

Discussion:

“How resilient is Mortgage Credit Supply?
Evidence from the COVID-19 Pandemic”

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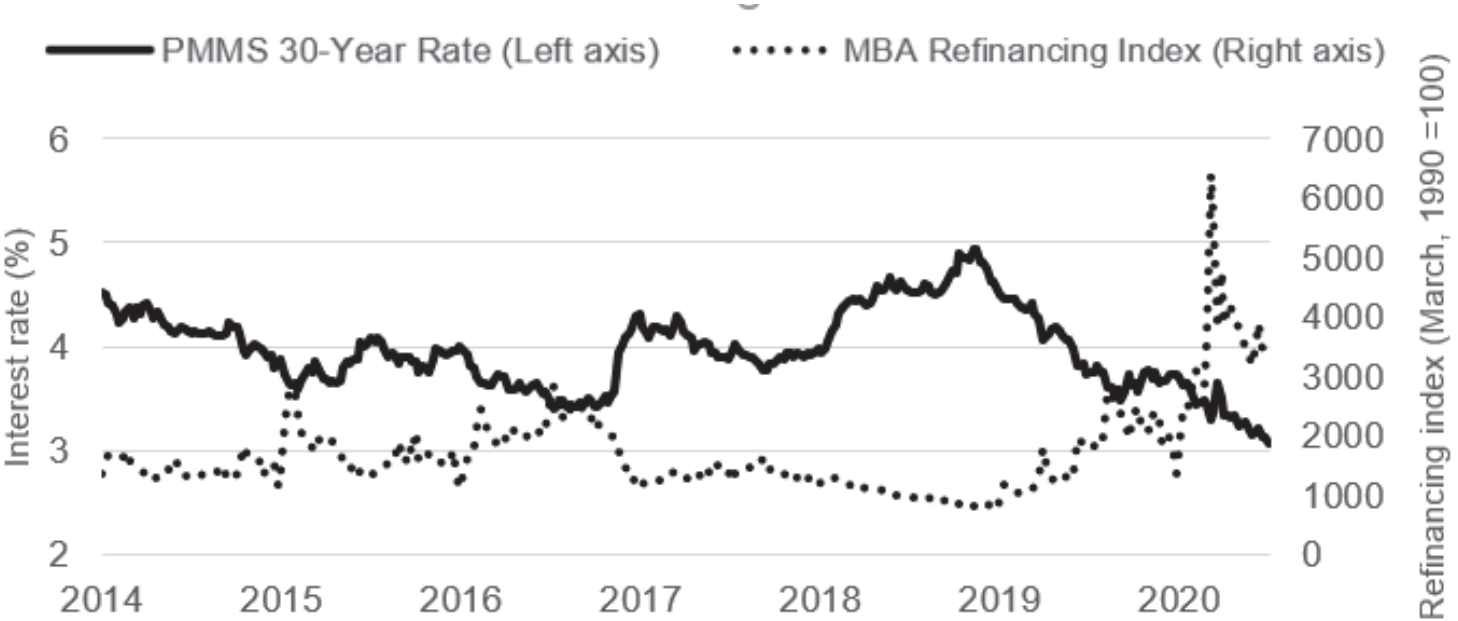
October 29, 2021

Mortgage market in times of COVID

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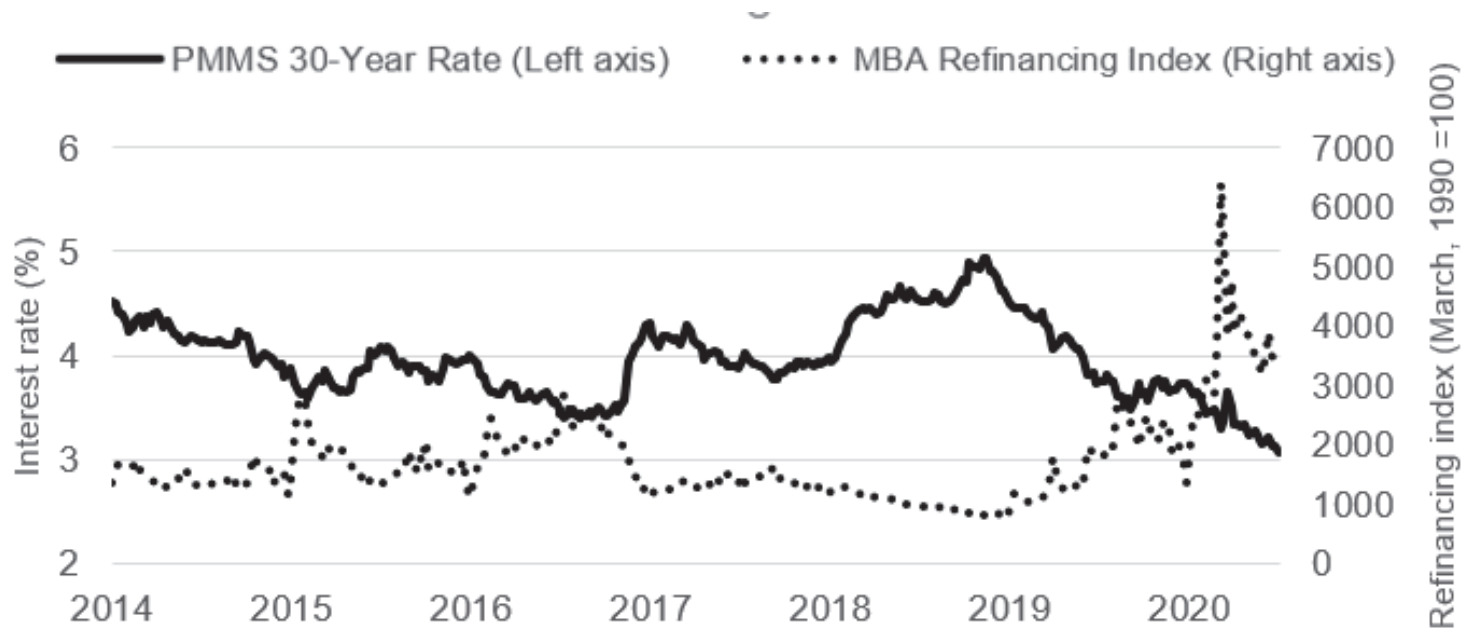
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- ▶ Record low interest rates and record high volume



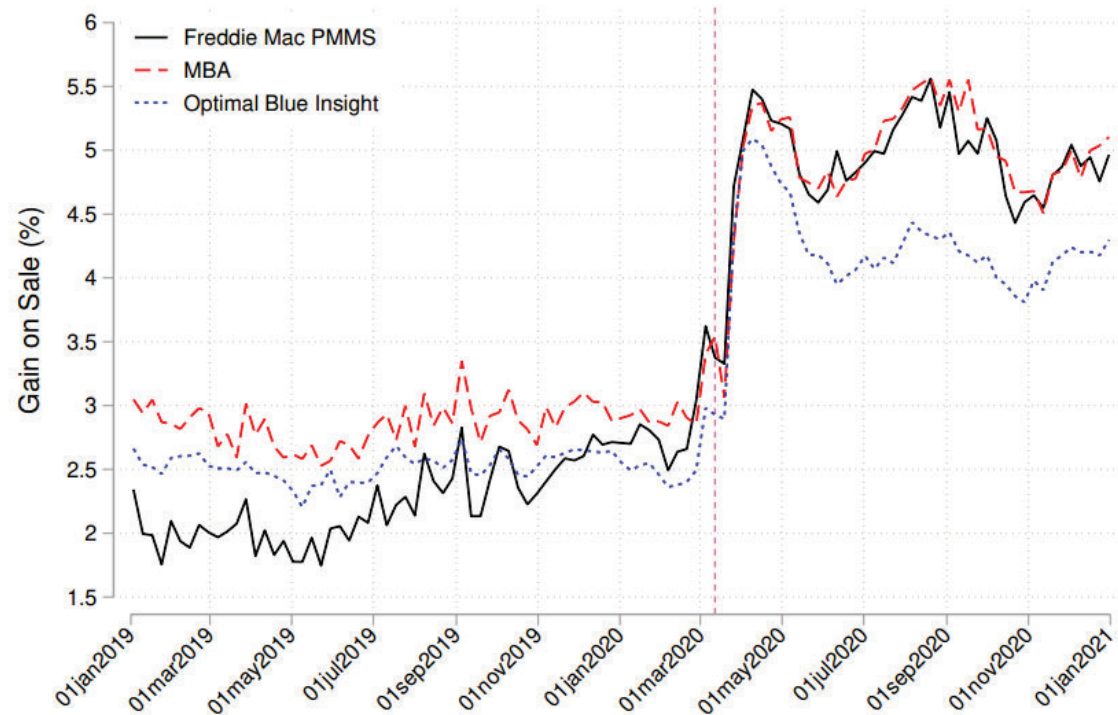
Mortgage market in times of COVID

- ▶ Historic boom in the mortgage market with lots of records:
- ▶ Record low interest rates and record high volume



- ▶ And record high markups!

Record high markups



Primary-secondary spread (panel A) and gain-on-sale (panel B) measured based on the methodologies described in Sections III.A.1 and III.C, respectively. Data sources: Freddie Mac PMMS, Optimal Blue, J.P. Morgan Markets, MBA (via Haver Analytics).

Notes: Vertical line represents the declaration of a national state of emergency in March 13th, 2020.

- ▶ Very careful job measuring markups (Spread, gain on sale, profits). Very convincing evidence!

Main explanation: capacity constraints lead to unusually inelastic credit supply

Lafayette Federal will temporarily stop accepting new applications on all mortgage and home equity programs effective September 20, 2020.

Due to an unprecedented high number of applications, we have made the conscious decision to temporarily suspend accepting new mortgage and home equity requests until further notice. We will continue to support members by honoring all active preapprovals beyond September 20, 2020. Refinance requests received prior to September 20, 2020 will be given until October 1, 2020 to commit to using LFCU for their transaction and lock in their interest rate.

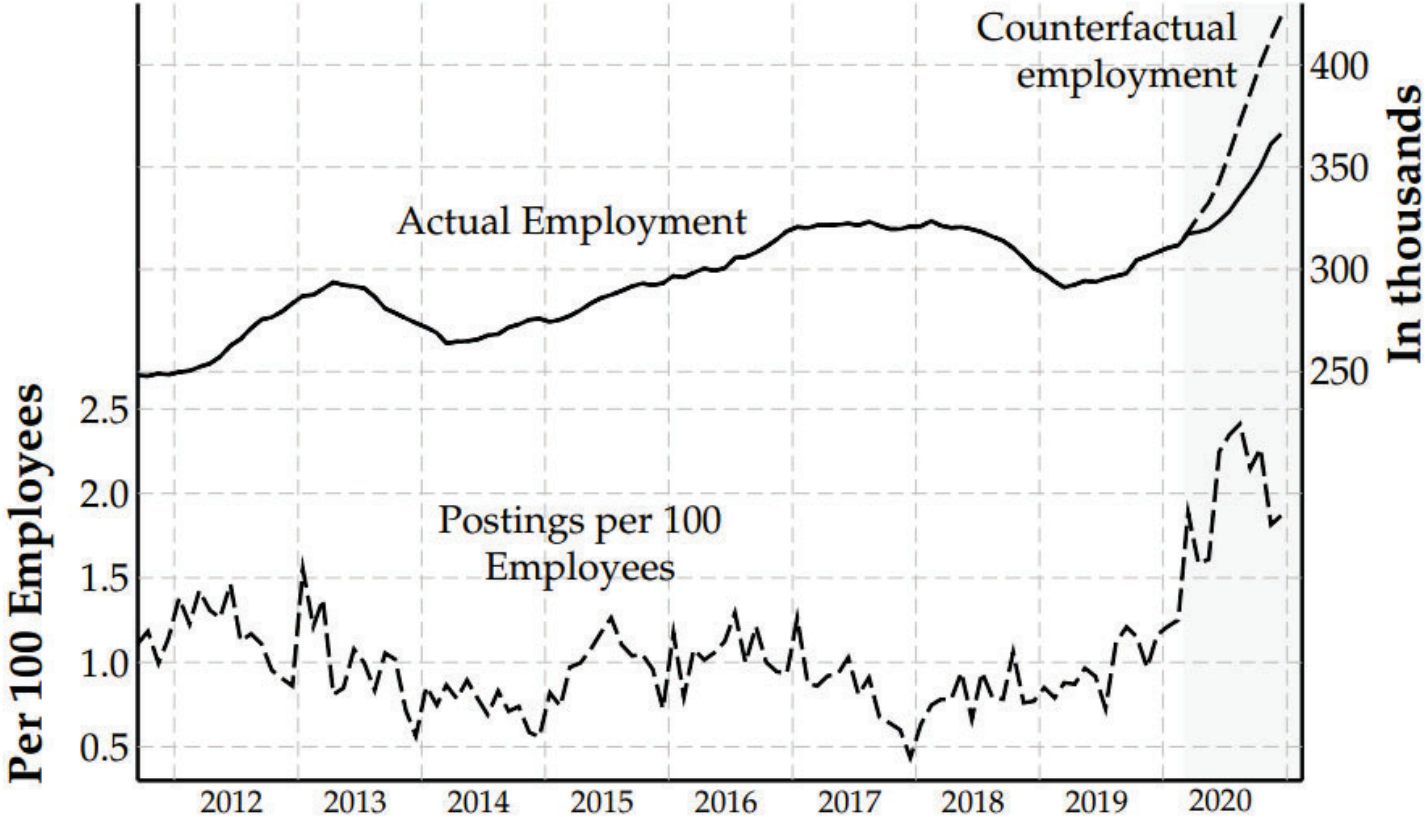
This temporary suspension will allow us time to work through our overwhelming member loan demand while continuing to deliver on our member-focused, service-driven promise.

Our Mortgage Loan Department is still open and available. Should you have general mortgage or home equity questions during this time, you may call (240) 292-5353 or (800) 888-6560 ext. 5353. Thank you for your understanding and patience during this time.



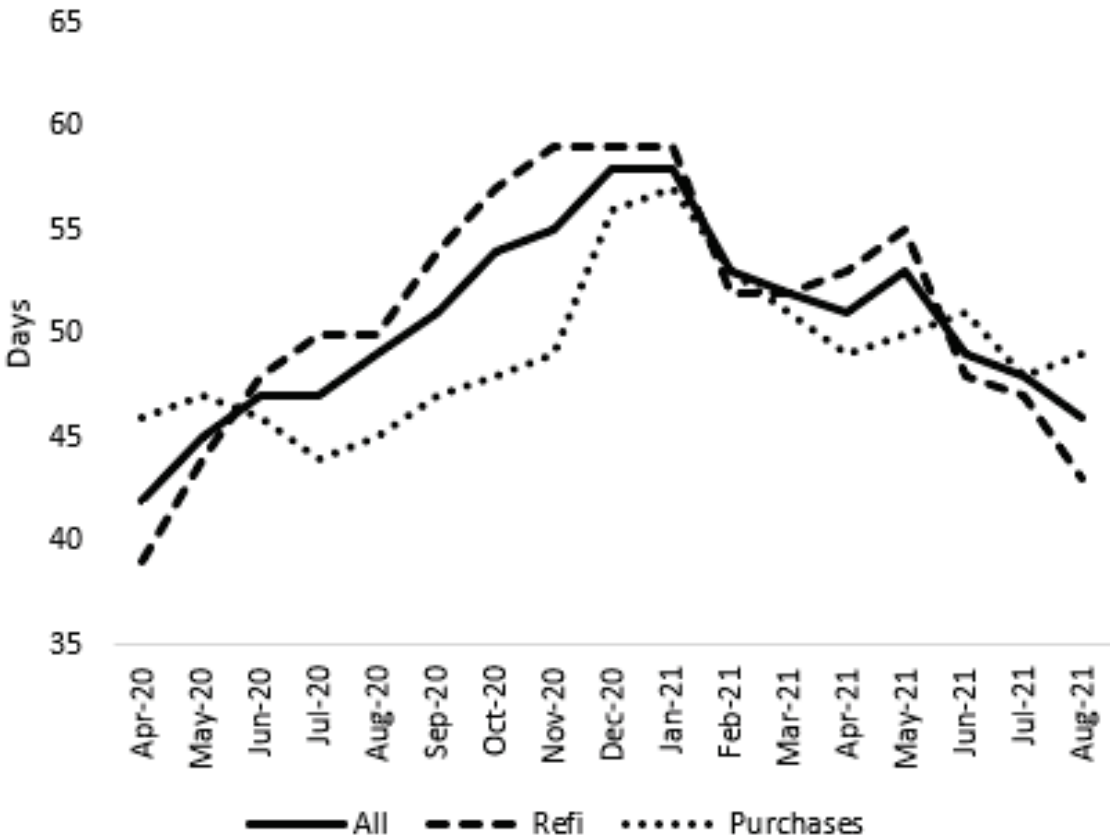
Capacity constraints

A. Mortgage Loan Officer Postings and Employment



Capacity constraints

Application Processing Times for Different Types of Mortgages (Days to close)



Source: Ellie Mae, Origination Insight Report August 2021

A lot of things to like

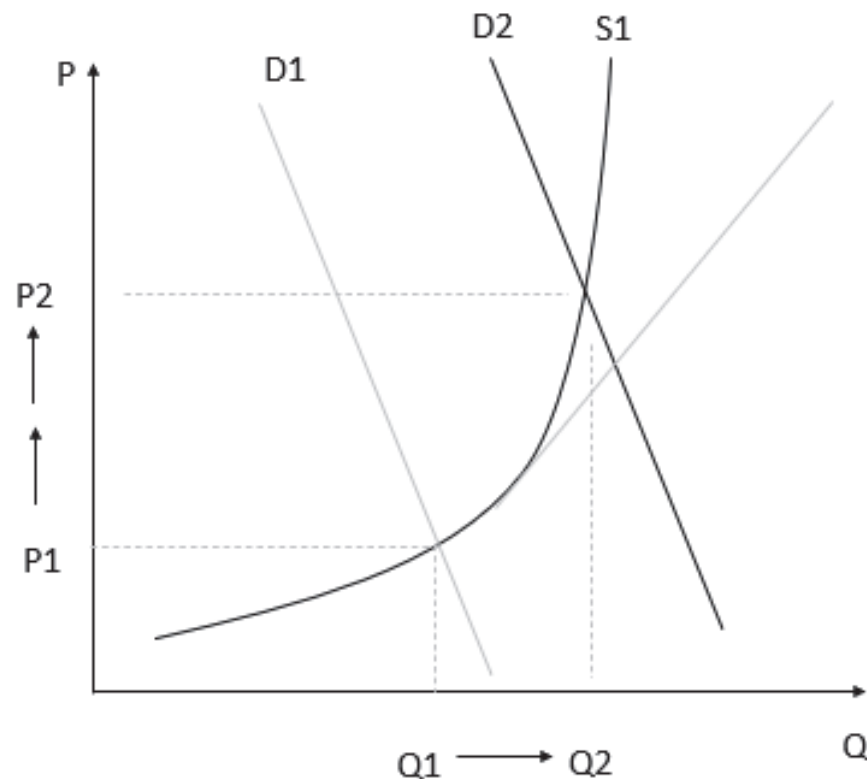
- ▶ Fintech lenders picked up the slack.
- ▶ Comparison to the financial crisis - the secondary market worked well this time.
- ▶ Role of government guarantees - Jumbo and FHA behave different than conforming market.
- ▶ Comparison to other periods of high origination activity.
- ▶ Massive data effort - I counted 9 different sources (there may be more).
- ▶ Robust results with different profit measures, different proxies for demand shocks. Lots of tables and figures, large appendix, and on top of that very well written.

My comments

- ▶ Different ways in which operational issues can affect supply
- ▶ The role of an inelastic demand on equilibrium prices
- ▶ Relation between the severity of the pandemic and interest rates

Supply and demand, and prices

- ▶ This paper - elasticity of credit supply identified out of a demand shock → price and quantities increase, but price increases a lot!



- ▶ The central argument is about moving along the supply curve - to areas of record setting quantities.

Supply and demand, and prices

only slightly during the 2020 boom. A conservative estimate is that **personnel expenses scaled by loan volume were unusually high** by at least 25 bp by 2020:Q4, equivalent to more than 10 percent of average personnel costs measured over the previous five years.

IV.B.2 Operational Issues in Mortgage Origination

The pandemic also made the **process of originating a mortgage more complex** and uncertain. Obtaining documentation of borrower employment and income was often challenging because many businesses were physically closed, and the high rate of job loss often required **checking employment status multiple times before closing** (Berry and Kline, 2020). County recorder offices were closed or operating on limited schedules, making it **hard to complete title searches** and causing **delays in recording mortgages**, which in turn raised concerns about the potential for fraud (Hughes, 2020). Other steps in the process, such as **property appraisals** and obtaining **notarized signings** of closing documents, were more cumbersome due to social distancing. For example, Michael Fratantoni of the Mortgage Bankers Association noted that *“there are steps in the process that are still physical, like the actual mortgage note. If it’s a paper note, someone still has to show up at the office and collect those and send it on to the next step in the process.”* (Berry and Kline, 2020)

- ▶ Is this about a movement along the supply curve? or is this about a shift of the supply curve? Or both?

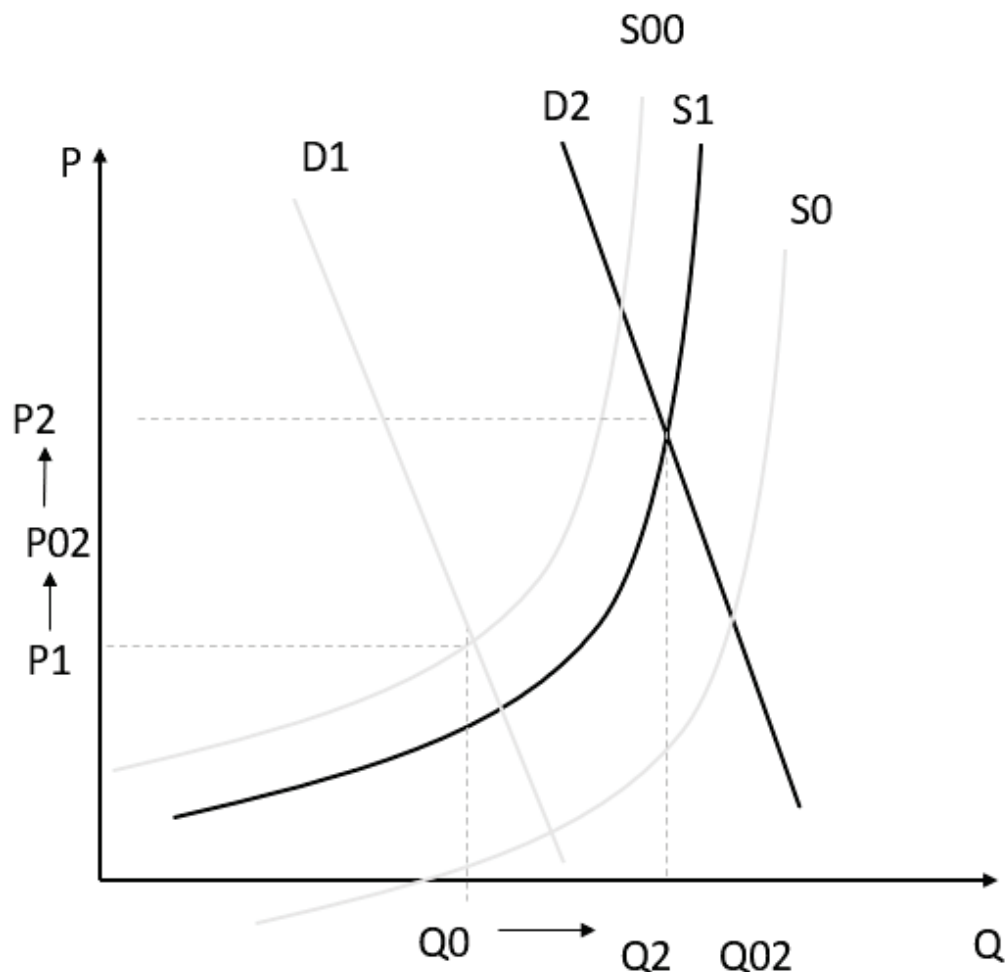
Supply and demand, and prices

Operational issues can affect supply in many ways:

- ▶ Change the cost of marginal loan at high levels of production: hiring more employees to manage volume (elasticity of supply - slope - movement along the curve).
- ▶ Change the cost of originating loans at all levels of production (shift the curve)
- ▶ Think of **operational operational issues as a negative shock at all levels of production**: QE expanded supply of credit, but operational bottlenecks limited its expansionary shift.

Supply shift or movement along the curve? Why does it matter?

- ▶ Movement along the curve upon demand shift - price is determined by elasticity of supply.
- ▶ If supply also shifts, elasticity of demand also matters.



High prices and high quantities relative to pre-pandemic levels. But prices unusually high **also, partly due to inelastic DEMAND**

Supply shift or movement along the curve? Why does it matter?

- ▶ When supply shifts - the elasticity of demand also matters! → an inelastic demand can contribute to explaining the high price of inter-mediation.
- ▶ Elasticity of demand for mortgages is low (De Fusco and Paciorek 2017, Fuster and Zafar 2021).
- ▶ During the pandemic - refinancing boom but: between 83-93% of mortgages that became in the money during the first half of 2020 were not refinanced (Agarwal et.al. 2021).
- ▶ Demand may shift due to refi-incentive, and maybe less inelastic than before, but still fairly inelastic. → **small shifts in supply can lead to substantial impact in the price of inter-mediation.**

Relation between the severity of the pandemic and interest rates

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 - ▶ The mortgage note.
 - ▶ **Mobility restrictions are correlated with the severity of the pandemic.**

Relation between the severity of the pandemic and interest rates

- ▶ No variation in locked rates, despite variation in COVID severity, i.e. despite variation in severity of origination issues, or despite origination costs.
- ▶ Reminded me of Hurst, Keys, Seru and Vavra (2016): no spatial variation in mortgage rates despite variation in default risk- risk adjusted rates are not equalized.
- ▶ Here: cost adjusted rates are not equalized, effectively subsidizing mortgages where the cost is high. This can have re-distributional effects.

Relation between the severity of the pandemic and interest rates

- ▶ How to take this to the data?
- ▶ Is the lack of variation exclusive to securitized markets? Is it exclusive to government backed markets? Portfolio loans, Jumbo market , or FHA market. Optimal Blue may not be feasible, but can be done with McDash.

Small additional suggestions

- ▶ Geographic variation of COVID severity - In Agarwal et.al. 2021 we found a very concave effect, a linear specification or a top quartile specification may mute the effect altogether. Maybe worth trying a bottom quartile effect.
- ▶ Google search - intensive or extensive margin? Maybe normalize by mortgages recently in the money from McDash?

Overall

- ▶ Great paper - I learned a lot reading it, and I encourage everyone to take a look at it!