Borrowing and Spending in the Money: the (un)Importance of the Cash-out Refinance Channel of Monetary Policy

By Elliot Anenberg, Tess Scharlemann, and Eileen van Straelen

Discussant: Dan Greenwald

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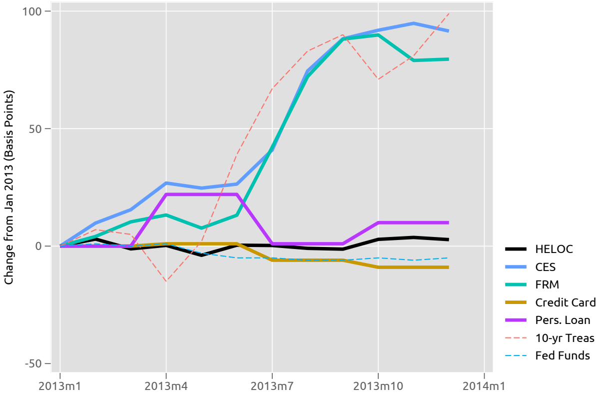
Overview

- **Question:** how do interest rate based refinancing incentives influence equity extraction?
  - Key to state dependence of monetary policy argued by Berger, Milbradt, Tourre, Vavra and Eichenbaum, Rebelo, Wong.
- **Approach:** Use comprehensive credit data to measure **total equity extraction** response following unexpected change in interest rates in the 2013 Taper Tantrum episode.
- **Main Results:**
  - Cash-out refi does respond to rate incentives.
  - But mostly reflects substitution with other borrowing products (both housing and consumer).
- **My Evaluation:** great data work with important and convincing point, but I'm not sure we should give up on cash-out refinance channel.
  1. Taper Tantrum may not be reflective of typical monetary policy shock.
  2. Authors restrict to direct influence of rate change, may want to consider indirect influence through extractable equity.

The Taper Tantrum Episode

- Taper Tantrum: large increase in long interest rates. Mortgage rates ↑80bp in one month.
- Cleanly identifies effect of moving mortgage rates **in isolation** since rates on alternative products don't move.

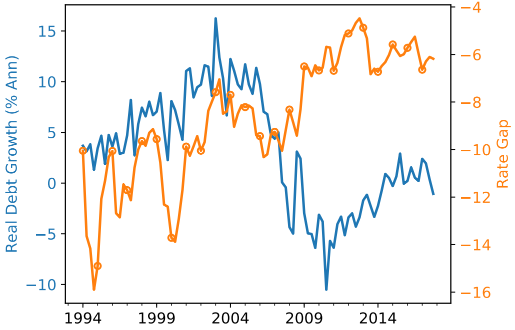


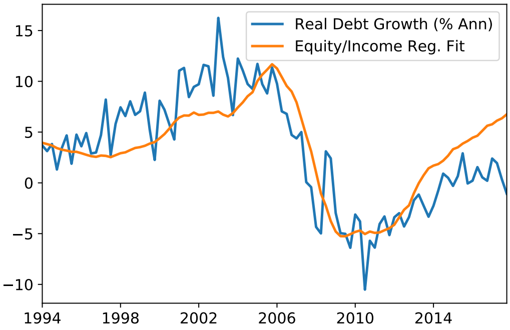
The Taper Tantrum Episode

- I believe the authors' results for this episode.
  - Intuitive that taxing Coke while price of Pepsi unchanged has small effect on consumption.
  - Substitution between credit products seems like an important and understudied angle.
- But these results may depend on specific form of the Taper Tantrum shock.
  - Taper Tantrum was a shock to the long end of the curve, large increase in term spreads.
  - As a result, long-duration instruments like mortgages affected more than HELOCs.
- Empirical literature (e.g., Gertler and Karadi (2015), Hamilton (2008), etc.) find that long rates move by around half as much as short rates following a typical MP shock.
  - Under typical shock, HELOCs ("Pepsi") should be affected **even more** than mortgages ("Coke").
  - Implies that naive measures could **underestimate** impact.
  - Would be great if authors can look into this more carefully.

Direct vs. Indirect Effects

- In general though, I buy that direct effect of interest rates may be limited.
- Real household mortgage growth comoves little with aggregate rate cap, but very strongly with amount of home equity.





Source: Federal Reserve Flow of Funds, eMBS.

Direct vs. Indirect Effects

- If interest rates don't have a strong direct effect on equity extraction, does that mean the refinancing channel is dead?
- Not necessarily! MP (or changes in rates more generally) can have strong **indirect effects** by changing the amount of home equity households can extract.
- Can influence extractable home equity through impact on payment-to-income limits.
  - Lower rates loosen PTI limits $\implies$ more extractable equity.
  - Particularly likely to bind for cash-out refinancers who usually have lower LTVs.
- Can also influence home equity through impact on house prices.
  - Standard user cost effect.
  - Constraint switching effect from interaction of LTV, PTI limits (Greenwald, 2018).
- Authors control for mark-to-market LTV in main regressions, eliminating indirect effect.

State Dependence of Monetary Policy

- Indirect effects via extractable equity lead to broader notion of state dependence of MP.
- Now, MP should have a stronger effect when **credit and housing conditions** are favorable, not just rate conditions.
  - When home equity is high (more "in the money," PTI limits more likely to bind).
  - When interest rates are high (PTI limits more likely to bind).
- Taper Tantrum likely state where indirect refinancing effects of MP were weak.
  - Low house prices, tighter credit standards $\implies$ extractable home equity not particularly high.
  - Low house prices, interest rates $\implies$ PTI limits largely slack.
- Could find weak total effects even if refinancing channel of MP strong in other contexts.

Conclusion

- Nice paper making an important and understudied point.
  - Alternative instruments for extracting equity exist.
  - Product substitution can dramatically change inference about refinancing channel.
  - Important critique for existing models of state dependence.
- Two issues to overcome (or just explain):
  - Taper Tantrum (unusually) moves long mortgage rates more than shorter HELOC rates, strengthening or flipping sign of substitution relative to typical MP shock.
  - Results cannot capture indirect effects via extractable home equity, which can both strengthen refinancing channel and make it state dependent (albeit in different ways).
- Literature on this topic far from complete, let's keep exploring these interesting issues.