Discussion of More Tax, Less Refi? The Mortgage Interest Deduction and Monetary Policy Pass-Through

By Tess Scharlemann and Eileen van Straelen

Discussion by Daniel G Garrett Wharton

May 16, 2024

Historical background: Original 1913 income tax in US allowed deductions for *all* interest ▶ Not intended as a home ownership subsidy

Just before TCJA 2017: Most individuals take a *standard deduction*, but about 1/3 "itemize" deductions including mortgage interest.

ltemizers effectively pay $r_{it}(1 - \tilde{\tau}_{it}^{pre})$ on mortgage above threshold instead of r_{it}

> Thought of as subsidy for homeownership for those who borrow in sufficient amounts

TCJA 2017: Almost all individuals take a *standard deduction*, about 18 million fewer households now deduct mortgage interest. Marginal incentives:

- ▶ No longer itemizers ("switchers"): $r_{it}(1 \tilde{\tau}_{it}^{pre}) \rightarrow r_{it}$
- Always itemizers: $r_{it}(1 \tilde{\tau}_{it}^{pre}) \rightarrow r_{it}(1 \tilde{\tau}_{it}^{post})$

Historical background: Original 1913 income tax in US allowed deductions for all interest

Not intended as a home ownership subsidy

Just before TCJA 2017: Most individuals take a *standard deduction*, but about 1/3 "itemize" deductions including mortgage interest.

ltemizers effectively pay $r_{it}(1 - \tilde{\tau}_{it}^{pre})$ on mortgage above threshold instead of r_{it}

> Thought of as subsidy for homeownership for those who borrow in sufficient amounts

TCJA 2017: Almost all individuals take a *standard deduction*, about 18 million fewer households now deduct mortgage interest. Marginal incentives:

- ▶ No longer itemizers ("switchers"): $r_{it}(1 \tilde{\tau}_{it}^{pre}) \rightarrow r_{it}$
- Always itemizers: $r_{it}(1 \tilde{\tau}_{it}^{pre}) \rightarrow r_{it}(1 \tilde{\tau}_{it}^{post})$

Historical background: Original 1913 income tax in US allowed deductions for all interest

Not intended as a home ownership subsidy

Just before TCJA 2017: Most individuals take a *standard deduction*, but about 1/3 "itemize" deductions including mortgage interest.

ltemizers effectively pay $r_{it}(1 - \tilde{\tau}_{it}^{pre})$ on mortgage above threshold instead of r_{it}

> Thought of as subsidy for homeownership for those who borrow in sufficient amounts

TCJA 2017: Almost all individuals take a *standard deduction*, about 18 million fewer households now deduct mortgage interest. Marginal incentives:

- ▶ No longer itemizers ("switchers"): $r_{it}(1 \tilde{\tau}_{it}^{pre}) \rightarrow r_{it}$
- ► Always itemizers: $r_{it}(1 \tilde{\tau}_{it}^{pre}) \rightarrow r_{it}(1 \tilde{\tau}_{it}^{post})$



For a mortgage deduction of a given size, TCJA limits MID subsidy across the board

What do we already know about responses to the MID?

Public finance literature tends to find MID is *a bit wasteful* (e.g., Glaeser and Shapiro 2003; Sommer and Sullivan 2018)

My priors before reading the paper:

- Historical ownership changes are somewhere in the small to zero range (maybe some difference with TCJA (Dantas and Hembre 2021))
- Intensive margin responses are larger, with MID leading to larger houses and larger (or smaller, as in Hanson 2020) loans (Hilber and Turner 2014; Gruber, Jensen, and Kleven 2021)

Novel empirical fact from reading the current paper:

MID also dampens monetary passthrough through distorting the refinancing channel

Current Contribution

Novel empirical question (stylized): is the MID an empirically relevant driver of refinancing rates?

- **Excellent data** for the question: merged HMDA-McDash-CRISM
- Straightforward method: diff-in-diff for people with mortgages before and after TCJA depending on proximity to deduction thresholds (tp_{post} tp_{pre}).

Main finding: TCJA weakening MID leads to more refinancing

- No apparent deleverage through paydowns
- ▶ No response in cash out refinancing, extensive or LTV
- Maybe a consumption response in automobile purchases

Broader takeaway about MID (page 33): "[T]he response of mortgage debt to the interest subsidy operates entirely through new homeowners taking on more debt at origination and by buying larger homes" *AND REFINANCING*!

Current Contribution

Novel empirical question (stylized): is the MID an empirically relevant driver of refinancing rates?

- **Excellent data** for the question: merged HMDA-McDash-CRISM
- Straightforward method: diff-in-diff for people with mortgages before and after TCJA depending on proximity to deduction thresholds (tp_{post} tp_{pre}).

Main finding: TCJA weakening MID leads to more refinancing

- No apparent deleverage through paydowns
- ▶ No response in cash out refinancing, extensive or LTV
- Maybe a consumption response in automobile purchases

Broader takeaway about MID (page 33): "[T]he response of mortgage debt to the interest subsidy operates entirely through new homeowners taking on more debt at origination and by buying larger homes" *AND REFINANCING*!

Main finding in a graph (raw data)





Regressions add many FE:

- 50-bps rate gap bins by quarter
- Zip code x quarter
- SALT octile x post
- balance octile x post

Comments

- O Monetary passthrough interpretation assumptions
- **②** Measurement of average vs. marginal MID shock $(tp_{post} tp_{pre})$
- A naive restatement of the question

#1 Monetary passthrough interpretation assumptions

Two stylized facts:

- ▶ TCJA 2017 is a large law change, and MID is weakened for a substantial portion of the population (\approx 30 million households)
- The magnitudes in the paper are large suggesting a lot of new refinancing!

Complication: equilibrium mortgage rates are a function of aggregate refinancing likelihood (thinking of Berger, Milbradt, Tourre, and Vavra (2024) in particular)

- ▶ If MID dampens refinancing incentives, this should lower the cost of financing on average
- Getting rid of MID and inspiring structurally more refinancing leads to higher mortgage costs, potentially counter to monetary policy(?)

What assumptions are needed in GE to get to the paper's interpretation?

#1 Monetary passthrough interpretation assumptions

Two stylized facts:

- ▶ TCJA 2017 is a large law change, and MID is weakened for a substantial portion of the population (\approx 30 million households)
- ▶ The magnitudes in the paper are large suggesting a lot of new refinancing!

Complication: equilibrium mortgage rates are a function of aggregate refinancing likelihood (thinking of Berger, Milbradt, Tourre, and Vavra (2024) in particular)

- ▶ If MID dampens refinancing incentives, this should lower the cost of financing on average
- Getting rid of MID and inspiring structurally more refinancing leads to higher mortgage costs, potentially counter to monetary policy(?)

What assumptions are needed in GE to get to the paper's interpretation?

#2 Measurement of average vs. marginal MID shock

Main shock in regressions is $SubsidyChange_i$ defined as $tp_{post} - tp_{pre}$, where p is the share of the mortgage subject to MID (above itemizing threshold)

It is not obvious how p is being calculated, but I think it's a very hard parameter to pin down

Calibration of p across deduction distribution is important to make statements like "[t]he MID declines the most for always-itemizers and the least for never-itemizers." (page 14)

#2 Measurement of average vs. marginal MID shock



- About \$660 billion of deductions in 2021
- MID should be *counted last* after everything else for how it pushes borrower toward itemization threshold
- The average itemizer in the US in 2021 is not marginal to MID
- This suggests many borrowers are in a p = 1 position, at least after TCJA (marginal=average)
- For such "always itemizers," TCJA can be a small change in incentives

#2 Measurement of average vs. marginal MID shock, example

Numerical example of Dan and his brother, Joe. Both brothers have...

- \$200k in income, pay federal tax rate of 25%
- identical mortgages with \$200k outstanding, rates of 5% (10k deductible interest)
- ► SALT paid of \$12k.
- But only Dan gives to charity, \$19k (US average conditional on itemizing in 2021)

Before TCJA, both brothers itemize and get MID benefit of 2,500 ($10k \times 0.25$)

After TCJA, Joe no longer itemizes (only \$22k deductions)! Dan's charity would push him to itemize regardless (\$28k deductions before MID)

- ► Joe MID change: -\$2,500
- ► Dan MID change: \$0

The switcher is more impacted if there are differences in baseline deductions!

(Section 3.1.3 is unclear to me, Figure 2 left panel shows larger impact at \$23k deductions than \$39k)

#2 Measurement of average vs. marginal MID shock, example

Numerical example of Dan and his brother, Joe. Both brothers have...

- \$200k in income, pay federal tax rate of 25%
- identical mortgages with \$200k outstanding, rates of 5% (10k deductible interest)
- ► SALT paid of \$12k.
- But only Dan gives to charity, \$19k (US average conditional on itemizing in 2021)

Before TCJA, both brothers itemize and get MID benefit of 2,500 ($10k \times 0.25$)

After TCJA, Joe no longer itemizes (only \$22k deductions)! Dan's charity would push him to itemize regardless (\$28k deductions before MID)

- ► Joe MID change: -\$2,500
- ► Dan MID change: \$0

The switcher is more impacted if there are differences in baseline deductions!

(Section 3.1.3 is unclear to me, Figure 2 left panel shows larger impact at \$23k deductions than \$39k)

Garrett

TCJA is definitely a shock to MID, but not most obvious way to ask question: does MID impact monetary policy passthrough?

- MID has existed since 1913
- At any point in time, many people have MID and more don't (selected)
- Monetary policy surprises happen somewhat frequently
- MID is only changed infrequently

TCJA is a great shock because whoever was close to the threshold didn't know TCJA was coming, so limited selection in the **interaction of TCJA and time**. It's also a huge shock.

Can the same argument be made about monetary policy in some instances? (i.e., the interaction of cross sectional variation and uncertain timing of policy)

I would like more clarity on assumption that tax policy meets in particular that sources of monetary policy can't meet

TCJA is definitely a shock to MID, but not most obvious way to ask question: does MID impact monetary policy passthrough?

- MID has existed since 1913
- At any point in time, many people have MID and more don't (selected)
- Monetary policy surprises happen somewhat frequently
- MID is only changed infrequently

TCJA is a great shock because whoever was close to the threshold didn't know TCJA was coming, so limited selection in the **interaction of TCJA and time**. It's also a huge shock.

Can the same argument be made about monetary policy in some instances? (i.e., the interaction of cross sectional variation and uncertain timing of policy)

I would like more clarity on assumption that tax policy meets in particular that sources of monetary policy can't meet





- People with MID or not across the rate cycle (back of the envelope? tax data?)
- Add placebos for the TCJA shock at similar points in rate history



Final Thoughts

- Very important question
- Impressive data compiling
- Really well written paper (thank you)
- Measurement of novel outcomes for biggest shock to MID in US in modern history: MID has important implications for refinancing/monetary policy!
- I would like a little more clarity on the (1) jump to aggregate monetary passthrough, (2) measurement of tax shock, and (3) ruling out interest rate sensitivity correlation with unobservables
- I can't wait to see where the paper goes!!

Final Thoughts

- Very important question
- Impressive data compiling
- Really well written paper (thank you)
- Measurement of novel outcomes for biggest shock to MID in US in modern history: MID has important implications for refinancing/monetary policy!
- I would like a little more clarity on the (1) jump to aggregate monetary passthrough, (2) measurement of tax shock, and (3) ruling out interest rate sensitivity correlation with unobservables
- I can't wait to see where the paper goes!!

Berger, David W, Konstantin Milbradt, Fabrice Tourre, and Joseph S Vavra, 2024, Optimal mortgage refinancing with inattention, Working Paper 32447 National Bureau of Economic Research.

Dantas, Raissa, and Erik Hembre, 2021, Tax incentives and housing decisions: Investigating the effects of the tax cut and jobs act,

- Glaeser, Edward L, and Jesse M Shapiro, 2003, The benefits of the home mortgage interest deduction, *Tax policy and the economy* 17, 37–82.
- Gruber, Jonathan, Amalie Jensen, and Henrik Kleven, 2021, Do people respond to the mortgage interest deduction? quasi-experimental evidence from denmark, *American Economic Journal: Economic Policy* 13, 273–303.
- Hanson, Andrew, 2020, Taxes and borrower behavior: Evidence from the mortgage interest deductibility limit, Journal of Urban Economics 118, 103256.
- Hilber, Christian AL, and Tracy M Turner, 2014, The mortgage interest deduction and its impact on homeownership decisions, *Review of Economics and statistics* 96, 618–637.
- Sommer, Kamila, and Paul Sullivan, 2018, Implications of us tax policy for house prices, rents, and homeownership, American Economic Review 108, 241–274.