

Discussion of:
**Lending by Servicing:
How shadow Banks Dampen Monetary Policy Transmission**
Isha Agarwal, Malin Hu, Raluca A. Roman, Keling Zheng

Martina Jasova
Barnard College, Columbia University

WE_ARE_IN Macroeconomics and Finance Conference
September 30, 2022

Monetary policy transmission

Banks: Deposit channel of monetary policy (Drechsler, Savov, Schnabl, 2017)

- $R \uparrow \implies \text{deposit} \downarrow \implies \text{mortgage lending} \downarrow$

Shadow banks:

- Not funded with deposits!
- Primary source of external funding: secured lines of credit (backed by mortgages or MSRs)

\implies Deposit channel of monetary policy might not be fully relevant for shadow banks

This paper

The authors propose and test a new channel of monetary policy via shadow banks:

The Mortgage Servicing Channel

When Fed raises interest rates:

- HH are less likely to refinance their mortgages \implies mortgage pre-payment \downarrow
- Collateral value of mortgage servicing rights (MSRs) \uparrow
- Shadow banks are able to receive more funding against MSR
- Shadow banks with high exposure to MSR contracts mortgage lending by less compared to low MSR shadow banks

MSRs act as a **hedge** against rising rates

\implies MSRs weaken the contractionary effect of monetary policy tightening on mortgage lending

Heterogeneity:

- Stronger effects for non-banks with low capital and risky portfolio
- More benefit for low-income and minority borrowers

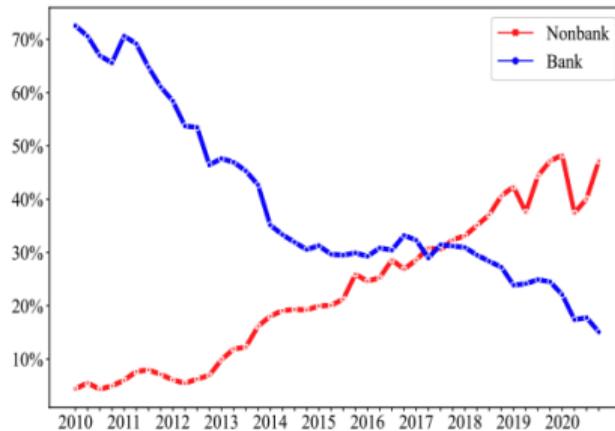
Shadow banks vs. traditional banks

$$Y_{i,l,c,t} = \beta_1(\text{MP}_t \times \text{Nonbank}_{l,t}) + \beta_2 \text{Nonbank}_{l,t} + \beta_3 \text{MP}_t + \gamma X_{i,l,t} + \alpha_{c,t} + \alpha_l + \epsilon_{i,l,c,t}$$

- Compare the loan origination of banks vs non-banks in response to MP shocks
- While controlling for county-time variation as well as key loan, borrower and lender characteristics
- Findings: 25bp \uparrow MP shock, shadow banks approve 2.4% more mortgage applications and supply 1.6% higher volume of mortgage credit relative to traditional banks

Comment: Servicing share of banks vs shadow banks

- Key idea: shadow banks have become more active in mortgage servicing
- But(!) the paper uses the sample 2012–2017 when banks still played a dominant role in MSR

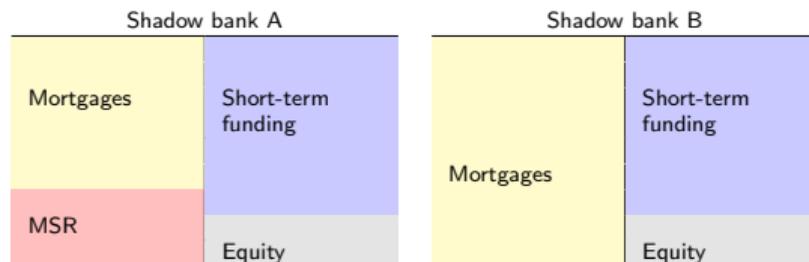


Suggestions

- It would be super interesting to extend the data analysis post 2017
- Compare banks vs non-banks with similar MSR to isolate the role of different funding structures
- Introduce $MP_t \times \text{NonBank}_j \times \text{MSR share}_{l,t-1}$ to separate the role of shadow banks broadly and MSR
- Finally, why is NonBank dummy time-varying?

The mortgage servicing channel

Within shadow banks



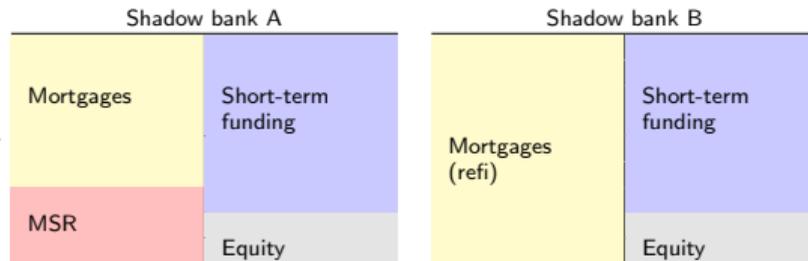
Identification: **Exploit the cross-sectional variation of ex ante MSR**

When $R \uparrow \implies$ HH refinance less \implies Collateral value of mortgage servicing rights \uparrow

- Shadow bank A is able to receive more funding against MSR than Shadow bank B
- Shadow bank A is able to better hedge against the raising rates

Shadow bank A contracts lending by less compared to Shadow bank B

Alternative channel



Shadow banks **specialize on originating mortgages that are related to refinancing** (vs. house purchase)

When $R \uparrow \implies$ HH refinance less \implies Shadow banks originate fewer refi mortgages

- Shadow bank B is more exposed to mortgage origination related to refinancing

Shadow bank A contracts lending by less compared to Shadow bank B

- This effect is more mechanical and it abstract from the higher borrowing capacity due to MSR
- If at work, this could bias the magnitude of the MSR channel upwards

Suggestion: Compare the response of SBs **while holding the ex ante share of refi mortgage loans constant** (to shut down the alternative)

Evidence on funding

Dependent Variables: Model:	Log CreditLimit			Log UsedCredit			R		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: Shadow Bank-Level Analysis									
FFF3m _{t-1} × MSREquity _{i,t-1}	0.0280** (0.0124)	0.0208** (0.0092)	0.0165* (0.0084)	0.0390*** (0.0106)	0.0269*** (0.0085)	0.0312*** (0.0088)	-0.0009*** (0.0002)	-0.0009*** (0.0002)	-0.0008*** (0.0002)
MSREquity _{i,t-1}	0.0043* (0.0024)	-0.0003 (0.0013)	-0.0010 (0.0013)	0.0016 (0.0012)	0.0006 (0.0012)	0.0008 (0.0011)	0.0000 (0.0000)	0.0000** (0.0000)	0.0000 (0.0000)
FFF3m _{t-1}	-0.2117 (0.6268)	-0.9027** (0.4334)		-2.037*** (0.5342)	-2.472*** (0.4608)		0.0560*** (0.0120)	0.0533*** (0.0113)	
<i>Fit statistics</i>									
Observations	4,603	4,603	4,603	4,487	4,487	4,487	4,251	4,251	4,251
R ²	0.64842	0.92506	0.92634	0.73090	0.88117	0.88767	0.05206	0.39660	0.42909
<i>Fixed-effects</i>									
Lender		Yes	Yes		Yes	Yes		Yes	Yes
YearQuarter			Yes			Yes			Yes
Lender controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

- Finding: Shadow banks with higher ex-ante MSR exposure as associated with

1. Increase in credit limits (supply?)
2. Increase in draw downs (demand)
3. Lower cost of borrowing, i.e. lower rates (supply)

Can we disentangle supply and demand in the funding market?

- **Falling loan rates** suggest an outward shift of **supply** of funding by banks to shadow banks.
 - If correct, why is this happening?
- Can we further control for **riskiness of loans**?
 - Type/ quality of underlying collateral, covenants etc.
- Can we further control for **riskiness of shadow banks**?
 - Later, the analysis shows that lowly capitalized SB benefit more.
 - Do lowly capitalized SBs actually receive cheaper funding? (Add triple interaction)
- Shadow bank-traditional bank matching is not random (and very concentrated)
 - Many traditional banks sell their servicing rights to a SB that they later fund
 - Idea: Control for non-random matching **shadow bank-commercial bank FE**

Small comments and suggestions

- It would be helpful to add more intuition for borrow heterogeneity. When MP tightens, low-income HH benefit disproportionately more? This goes the opposite direction as a standard risk-taking channel of MP. Why? Is it possible to add some information on loan spreads?
- Typos and corrections in equations: Eq. (1) and (2): MP_t and FE_t are redundant, they are nested in $FE_{c,t}$. Eq (3) and (4): add double interactions, fix redundant FEs, Eq (7): triple interaction used by double interactions missing.
- Standard error clustering should be at the source of variation (two-way at lender and time)

Final thoughts

- Great paper! Very interesting question and novel thought-provoking mechanism!
- Main suggestion: provide more insights into the mortgage servicing channel
- I look forward to reading the new draft!