The Cost of COVID – Recent Drops in Market Liquidity May Foreshadow Major Drops in US Commercial Real Estate Markets

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Real or Surreal? PDP Symposium, Preliminary results - subject to revision
Introduction
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- PDP publishes 2 products, of which 1 is the “Liquidity Metric” for major US pvt commercial real estate markets
- Here we quantify “Liquidity Metric” based on gap between buyer and seller reservation prices (Van Dijk, Geltner, and van de Minne, 2020)
- Market liquidity is defined as the ease of selling a property at fair value
- Due to buyer and seller behavior liquidity metric leads price movements
- A white paper with an extra in depth-analysis of a regular update in wake of C19-crisis (recent update with data up to June 2020):
  - Construct the method at a monthly scale for 8 MSAs and by 4 property type sectors
  - Compare recent drops with Global Financial Crisis (GFC)
  - Look at price implications based on historical lead-lag relationship
- Based on private commercial real estate data only (RCA)
Poll questions

• What do you think that will happen to prices in the short to medium-run in commercial real estate in major US cities related to COVID-19 and the inevitable economic downturn (GFC average drop in 7 major cities about 30%)?
  (a) Increase or flatten
  (b) Decrease mildly (<10%)
  (c) Decrease moderately (10-20%)
  (d) Decrease substantially (20-30%)
  (e) Decrease extremely (>30%)

• How long do you think it will take for prices to bounce back (GFC took about 2.5 years)?
  (a) I didn’t expect a price decrease in the first place
  (b) Within 1 year
  (c) Within 1 - 2.5 years
  (d) More than 2.5 years
  (e) Never
Stylized theory
Measuring liquidity: reservation price and downturn

![Diagram showing normal market and reservation prices]

- **Reservation Prices**
  - Normal market
  - Demand
  - Supply
  - $P_0$
Measuring liquidity: reservation price and downturn

Demand
Supply

Normal market

Reservation Prices

$P_0$

$DSG_0$
Measuring liquidity: reservation price and downturn

\[ P_0 = P_1 \]
Measuring liquidity: reservation price and downturn

$$P_0 = P_1$$

**Bust**

$$ DS G_1 $$

Reservation Prices
Measuring liquidity: reservation price and downturn
Empirical results
Indices: New York
Comparison with GFC for different MSAs

- New York
- San Francisco
- Washington, DC
- Chicago
- Los Angeles
- Atlanta
- Boston
- Seattle

Drop in Liquidity Metric in %-points of Price Level

- GFC DSG drop (First 6 months)
- CV19-crisis DSG Drop (6 months, YTD 2020)
- GFC Total DSG drop (approx. 2.5 years)
Indices: West Office

West Office

- RCA CPPI (06Q4=100)
- Liquidity (Monthly)
Comparison with GFC for industry subtypes

Drop in Liquidity Metric in %-points of Price Level

- GFC DSG drop (First 6 months)
- CV19-crisis DSG Drop (6 months, YTD 2020)
- GFC Total DSG drop (approx. 2.5 years)
Liquidity implied price implications

• Calculate historical Price-to-Liquidity ratio (PL-ratio) which is the elasticity of price growth to the Liquidity Metric based on GFC relationship and panel regression models (4 models in total)
• Back-of-the-envelope calculation to infer price effects of recent liquidity drops
• This requires (at least) 3 assumptions:
  • Historical price-liquidity relationship is indicative for current elasticity
  • We have seen the full drop in market liquidity related to C19 in Jan - Jun 2020
  • There are no feedback effects
Liquidity implied price implications

Average predicted price drop and error bounds based on different models
Conclusions
Conclusions

- We document substantial drops in market liquidity in major US commercial real estate markets in first half of 2020
- Drops are happening much quicker than during the GFC
- Drops are almost as big as the total GFC drop
- Retail and Office markets are hit hardest
- Prices are still stable/increase in 2020Q2 (except for West Coast cities)
- Simple framework to infer effects on prices based on historical lead-lag relationship
- Price drops of 20%–35% are predicted
- Special report update expected in August
  (http://pricedynamicsplatform.mit.edu/ and SSRN)

Van Dijk, D., A. Kinsella Thompson, and D. Geltner (2020). Recent drops in market liquidity may foreshadow major drops in US commercial real estate markets. *Available at SSRN 3604606.*
Extra Figure: Regional drops in industry types
Extra Indices: Boston

RCA CPPI (06Q4=100) vs Liquidity (Monthly)