Discussion of: "Integrated Intermediaries, Fintech Lenders, and Mortgage Refinancing"

By Buchak, Chau and Jørring

James Vickery
Federal Reserve Bank of Philadelphia

WUSTL Olin Finance Conference
October 20, 2023

Opinions in this presentation are my own and do not reflect the opinions of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.

Idea of the paper

- When making a loan, mortgage originator has to decide whether to:
  - $\rightarrow$ *Retain* servicing rights
  - $\rightarrow$ *Sell* them to a third party ("de-integration")
- One cost of selling servicing rights (MSRs) – reduces originator's ability to recapture the borrower when they refinance
- "De-integration" is found to reduce borrower's likelihood of refinancing
  - $\rightarrow$ Why? Integrated lender has a cost advantage to execute refi – lost when MSR is sold
  - $\rightarrow$ New servicer less likely to be an originator themselves (true?)

General reactions

1. Important topic. Speaks to a very general question in financial intermediation – *synergies* between different financial services
2. Some very detailed data work – esp. forward-matching HMDA loans to refis
3. Nice natural experiment – regulation-driven variation in servicing transfers
4. Rich model – e.g., can consider different counterfactuals for mkt structure

Comments:

1. Empirics: Identification and magnitudes
2. Ideas to enrich the analysis further

1. Empirics: Identification and magnitudes

1. Identifying the effects of integrated intermediaries

$$Refi_{it} = \boxed{\beta Post_t \times Bank_i} + \gamma_{ct} + \gamma_{cb} + \epsilon_{it}$$

Linear probability model
Sample: (i) originator = initial servicer
(ii) loans originated from 2000-12
"Post" period: 2013 onwards

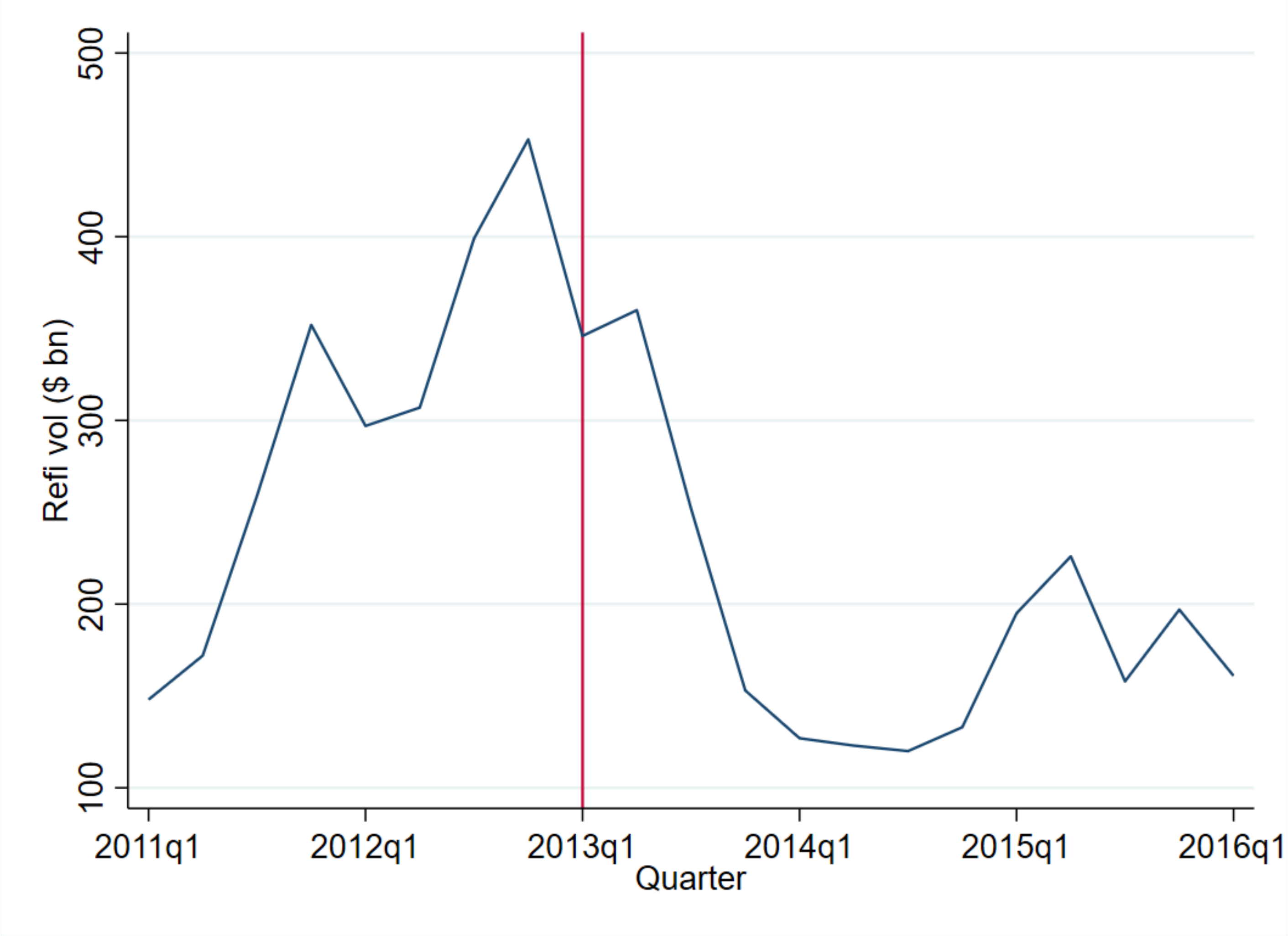
- *Bank x post* – lender and servicer more likely to be different entities (banks sold servicing rights to nonbanks in 2013 in response to Basel III)
  - Finding: $\beta < 0$ (de-integration reduced refinancing)
- *Identifying assumption*: P(refi) for banks vs nonbanks would have moved in parallel in counterfactual without spike in bank MSR sales
  - How reasonable is this? What might we worry about?

Two concerns:

1. Some big shifts in the market going on in the background

2. Is the magnitude of the effect reasonable?

Significant overall drop in refinancing in "post" period



Reflects (i) rising mtg rates (taper tantrum); (ii) wind-down of HARP refi program

1. Effect on P(refi) for banks vs nonbanks likely not parallel

- Refinancing is an option – inherent nonlinearity
- P(refi) more sensitive to rates for "high-propensity" borrowers, lenders
- Prepayment literature often uses proportional hazard structure

2. Bank vs nonbank incentives to participate in HARP?

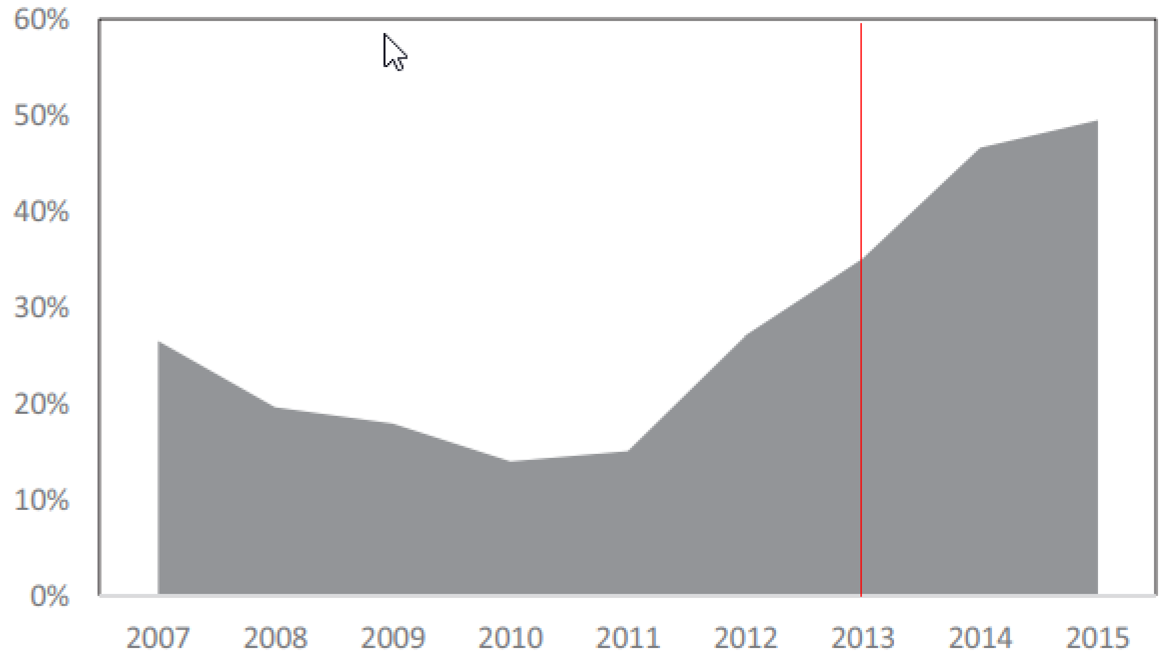
Bank share of mortgage lending is falling over time

Falling bank share is due to combo of regulatory and legal factors:

- E.g., CCAR / stress tests; tighter supervision; MSR risk weights; higher capital requirements; legal settlements; CFPB… (see Buchak et al. 2018; Kim et al. 2018 etc.)

<u>One margin</u>: banks may not push as aggressively to refi borrowers

Nonbank share of conforming mortgage lending



(b) Conforming loans

Source: Buchak et al (2018)

Placebo test (control sample where originator ≠ servicer) provides some comfort.

→ But not perfect – e.g., characteristics of bank loans in control sample?

Magnitudes

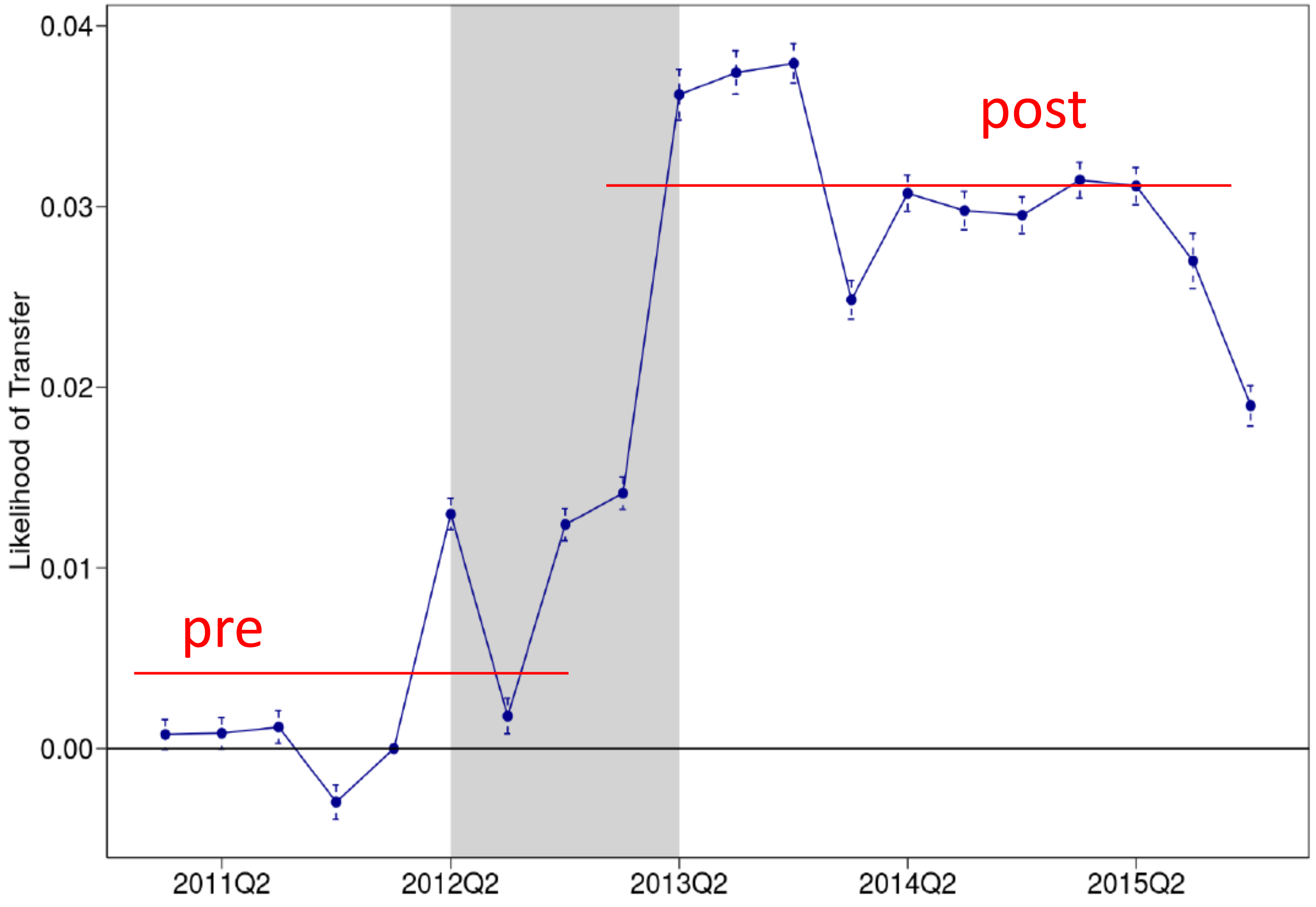
- Effect of bank x post is very large:

	Dependent variable:		
	% Refi		
	(1)	(2)	(3)
Post x Bank servicer at origination	$\boxed{-1.635^{***}}$	-1.504^{***}	-1.557^{***}
	$\boxed{(0.196)}$	(0.196)	(0.296)
E[Y]	$\boxed{1.69}$	1.69	1.95

- Particularly puzzling because this is a reduced form estimate (RHS variable = instrument)
  - $\rightarrow$ What does this imply for P(refi | de-integration) - P(refi | integration)? [2SLS second stage]
  - $\rightarrow$ No first stage in paper, but effect of bank x post on P(de-integration) << 1, esp. early in post period
  - $\rightarrow$ P(refi | de-integration) - P(refi | integration) is enormous (?)

- *Plain English*: how to interpret large immediate impact on *overall* bank refi rates, given that Basel III caused only partial / gradual transfer of MSRs to nonbanks over time? (next slide)

Effect of Basel III on servicing transfers by banks



$$Transfer_{i,j,t} = \sum_{k \neq 2012Q1} \beta_k \, \mathbb{1}_k \, Bank_{i,j,t-1} + \gamma Bank_{i,j,t-1} + \mu_i + \theta_t + \epsilon_{i,j,t}$$

Hamdi, Jiang, Lewis, Padi and Pal (2023): direct estimates of bank servicing transfers:

- P(servicing transfer) for banks increases by ≈ 2.5% in post period (per quarter)
- Eventually this cumulates to significant effect on “integration” share, but takes time
- Why would we see such large effect on total bank refi rate after just a few quarters?
- Other considerations:
    - Estimate to left is for total market. Smaller effect for GSE loans.
    - *Timing*: Servicing transfers start rising in 2012. Why no refi effect until 2013?

Suggestions

1. Effect of Basel III is highly heterogenous across banks:
   - E.g., 10% cap on MSR / RWA that counts to reg. capital – effective risk-weight of 1250% above cap
   - Use cross-bank variation for identification and improve strength of first stage

2. More descriptive statistics + plots of raw refi rate by group (guide reader)
   - E.g., bank originated + serviced vs originated + sold; bank vs nonbank etc.

3. Additional controls – particularly vintage, which has large effect on refi (burnout)
   - Also consider logit / proportional hazard model at least as robustness test

4. Placebo exercise is good, but show statistics on selection into placebo vs main sample

5. Think carefully about magnitudes and plausibility

2. Ideas for further analysis

Recapture analysis

Would be great to expand this analysis – and lots of scope to do so:

1. Stylized facts: which financial institutions are good at recapture?
   - E.g., banks vs nonbanks vs credit unions; big vs small lenders (role of relationships, cross-selling)…

2. Study recapture effects of MSR sales in 2013 period

3. What is more important for refi recapture: being the servicer or originator?
   - Servicer has more recent interaction with the borrower, up-to-date contact details etc.
   - But originator likely had much more detailed and personal interaction with the borrower
   - Lender may still have an inside track even if they sold the servicing rights (next slide)

guaranteedRate

Personal example:

- Guaranteed Rate was my purchase lender, but doesn't service my loan.
- Still bombard me with emails etc.
- Were able to earn my business when I refinanced

Hi James,

It's been a year since we completed your refinance. I wanted to check in and offer you a free mortgage review. Let's make sure you still have the best mortgage! Contact me anytime and we'll get started.

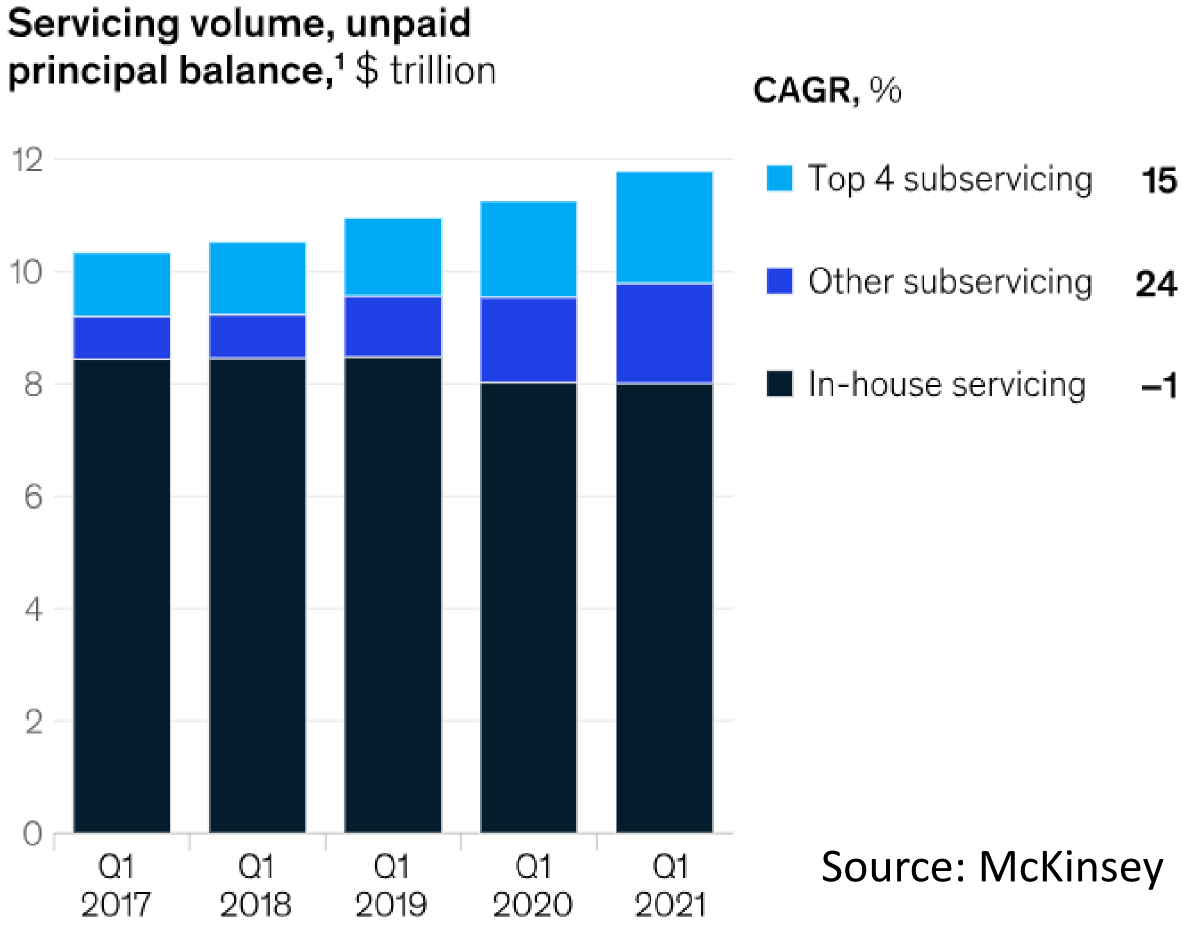
I'm very grateful for your business. If you know anyone who needs help with buying or refinancing a home, please send them my way.

Best wishes!

Eric

Another dimension of “de-integration”: subservicing

- **<u>Business model</u>:** Servicer holds risk (interest rate, prepayment, legal), but outsources day-to-day operations to a third party
- Mkt share of subservicers has grown rapidly in recent years
- What is driving this? Implications for borrowers?



Source: McKinsey

Summing up

- Very interesting and promising paper on an important topic
- Encourage authors to focus on “nailing down” empirics + interpretation more tightly
- Lots of scope to expand recapture analysis
- Look forward to seeing the next version!