Discussion of: “The Rise of Non-Banks in Servicing Household Debt”

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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.

Big picture

Very interesting paper that investigates the causes and consequences of *servicing transfers* in the mortgage market

Many things to like:

- Rich data: credit bureau records linked to servicer IDs and characteristics
- Makes use of nice natural experiment: shock to capital treatment of MSRs
- Relevant for policy: e.g., systemic implications of failure of large nonbank servicer

Contributes to growing literature on the servicing of household debt

Consumer Financial Protection Bureau Warns Mortgage Servicers About Legal Protections for Consumers When Transferring Loans

FEB 11, 2013

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CFPB to closely monitor transfer activity at bank and nonbank servicers

WASHINGTON, D.C. –The Consumer Financial Protection Bureau (CFPB) today issued a bulletin advising mortgage companies about their legal obligations that protect consumers during loan transfers between mortgage servicers. When handing over the processing of loans, mortgage servicers should not lose paperwork, lose track of a homeowner's loss mitigation plans, or hinder a consumer's chances of saving their home from unnecessary foreclosure. The CFPB has a heightened concern about these practices given the large number and size of recent servicing transfers.

What does the paper do?

1. Effect of tighter MSR capital requirements on bank $\rightarrow$ nonbank servicing transfers
   - *Findings*: Large volume of transfers; concentrated among riskier loans (e.g., low FICO)
   - These facts are consistent with predictions of a simple theoretical model
   - Not first/only paper here (see esp. Hendricks et al. TAR 2022) but richer loan-level analysis

2. Causal effect of servicing transfers on foreclosure and bankruptcy
   - Sort into bank vs nonbank groups based on servicer ID as of 2011Q1 (pre MSR-capital change)
   - Diff-in-diff: Bank-serviced mortgages more likely to be transferred in "post" period
   - *Findings*: Bank-serviced loans associated with higher foreclosure and bankruptcy

Comments

1. Why are high-risk mortgages more likely to be transferred?

2. Interpreting estimates of causal effects of servicing transfers

3. Data puzzles

1. Why were MSRs on risky loans more likely to be transferred?

- Using theory model, paper argues reason is that these MSRs have *higher* (?) transfer costs

- But I think there are two natural alternative explanations:

1. **Special servicing** – banks sometimes transferred loans to specialty servicers when they became distressed. Often these were nonbanks (e.g., Ocwen). Can you identify these??

2. **Legal and reputational risk** – during this period banks were subject to huge legal settlements and regulatory scrutiny regarding mortgage servicing.
    - Banks eager to reduce exposure to mortgage sector. Risks most pronounced for high-risk loans! (e.g., banks have now essentially exited FHA servicing market)

- Aside: To me, model not super-convincing. (1) No explicit asymmetric information. (2) Fairly easy to think of a different model that makes the opposite prediction.

2. Identifying causal effects of servicing transfers: Diff-in-Diff

Original servicer (as of 2011:Q1)	**"Pre" change in MSR capital requirements**	**"Post" change in MSR capital requirements**
Bank	Few servicing transfers	Many servicing transfers
Nonbank	Few servicing transfers	Few servicing transfers

2. Interpreting estimates of causal effect of transfers

Empirical challenge: bank and nonbank-serviced loans as of 2011Q1 are likely quite different populations on some key dimensions:

- Nonbanks are niche players in 2011 -- bank servicing share is 94% (source: GNMA)
- Banks originated or assumed many shoddy loans made prior to the 2008 crisis
  - E.g., Countrywide $\rightarrow$ Bank of America; Ameriquest $\rightarrow$ Citi etc.
- Likely differences in loan vintage distribution; geographic footprint etc.

Q: Is poor subsequent performance of bank-serviced loans due to high rate of servicing transfers, or omitted variables?

- Much more can be done here…

Suggestions:

1. Detailed balance table comparing bank and nonbank-serviced mortgages *as of the assignment date* (2011Q1)
   - Breakdown of loan vintages by year
   - Distribution of current and future local home price appreciation, unemployment rate
   - Loan characteristics: FICO score distribution; fraction FHA/VA, fraction jumbo, geographic distribution, loan performance statistics etc.

2. Control for loan characteristics *interacted with time dummies* (e.g., FICO bins x time; loan vintage x location x time) – not just static loan and vintage dummies

3. Possible to measure other characteristics? (e.g., LTV; low-doc; investor etc.)

2. Interpreting estimates of causal effects (cont..)

Additional issue: remaining bank vs nonbank differences might reflect differences in servicing *practices* rather than incidence of servicing *transfers*

1. Do banks service loans differently from nonbanks (may be time-varying)?
2. Nonbanks that bank MSRs are transferred to in 2012-15 may act differently to those in the "original nonbank servicer" sample
3. Numerous papers have found evidence of such "servicer effects" (e.g., Kim et al. forthcoming; Cherry et al. 2022; Aiello 2022; Agarwal et al. 2017)

Can we disentangle servicer effects from servicing transfer effects?

3. Data puzzles

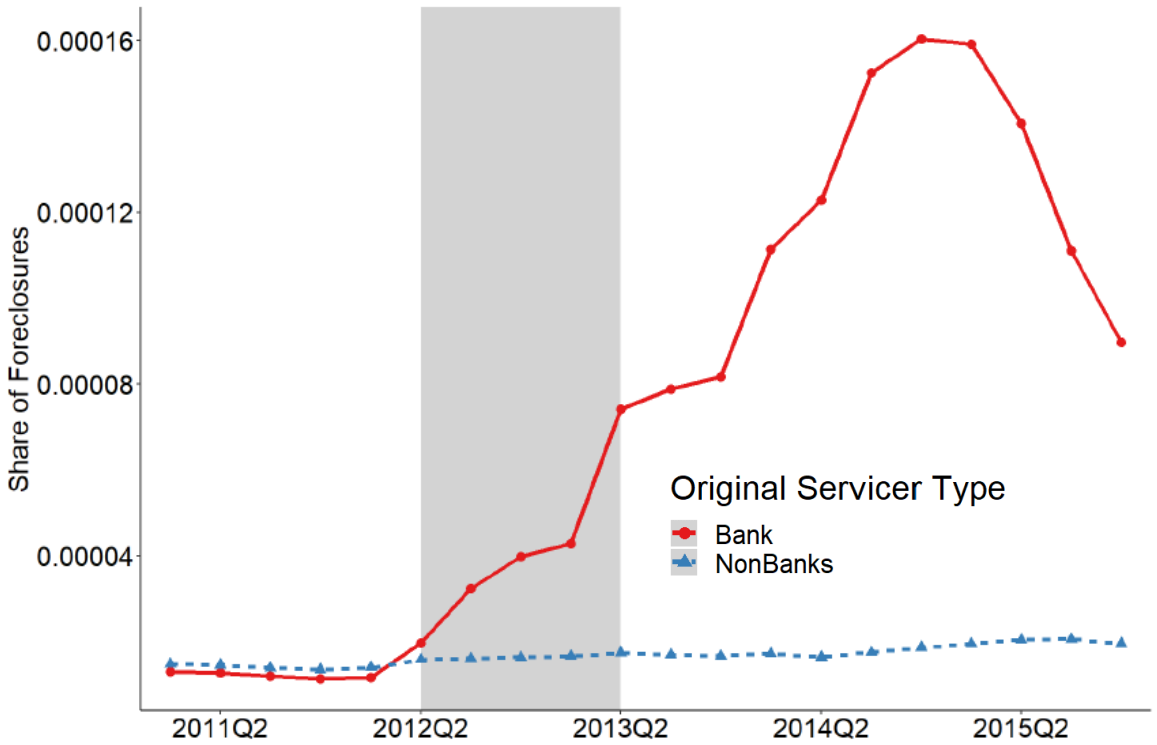
I found some features of the raw data surprising or hard to understand, e.g.,

1. Foreclosure rate is extremely low, far below level of other data sources
2. Foreclosure rate mostly trends *up* from 2011-2015, not down
3. In raw data, bankruptcy rate for bank vs nonbank-serviced loans tracks closely; hard to square with estimates of bank treatment effect

Suggestions: i) Present more raw statistics + ii) logic checks + iii) cross-validate against other data sources

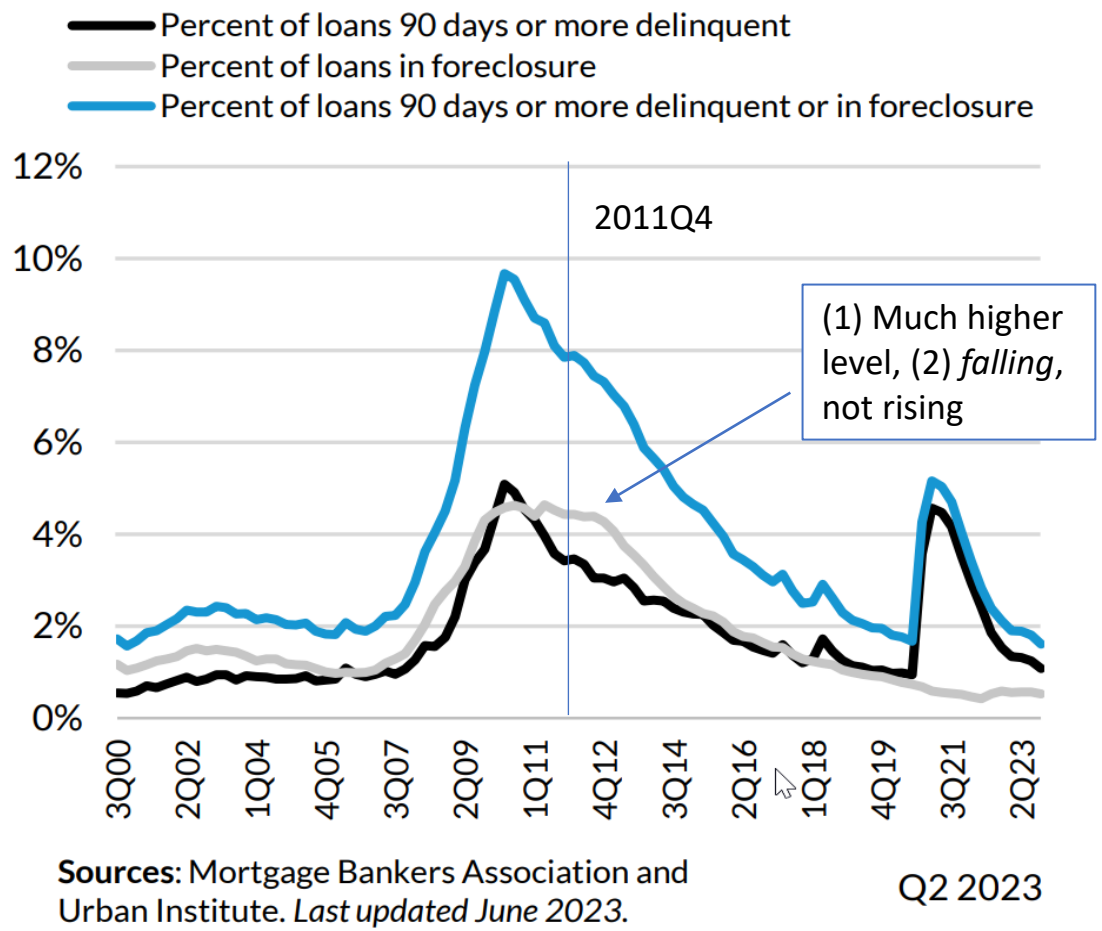
Puzzle: level & time-series behavior of foreclosure rate

Calculations in paper



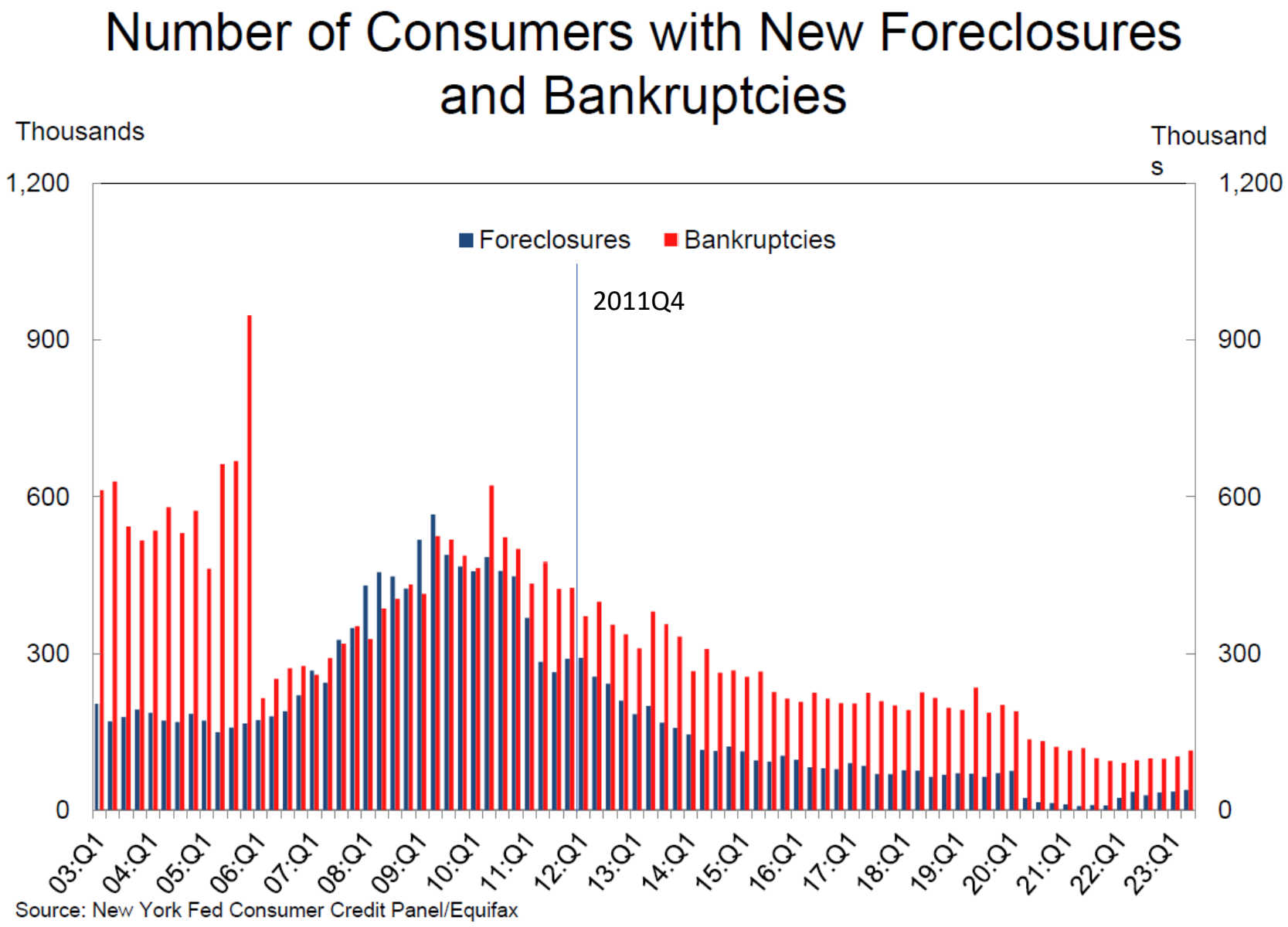
vs

Aggregate data



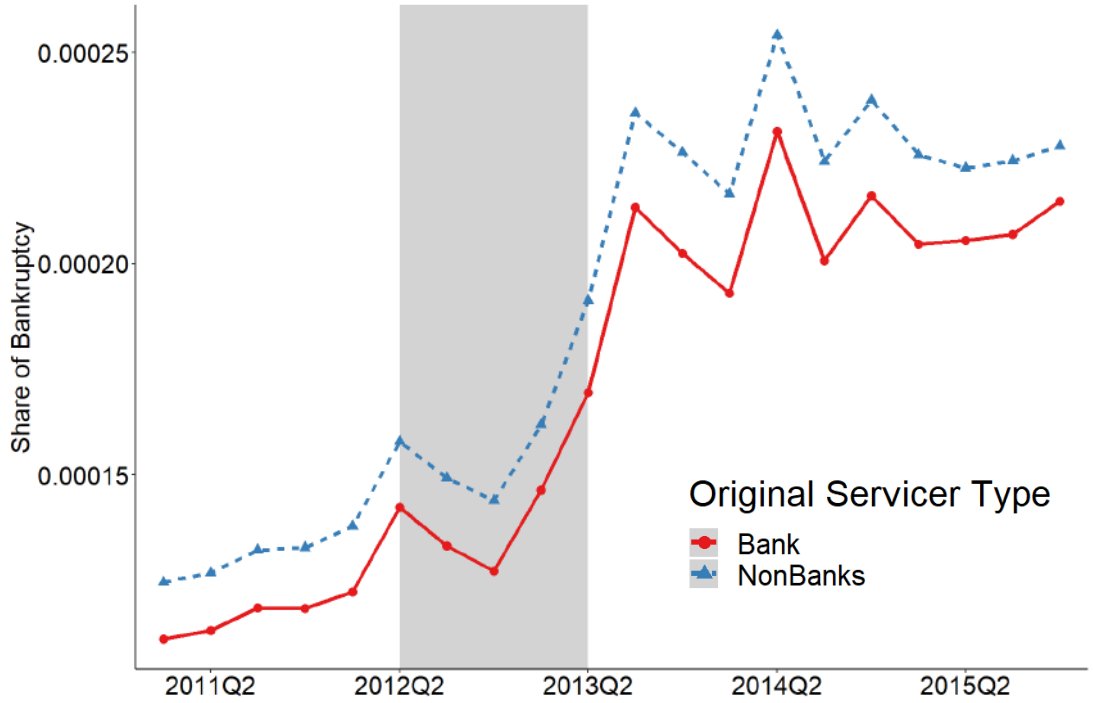
Issues: (1) In 2011, foreclosure rate is ≈4% in the data; 0.001% in the paper? (2) divergent trends over 2012-15

Foreclosure starts: FRBNY/Equifax consumer credit panel



Bankruptcy: raw data vs estimated treatment effects

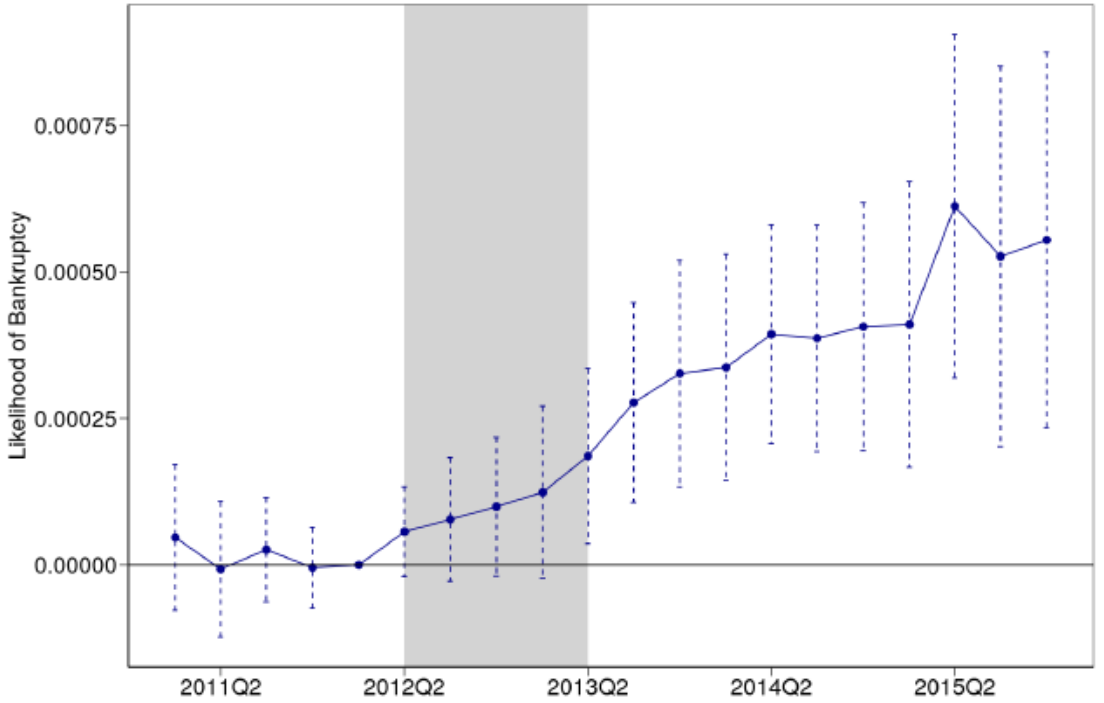
Raw data



vs

Estimate [bank-nonbank diff]

Figure 10. MSR Regulation and Consequences: Intent-to-Treat (ITT) Estimates



- In raw data, bank & nonbank move in parallel – or nonbank increases *faster*?
- Treatment effect is 2x the mean of the (binary) outcome variable?

Summing up

- Very interesting and promising paper on an important topic
- Lots of scope to expand and refine the analysis given the richness of the data
- Look forward to seeing the next version!

Appendix: Additional suggestions for authors

1. Empirics could do much more to exploit nonlinearity in effect of change in capital requirements. Capital requirement shifts to 1250% once you get above 10% cap – so banks above this limit have much stronger incentives to sell MSRs. But the empirical model just includes MSRs as a linear variable. (E.g., see the Hendricks et al. JAR paper, which does exploit the nonlinearity).
2. In notes/paper, be explicit that effects in the event study graphs (e.g., fig 3, fig 4 etc.) are normalized to zero in 2012Q1. There are statements in the paper saying that the effects in the pre-period are close to zero – but this is true almost mechanically because of the normalization.
3. Suggest rescaling variables so that the coefficient estimates in tables etc. have at least two or three significant digits. Hard to read and interpret coefficient estimates like 0.00001 (e.g., 0.000014 and 0.000006 would round to the same thing even though one number is more than double the other).
4. In table 3, consider some specifications including interactions with other bank characteristics too like size, capital ratio, profitability -- since MSR/CET1 will be correlated with other things this will help convince the reader the results aren't driven by omitted variables. This would also allow you to check whether your results line up with Hendricks et al. (2022) who find some effects for other characteristics. I'm pretty sure this won't change your result though.
5. Theory model assumes convex cost in the size of each portfolio separately (high risk and low risk). Why is this? The constraint is at the level of the financial institution, should reflect the sum of their exposures across the two types.
6. Would be helpful if the paper can do more to explain how servicers are classified into banks and nonbanks and how they are linked to regulatory reports. Is this a text match based on the servicer name? If you can't find a match to the regulatory reports, do you just assume it's a nonbank? (E.g., nonbank share of servicing estimated in the paper is higher than other sources). An appendix that explains the methodology here would be helpful.
7. The divergence in transfer rates between high and low-risk loans only seems to show up at the end of the sample period. During the Basel III transition period they actually rise at basically the same rate (Figure 7). Not sure what the interpretation is here.
8. The paper makes it sound like the Basel III rules were fully implemented by 2013 or so. This isn't true -- after the rules were adopted, there was then a transition period over 4-5 years during which: (1) the new RWA-based requirements ratcheted up progressively and (2) the deductions from capital in excess of the 10% cap ratcheted up according to a step function.
9. In intro. It's not right to say that mortgage lending has transformed from a deposit-centric model "over the past two decades" – by 2000 the securitization rate was already nearly 60%, not that different to what it is today (see fig 1 of sr1001.pdf (newyorkfed.org))