Discussion of “Lending By Servicing: How Shadow Banks Dampen Monetary Policy Transmission”

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- Mortgage companies (MCs) engage in two main activities: *lending* & *servicing*
- This paper: how do these two activities interact following monetary policy shocks?
- Mechanism:

Tighter monetary policy

↓

Mortgage servicing rights (MSRs) rise in value, due to slower prepayment. Raises MC net worth / collateral value

↓

MCs can borrow more from warehouse lenders

↓

Mortgage credit supply increases

Main findings

Following a contractionary monetary shock:

1. MCs increase mortgage lending relative to banks (Table 2)

2. MCs with large MSR portfolios increase lending relative to other MCs (Table 3)
   - Especially among MCs with low capital, low liquidity, or risky loans (Table 4)

3. MCs with large MSR portfolios increase warehouse borrowing from banks (in relative terms) (Table 5)

Hedging role of MSRs very topical given sharp rate increases in 2022!

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Mortgage Firms' Antidote to Rising Rates

Even as home-loan refinancing volumes drop, the value of handling homeowners' monthly mortgage payments is conversely rising

By Telis Demos Follow

March 29, 2022 7:00 am ET

For some mortgage firms with relatively large servicing businesses, rising MSR values can be enough to offset what happens with originations. New Residential Investment Corp., a mortgage real-estate investment trust, estimated in February that overall, a 1 percentage point increase in 10-year Treasury yields would increase its core annual earnings by about $50 million. While many mortgage

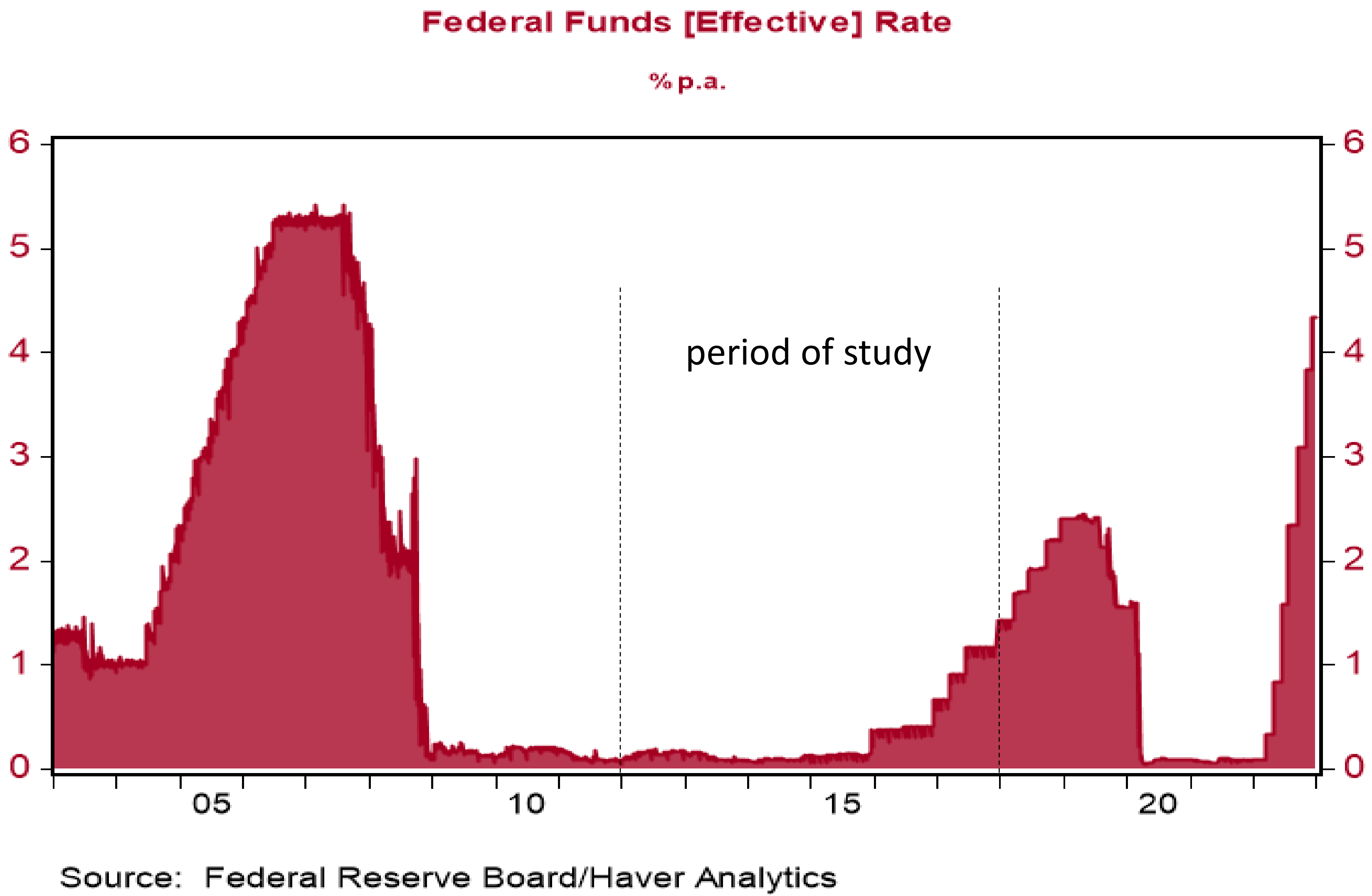
UWM HOLDINGS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

	For the nine months ended September 30,	
	2022	2021
Revenue		
Loan production income	$ 852,808	$ 2,143,400
Loan servicing income	574,847	443,762
Change in fair value of mortgage servicing rights	434,912	(448,825)
Gain on sale of mortgage servicing rights	—	(670)
Interest income	207,625	227,169
Total revenue, net	2,070,192	2,364,836
Net income	994,342	1,328,574

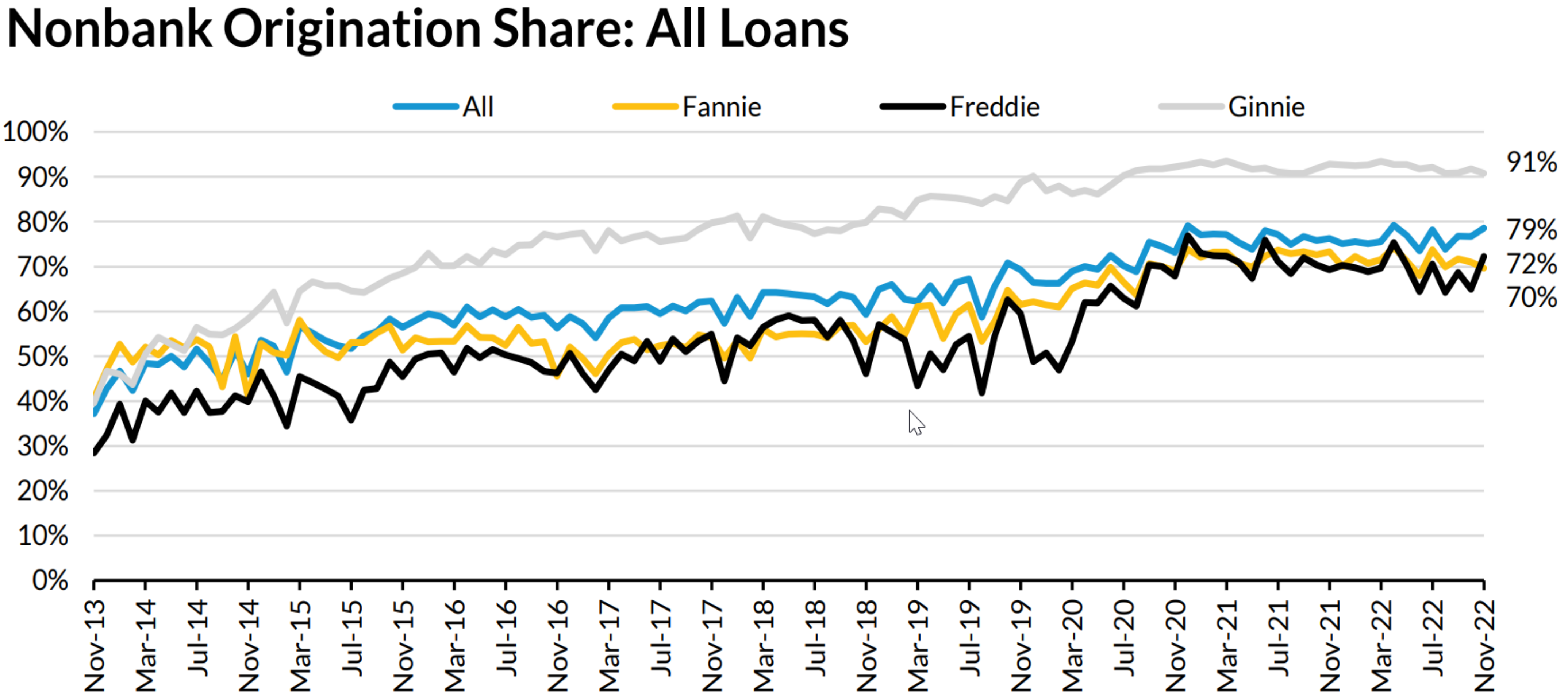
Comments

1. Some time-series graphs
2. Interpretation and magnitudes
3. Econometrics

Fed funds rate: 2003-23



Nonbank share of mortgage lending: 2013-2022



Sources: *eMBS and Urban Institute.*

Does monetary tightening really shift lending to nonbanks?

- Current tightening cycle is a great natural experiment – sharp, unanticipated monetary contraction that has dramatically reduced mortgage prepayment
  - From Dec 21 to Sep 22, mortgage rates >2X, MSR duration shrank from -20 to -4! (MIAC)
- But nonbank share of mortgage lending has been flat at best (Urban Inst., 2022)
  - Sharply at odds with estimates in paper (finding: 25bp shock raises nonbank volume 7.8%)
- Conceptually I think this makes sense:
  - Deposit channel of monetary policy (Xiao 2020; Drechsler et al. 2017) not so relevant here because agency mortgages are securitized, not held in portfolio.
    - Consistent with Drechsler et al. JFE 2022: finds no deposit channel effect for GSE loans in 03-06 cycle
  - Nonbanks are funded by banks! If bank credit supply shrinks, that will hit nonbanks too.

Empirical challenges & suggestions:

1. Paper studies a short time window period – 2012-17 – when monetary policy mostly at zero bound
   - Monetary shocks are aggregated annually – only 6 observations. What years drive results?
2. In background: big secular upward trend in nonbank share of lending
3. Size of MSR portfolio not random; correlated with unobservables

<u>Suggestions</u>:

- Expand time window? And/or use higher frequency data (e.g., eMBS, Fan/Fred)?
- Include nonbank x time in table 2; and FFF3m x other MC controls in later tables
- Tabulate characteristics of MCs with high $MSREquity_{t-1}$
- Exploit the fact that Ginnie Mae MSRs couldn't easily be used as collateral

Magnitudes

- Useful to think more about size of the MSR net worth shock, and what lending effect might be reasonable.

- Back-of-the-envelope:
  - 100bp parallel rise in yield curve raises MSR values by ≈20% in normal times (MIAC)
  - 1 std. dev. change in MSR/equity = 7% difference in net worth following shock (0.2 x 0.382)
  - Upper bound: raises borrowing capacity and lending by 7%? But likely lower, because:
    - MSRs are difficult to finance – high haircuts – especially for Ginnie Mae MSRs
    - Most nonbanks have a lot of slack on warehouse lines – not constrained

Econometric housekeeping

- Not great to use log(lending) as dependent variable in county-level regressions
  - Not well behaved esp. near zero – see Cohn, Liu and Wardlaw JFE 2022
  - Instead: poisson model or 0-1 for lender being of a particular type etc.
- If model includes triple interactions, need to include all double interactions too
- Variable of interest is at lender level – clustering should be at lender level too rather than lender-county (as in Abadie, Athey and Imbens 2022)

Summing up

- Very interesting paper that highlights the hedging role of mortgage servicing rights. Very relevant right now!

- Lots of opportunities to enhance / enrich analysis, particularly given rich availability of mortgage data.

- Look forward to seeing the next version!