Discussion of "Printing Away the Mortgages: Fiscal Inflation and the Post-Covid Housing Boom"

William Diamond, Tim Landvoigt, and German Sanchez Sanchez

Wenhao Li

USC Marshall

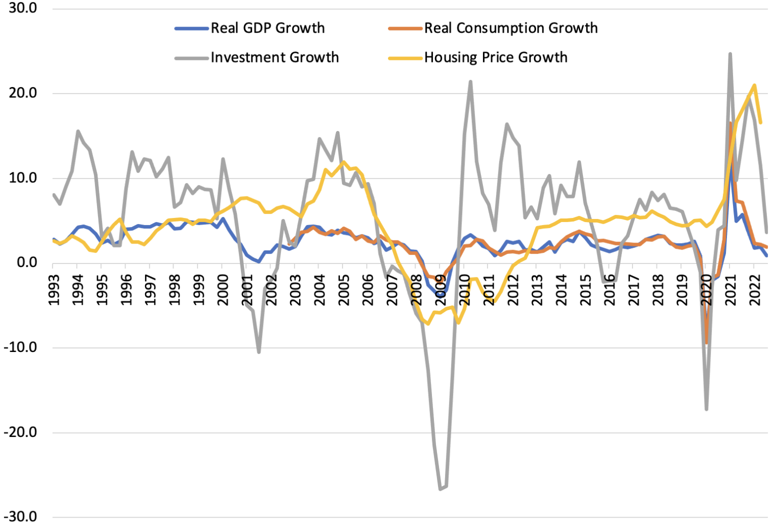
2023 UBC Winter Finance Meeting

Summary

- Motivation question: what is the impact of fiscal policy during and after COVID-19?
- Approach: a quantitative model with fiscal and monetary policies, financial intermediation, houses, and mortgages. Overall: an impressive model!
- Key features
  - Liquidity and inflation: Cash-in-advance constraints + Sticky prices.
  - Liquid assets: government debt = reserves
  - Banks: Deposits backed by liquid assets + mortgages.
  - Mortgage: long-term with strategic default.
  - Fiscal policy: lump-sum tax transfers.
  - Monetary policy: interest rate on reserves.

Macroeconomic Dynamics in the Data

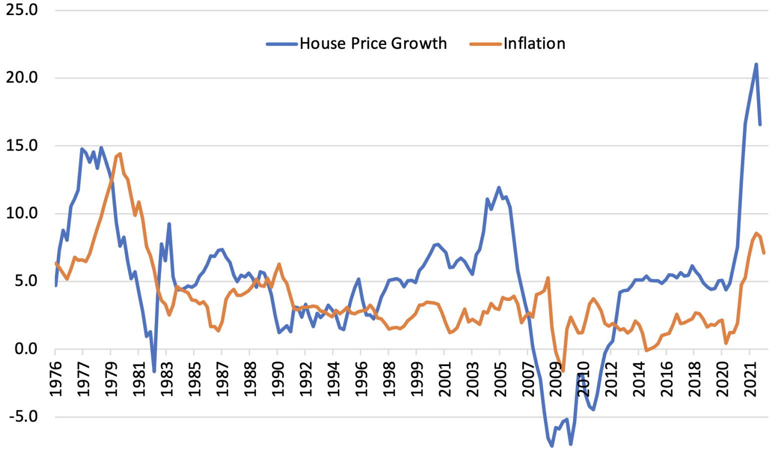
- COVID-19: Investment reaction much smaller. Large boom in housing.



Data: flow of funds. house price is based on transactions.

House Price and Inflation

- COVID-19: house price perfectly in sync with inflation.



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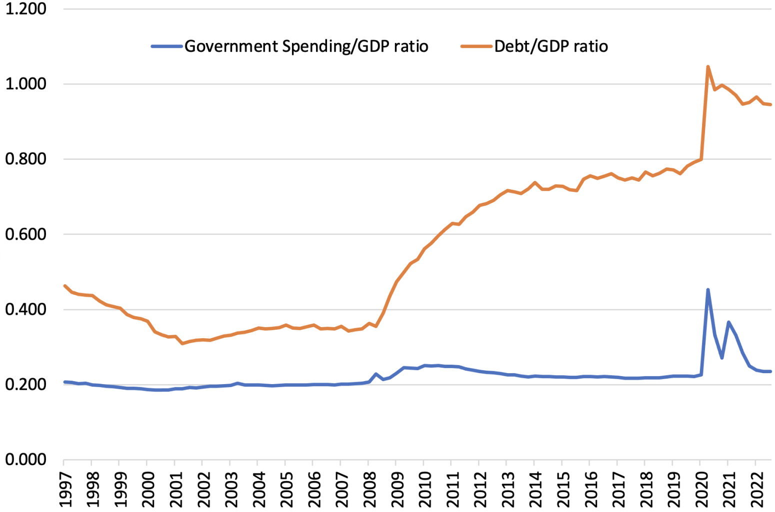
Government Spending and Government Debt

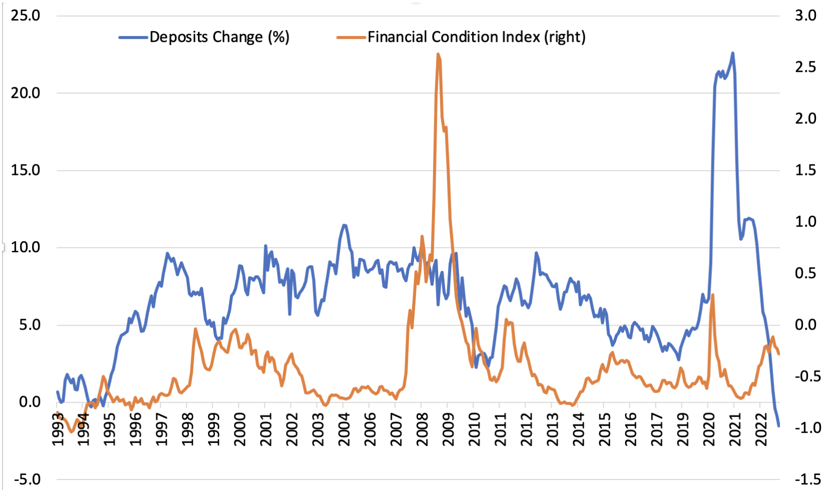
- COVID-19: surge in government spending and Debt/GDP.



Data: flow of funds. Debt is debt held by the public.

Bank Deposits and Financial Conditions

- COVID-19: mild financial market distress, but huge deposit flows.



Data: flow of funds. Financial condition index is a combination of multiple debt market indices.

Policy Responses During COVID-19

- Monetary policy
  - QE infinity: unlimited purchases of Agency MBS and Treasuries.
  - Lower interest rate and forward guidance.
  - Bank funding facilities.
  - Dollar swap lines.

- Financial regulations.
  - Relaxation of liquidity and capital requirements.
  - No bank dividend payouts.

- Lending programs to firms.
  - Pay check protection (PPP).
  - Main street lending.
  - Corporate bond purchase programs.

- Helicopter money
  - Directly sending checks to households.

Mechanism: Impact of Fiscal Policy

- Transfers to households that increase liquidity and redistribute wealth.

$$p_t c_t^{liq} \leq d_t$$

$$d_{t+1} = \underbrace{(1+r_t)}_{\text{nominal rate on deposits}} \cdot \Big(d_t - p_t(qc_t + (1-q)c_t^{liq}) + ... \Big) - \underbrace{t_{t+1}}_{\text{transfer}}$$

- Larger supply of government debt that provides liquidity.

$$\underbrace{G_t^{\$}}_{\text{government debt}} + \underbrace{\lambda p_{t+1}^h h_t}_{\text{mortgage}} = \underbrace{D_t^{\$}}_{\text{deposits}}$$

- Equilibrium impact on interest rate (government budget constraint).

$$\underbrace{G_{t+1}}_{\text{new debt}} + \underbrace{T_{t+1}}_{\text{new taxation}} = \underbrace{R_t G_t}_{\text{principal + interest payment}}$$

Mechanism: House Price

- Mortgage-backed security and money supply.

$$\underbrace{G_t^{\$}}_{\text{government debt}} + \underbrace{\lambda p_{t+1}^h h_t}_{\text{mortgage}} = \underbrace{D_t^{\$}}_{\text{deposits}}$$

  Limited supply $h_t = \bar{h}$. If only mortgage is on the asset side, we have

$$\lambda p_{t+1}^h \bar{h} = D_t^{\$}$$

  Thus, money growth coincides with house price.

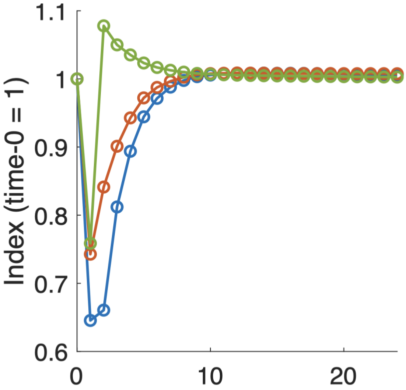
- Saver wealth and supply of mortgage.
  - Fiscal transfer is to savers (not borrowers), redistributing wealth to savers and increasing mortgage supply.

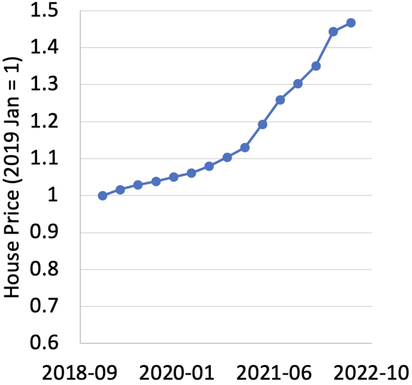
Comment 1: The nature of COVID shocks and the role of fiscal policy

- COVID-19 contains multiple aspects:
  - Aggregate demand shock that reduces consumption (Brinca et al 2020; Guerrieri et al., 2021).
  - Aggregate supply shock (barrier to flows of goods and services, labor shortage)
  - A work-from-home shock that leads to larger demand for housing but reduced demand for offices (Gupta, Mittal, and Nieuwerburgh, 2022)
- Current model: unexpected shock to labor supply and aggregate demand.
- Question: can we distinguish the impact of fiscal policy from the house demand shock?

House price: data v.s. model

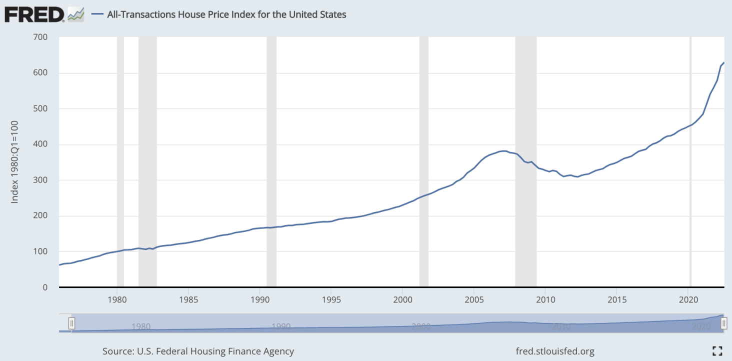
- Puzzling: house price does not have a noticeable decline in the data. Demand for housing counteracted the decline?





Contrast between 2008 Crisis and COVID-19

- The model has a financial sector that captures the key features of financial intermediation, and therefore, speaking to the 2008 financial crisis.
- Both 2008 financial crisis and COVID-19 feature monetary and fiscal response, although scales are much larger for COVID-19. Why the contrast in house price?



Comment 2: Shall we worry about the "scars" from fiscal stimulus?

- Government lending distorts firm quality distribution and impairs effectiveness of fighting against future crises (Li and Li 2022).
  - Mechanism: high-quality and low-quality firms get similar treatment in lending programs.
  - Government intervention saves quantity, but distorts quality and reduces growth rate.
  - The built-in expectations of future government interventions encourages more inefficient growth of low-quality firms.

- It seems we are in a new regime with persistently high debt/GDP. Future rate raises are more difficult given concerns about government borrowing cost.

Comment 3: The impact of government debt on bank deposits and lending

- Government debt crowds out bank deposits and curbs bank lending (Krishnamurthy and Vissing-Jorgensen, 2015; Li, Ma, and Zhao, 2020).
- For macro modeling, see the estimation of a general demand of deposits and Treasuries in Krishnamurthy and Li (2022).

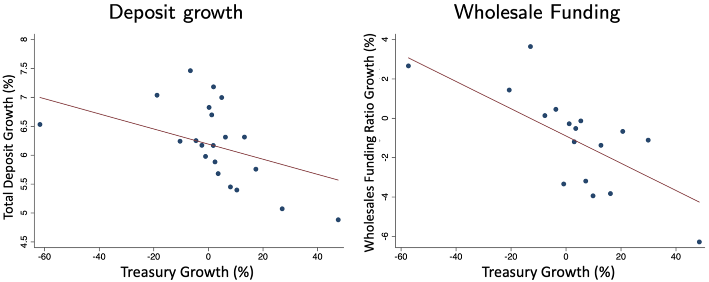


Figure from Li, Ma, and Zhao (2020). Bin-scatter plots already remove the impact of fed funds rate.

Summary

- **A timely paper** to evaluate the impact of fiscal interventions in crises and draw lessons for future crises!
- **Impressive** model that incorporates housing, defaultable mortgages, financial intermediation and financial regulation, fiscal policy and monetary policy.
- My main comment is to sharpen the quantitative evaluation on house price and better contrast with data. Also caution against the long-term downside of fiscal stimulus.