motives or deal characteristics** influencing the **likelihood of originators** for choosing a specific method?

2

Risk retention in securitisations

Regulation treats all risk retention methods equally while literature provides evidence for existing differences...



Regulation

- **Article 205 of the CRR** sets forth the risk retention rules for securitisations issued before 1 January 2019 and all securitisations issued thereafter should follow the **Regulation (EU) No 2017/2402***.
- The requirements relating to the risk retention pursuant to Article 6(7) of Regulation (EU) No 2017/2402 are specified in the **EBA final draft regulatory technical standards**.



Literature

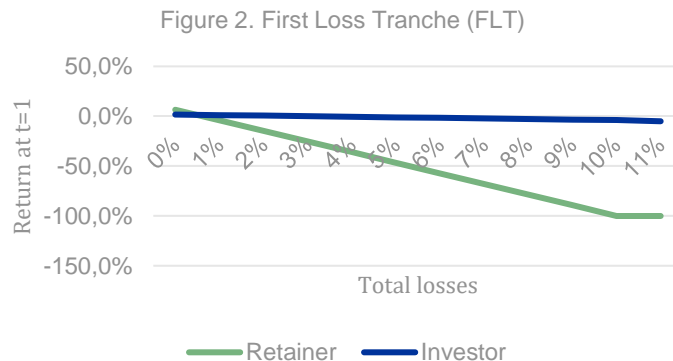
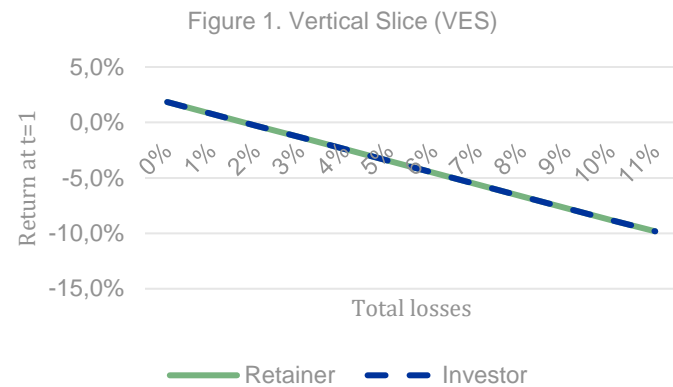
Previous literature provides rather mixed empirical evidence:

- Some (e.g. Kiff and Kisser, 2014; Malekan and Dionne, 2014; Vanasco, 2017) argue that the **FLT method is best aligning** the interest between the tranche retainer and investors.
- While others (e.g. Bektić and Hachenberg, 2021; Tavakoli, 2008) argue that the **VES method is more suitable**.

* Regulation (EU) No 2017/2402 of the European Parliament and of the Council of 12 December 2017 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation, and amending Directives 2009/65/EC, 2009/138/EC and 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012.

...when exploring the different retention methods theoretically we also find considerable differences

- To demonstrate differences in risk profiles, we **simulate the return per loss rate** of both the retained part and the part sold to investors.
- Considering the expected returns, **incentives alignment** between retainer and investor is **perfect for VES** (figure 1), **closely aligned for OBS**, **rather divergent for FLE** and **very divergent for FLT** (figure 2).
- But, as the retainer takes the first losses in the FLT method, it might also be seen as a signal of confidence for the market.



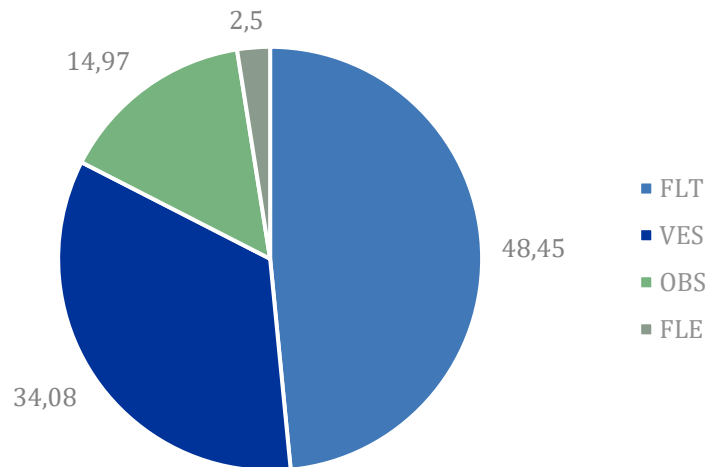
3

Data & Methodology

We analyse a wide universe of securitisation transactions with a total value of €957 billion...

- We use a unique dataset, obtained from **Bloomberg**, on **tranche-level data** of European securitisation transactions issued and sold between **2011 and 2021**.
- Eliminating tranches with missing information, our final sample comprises **2157 tranches** with a total value of **€957 billion**.
- The FLT method was used most, followed by VES and OBS. Only in a few occasions FLE is used (Figure 3).

Figure 3. Risk retention methods (% of total sample)



We apply several (ordered) logit and ordinary least squares (OLS) models to test our research questions

Three Research Angles

1

$$\begin{aligned} \text{Spread}_{j(t)} &= \beta_0 + \beta_1 \text{Risk Retention Methods}_{i(t)} \\ &+ \text{Credit Rating, Year, and Security Type Controls}_{ij(t)} \varepsilon_{ij(t)} \end{aligned}$$

Investor's perspective
(Spread at issuance)

2

$$\begin{aligned} \text{Credit Rating}_{j(t)} &= \beta_0 + \beta_1 \text{Risk Retention Methods}_{i(t)} \\ &+ \text{Credit Rating, Year, and Security Type Controls}_{ij(t)} \end{aligned}$$

Credit Rating Agencies
(Credit Ratings)

3

$$\begin{aligned} \text{FLT vs. Other (VES, OBS, FLE)}_{i(t)} &= \beta_0 + \beta_1 \text{STS Compliant}_{i(t)} + \beta_2 \text{Deal Characteristics}_{i(t)} \\ &+ \text{Credit Rating, Year, and Security Type Controls}_{ij(t)} \end{aligned}$$

Originator's choices
(Capital Relief & Deal Characteristics)

These are simplified formulas, for the complete models, please see the paper.

4

Results

Investors adjust their pricing at issuance, beyond the credit rating, for tranches with different risk retention methods...

- Controlling for the credit rating, **spread at issuance is significantly higher for FLT**, as denoted by the negative significant coefficients of OBS and VES (Table 1).
- In line with our expectations; the **loss and return profile of the OBS and VES method seem to (mathematically) best align the interest** between the retainer and investor over time (i.e. monitoring of the pool exposures).

Table 1: Ordinary least squares regressions of Risk Retention Methods on Spread at Issuance (floating-rate tranches only)*

	Dependent = Spread at Issuance (bps)
	(1)
VES	-27.45** (-2.40)
OBS	-36.08*** (-4.61)
FLE	-6.85 (-0.48)
Controls	Y
Observations	354

➤ We find that investors do not value the different risk retention methods as equally risky.

* We use FLT as the baseline as this method is most used in our sample.

Credit rating agencies assign better ratings to securitisations using the FLT method

- A review of rating methodologies and discussions with CRAs suggest that current **rating methodologies do not consider the methods** as an explicit input factor.
- Our findings show that **credit ratings are on average worse for the VES method** than for tranches with the FLT method (Table 2).
- This suggests that originators are more likely to use the **FLT method** when they have **greater confidence in the overall deal**, i.e. for deals with overall lower default risk.

Table 2: Ordered logit regressions of Risk Retention Methods on Credit Rating*

	Dependent = Credit Rating				
	Full sample	Moody's	S&P	DBRS	Fitch
	(1)	(2)	(3)	(4)	(5)
VES	0.69*** (6.18)	0.53*** (3.40)	1.27*** (6.54)	0.38*** (2.83)	0.30 (1.37)
OBS	-0.20 (-1.63)	-0.11 (-0.71)	-0.02 (-0.07)	-0.15 (-0.91)	-0.45** (-2.12)
FLE	0.45* (1.74)	1.17** (2.26)	1.46*** (3.48)	0.02 (0.09)	-0.03 (-0.07)
Controls	Y	Y	Y	Y	Y
Observations	2,157	1,183	856	1,385	744

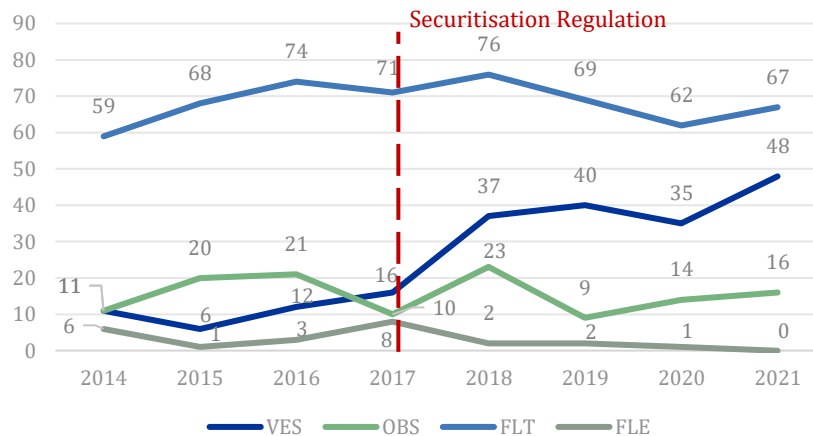
➤ Originators seem to use FLT for lower credit risk deals and as a signal of confidence.

* We use FLT as the baseline as this method is most used in our sample.

VES is becoming more popular since the introduction of the Securitisation Regulation

- We find a significant **increase in the number of newly issued securitisation deals with the VES** method from 2017 onwards.
- For the other methods we observe a relative stable trend.
- The introduction of the Sec Reg may have increased the confidence in the market and thus there might be **less need for banks to signal confidence** to the market by choosing the FLT method.

Figure 3. Number of deals sorted by risk retention methods and year*



*It took some time for issuers to comply with the rule, this is why we observe information on the methods mainly as of 2014 onwards.

When choosing a method, originators consider capital relief benefits and deal complexity

- Although one might expect that the **preference for VES is related to the simple, transparent and standardised (STS) criteria** (part of Sec Reg), we find **no significant relation** between the STS criteria and VES (Table 3).
- But we do find that originators are **more likely to choose the OBS method (over FLT) when a deal is STS compliant**.
- We also find that originators consider **deal characteristics** when choosing a method. For example, originators are less likely to choose the FLT method when the deal is more complex.

Table 3: Logit regressions of Risk Retention Methods on STS Compliant (deal-level)*

	Dependent = FLT vs. Other (VES, OBS, FLE)			
	VES vs. FLT		OBS vs. FLT	
	2011-2021	2011-2021	>2018	2011-2021
	(1)	(2)	(3)	(4)
STS Compliant	-0.14 (-0.46)	1.05** (2.43)	1.96*** (3.36)	-1.57 (-0.76)
No. of Tranches	0.23*** (3.92)	0.23*** (2.95)	0.72*** (4.27)	0.50*** (2.80)
Log Transaction Size	0.29** (2.10)	0.20* (1.71)	0.49** (2.06)	0.02 (0.05)
Controls	Y	Y	Y	Y
Observations	703	606	302	318

➤ We show that originators base their choice for a particular method on **factors that go beyond the alignment of incentives**, such as **capital relief benefits** for the originators or **deal complexity**.

* We use FLT as the baseline as this method is most used in our sample.

Skimmed by Skin-in-the-Game methods?

Unsurprisingly there are **differences in the way risk retention methods align incentives.**

It seems that:

- Originators base their choice on various considerations incl. capital relief benefits and deal complexity.
- Credit rating agencies signal higher inherent credit risks via worse ratings for VES transactions.
- **Investors consider the on average better rating for FLT** (Table 2) but **demand compensation** for the **unaligned incentives** that come with the FLT method (Table 1).
 - The additional risks might be caused by the higher likelihood of **insufficient portfolio management** over time as well as the **higher split ratings for FLT** (Table A1).

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Conclusion

We show that risk retention methods should not be treated equally...



We suggest that the **different risk profiles** associated with the various methods **should be taken into consideration by regulators and supervisors.**



We recommend **further research to determine the optimal design of the retention methods**, to achieve similar levels of incentive alignment.



We also recommend **future research to further explore why banks select a particular risk retention method**, for example by looking at their balance sheet information and business model.

Thank you for your attention!

Feel free to reach out to me via vivian.van_breemen@ecb.europa.eu



Annex

Credit rating agencies experience rating disagreements depending on the tranche's risk retention method

- Our results show that **rating disagreements amongst CRAs are less likely, on average, for the VES and FLE method** than for the FLT method (Table A1).
- Tranches with the FLT method have **lower credit risk** (Table 2), but **CRAs seem to misalign more** in their credit risk assessment (Table A1).

Table A1: Ordered logit regressions of Risk Retention Methods on Rating Discrepancy*	
	Dependent = Rating Discrepancy
	Full sample
	(1)
VES	-0.52*** (-3.74)
OBS	-0.18 (-1.13)
FLE	-1.05*** (-3.43)
Controls	Y
Observations	1,865

- It might be that **investors consider the on average better rating for FLT** (Table 2) but compensate for the **additional risks** that come with the FLT method by increasing the spread at issuance (Table 1).
- The additional risks might be caused by the higher likelihood of **insufficient portfolio management** over time as well as the **higher split ratings for FLT** (Table A1).

* We use FLT as the baseline as this method is most used in our sample.

Robustness analyses

- We show that **our results are robust** when controlling for *STS Compliant*, *Single Originator*, *GDP Growth Rate* and *Country of Risk*.

Table A2. Robustness Analyses			
	Credit Rating	Rating Discrepancy	Spread
	(1)	(2)	(3)
VES	0.59*** (5.15)	-0.55*** (-3.79)	-33.51*** (-2.66)
OBS	-0.03 (-0.20)	-0.23 (-1.37)	-33.93*** (-4.11)
FLE	0.42 (1.59)	-1.06*** (-3.43)	-3.07 (-0.19)
Subordination Level	-0.62*** (-4.03)	-0.25 (-1.27)	-32.40** (-2.25)
No. of Tranches	-0.12*** (-5.63)	0.07** (2.51)	-2.70 (-1.27)
Log Tranche Value	-1.05*** (-28.19)	-0.07 (-1.40)	-25.97*** (-7.07)
Log Transaction Value	0.82*** (13.02)	0.34*** (3.94)	30.20*** (5.17)
Frequent Originator	-0.42*** (-4.48)	0.10 (0.85)	32.89*** (2.99)
Rating Discrepancy	0.29*** (9.37)		17.88*** (5.76)
Benchmark Rate			25.97* (1.76)
STS Compliant	-1.11*** (-8.98)	0.51*** (3.23)	0.41 (0.04)
Single Originator	0.82*** (4.70)	0.08 (0.36)	-40.70*** (-3.23)
GDP Growth Rate	0.02 (1.35)	-0.01 (-0.54)	1.21 (1.24)
Credit Rating	Y	Y	Y
Year	Y	Y	Y
Security type	Y	Y	Y
Country of Risk	Y	Y	Y
Originator	Y	Y	Y
Observations	2,153	1,861	354
Pseudo R-squared	0.140	0.208	
Adjusted R-squared			0.791