Sectoral Credit Allocation, Capital Requirements, and Financial Stability by Maximiliano San Milan

Discussion by
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DISCLAIMER

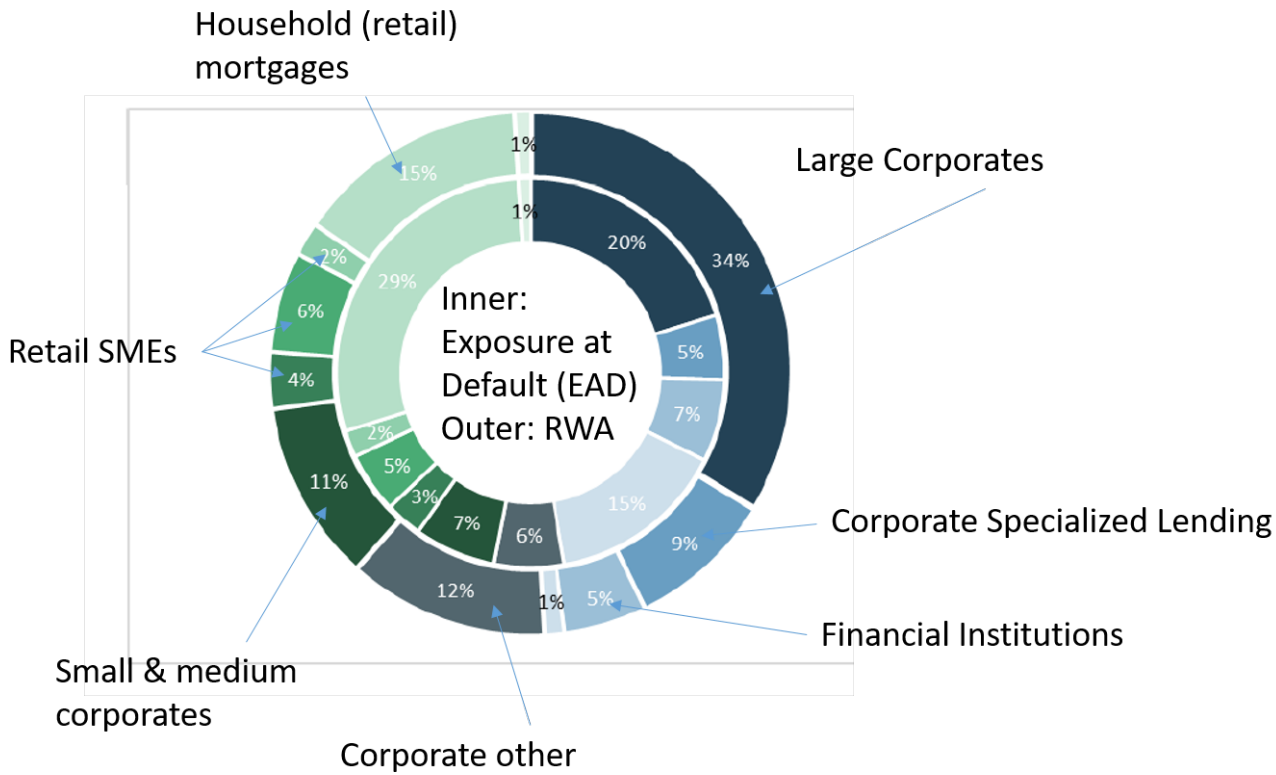
The views expressed in this paper are my own and do not necessarily reflect those of the Deutsche Bundesbank or the Eurosystem.

Summary

- Banks face lower "credit risk capital charges" (i.e. regulatory capital requirements) for household mortgages than for corporate loans
- Question: Does this have (unitended) consequences for financial stability and - if yes - is there room for macroprudential policy?
- Approach: Studies sector-specific macroprudential capital regulation (i.e. sCCyB) in a structural quantitative model
- Finding: Household loan boom preceding recessions makes (financial) recessions worse, sCCyB helps to mitigate/shut off this channel
- Literature on macroprudential capital regulation: typically either one sector or in multiple sector setups one (average) capital requirement
- **Overall: important topic, novel approach, important findings**
- Policy implications (my interpretation): micro- and macroprudential regulation should be jointly designed

Comment 1: Main Assumption

- Intro: "[...] mortgage loans to households typically carry much lower capital requirements [...] than corporate loans".
- **Comment:** would like to see a citation for this claim, e.g. EBA Benchmarking Report 2023

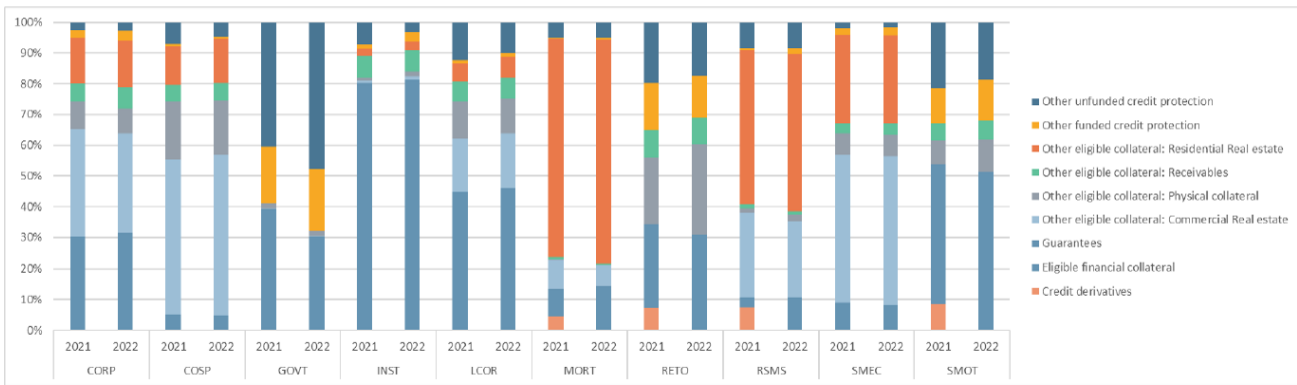


source: EBA Benchmarking Report 2023

Comment 2: Role of securitization for mortgages

- One of the main reasons for lower capital charges for mortgages is securitization.
- To embed this into the model is difficult but should be discussed.
- **My point:** it's not only the risk weights, whole exposures can be excluded for calculation of the regulatory capital ratio when securitised (so the asymmetry between firm loans and mortgages might be even worse)!

FIGURE 6: BREAKDOWN OF SECURED EXPOSURE BY COLLATERAL TYPE



source: EBA Benchmarking Report 2023

Comment 3: Calibration

- All of the banks with (retail aka household) mortgage exosure and most of the banks with coprporte exposure have 'Advanced'-IRB. Hence they estimate their own LGD values (lower than regulatory ones, see appendix)
- **Comment:** use EBA benchmarking results to calibrate parameters for the regulatory constraint, so that it matches the data (PDs, LGDs and risk weights), istead of using the regulatory LGD factors
- Return on equity seems very high compared to the data. so, it seems the balance sheet channel is very strong in your model, even in 'normal' times.
- **Comment:** Think about making equity injections to banking sector state dependent, also to get the cost of capital regulation more 'realistic'

Comment 4: Quantitative exercise

- Would like to see the following simulations:
  - Benchmark (fully dynamic asymmetric IRBA, this is in paper)
  - Symmetric IRBA (this is in paper)
  - Only through the cycle capital requirements, i.e. no dynamic component in risk weights
  - Standard approach to credit risk according to CRR
  - Completely flat, constant over time, and symmetric capital requirements
- Paper shows the upsides of macroprudential regulation in terms of graphical illustration of (lower) GDP volatility, especially tail risk
- Would like to see a table with (ex-ante) cost and benefits in terms of GDP or welfare (if possible), i.e. how much is ex-ante GDP cost and how much tail risk is mitigated for different counterfactuals for different micro-and macroprudential capital requirement rules

A technical comment

- Couldn't fully understand how you get from the formulas in Art. 153 and Art. 154 CRR to the formulas in the appendix
- **Comment:** clearly lay out in appendix how you get from the CRR to the assumed rule in your model, and what are your assumptions
- Side-question: why $M_s = 1$ as a benchmark?

Appendix

TABLE 3: SUMMARY STATISTICS OF THE KEY METRICS OBSERVED FOR ALL EXPOSURES, BY SVB EXPOSURE CLASS AND REGULATORY APPROACH.

		LCOR		COSP			INST		CGCB		CORP		SMEC		SMOT	RETO	RSMS	MORT	QRRE
		AIRB	FIRB	AIRB	FIRB	SLSC	AIRB	FIRB	AIRB	FIRB	AIRB	FIRB	AIRB	FIRB	AIRB	AIRB	AIRB	AIRB	AIRB
Number of institutions		49	53	26	19	29	20	41	13	27	50	48	50	48	61	71	58	78	32
GC (%)	Q1	37%	42%	34%	41%	78%	16%	20%	2%	1%	41%	50%	34%	39%	32%	28%	15%	10%	15%
	Median	49%	62%	44%	55%	86%	23%	24%	5%	3%	60%	72%	46%	64%	38%	37%	27%	14%	26%
	Q3	64%	82%	53%	81%	96%	28%	30%	11%	14%	73%	91%	61%	86%	49%	53%	36%	19%	42%
	Q3-Q1	**27%**	**39%**	**19%**	**40%**	**19%**	**12%**	**10%**	**10%**	**13%**	**32%**	**41%**	**27%**	**47%**	**17%**	**25%**	**20%**	**9%**	**27%**
RW (%)	Q1	34%	41%	31%	40%	69%	16%	20%	1%	1%	37%	48%	30%	36%	23%	23%	13%	9%	10%
	Median	47%	59%	39%	51%	76%	22%	24%	5%	3%	54%	66%	40%	55%	31%	30%	22%	12%	17%
	Q3	59%	76%	48%	78%	84%	26%	29%	11%	13%	66%	83%	53%	70%	36%	43%	27%	16%	28%
	Q3-Q1	**25%**	**35%**	**17%**	**38%**	**16%**	**11%**	**10%**	**10%**	**12%**	**29%**	**35%**	**22%**	**34%**	**13%**	**20%**	**15%**	**8%**	**18%**
PD (%)	Q1	0.51%	0.33%	0.89%	0.34%	0.00%	0.13%	0.08%	0.02%	0.00%	0.84%	0.56%	1.19%	0.73%	1.95%	1.09%	1.09%	0.45%	0.65%
	Median	0.70%	0.61%	1.49%	0.60%	0.00%	0.19%	0.12%	0.06%	0.01%	1.50%	1.07%	2.06%	1.73%	2.61%	1.56%	1.74%	0.77%	1.56%
	Q3	1.25%	1.07%	2.25%	1.01%	0.43%	0.27%	0.22%	0.11%	0.05%	1.91%	1.76%	2.49%	2.72%	3.35%	2.18%	2.99%	1.04%	2.12%
	Q3-Q1	**0.74%**	**0.74%**	**1.36%**	**0.67%**	**0.43%**	**0.14%**	**0.14%**	**0.09%**	**0.04%**	**1.07%**	**1.20%**	**1.30%**	**1.99%**	**1.40%**	**1.09%**	**1.90%**	**0.59%**	**1.47%**
LGD (%)	Q1	27%	43%	13%	40%	0%	25%	26%	8%	45%	24%	40%	21%	38%	28%	26%	14%	11%	38%
	Median	33%	44%	21%	43%	4%	32%	38%	24%	45%	27%	43%	27%	42%	35%	39%	18%	16%	53%
	Q3	40%	45%	26%	44%	36%	39%	45%	39%	45%	36%	44%	32%	44%	47%	51%	21%	21%	66%
	Q3-Q1	**12%**	**2%**	**12%**	**5%**	**36%**	**15%**	**19%**	**30%**	**0%**	**12%**	**4%**	**11%**	**6%**	**19%**	**25%**	**7%**	**10%**	**28%**

source: EBA Benchmarking Report 2023