#### Discussion: Understanding the Real Estate Market in China

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Disclaimer: The views expressed here are solely those of the author and do not necessarily reflect those of the Board of Governors of the Federal Reserve System.

## Questions

- What are some key features of China's housing market?
- What are the primary drivers of the rapid house price appreciation in China?
- What policies can lead to a more sustainable pace of house price growth?

## Key features of China's Housing Market

- Rapid price appreciation over the years, driven by land prices, significantly higher than other countries (Deng)
- Heterogeneous situations across Chinese cities (All)
  - Demand outstripped supply in Tier-1 and some Tier-2 cities
  - Excess supply and inventory built up in lower-tier cities
  - As a result: coexistence between rapid price increase and high inventory
- High house price to income level ratio
- Evolving role of housing in economy: rising real estate consumption of services as a share of GDP over the years (Liu)

## What are the drivers of rapid house price appreciation in China?

#### Supply:

#### **Role of local government**

- Local governments have monopoly over local land market, monopolistic competition market structure in residential housing market
- Local governments with more reliance on land sales → higher supply elasticity
- Inefficient land allocations in highly demanded cities

#### <u>Demand:</u>

#### Lack of alternative investment instruments

Low holding costs for real estate ownership and under-developed rental market

Urbanization and fast population growth in some cities

High income growth

Cultural pressure to be house owner

## Policy Prescription

#### Supply:

- Break the supply monopoly of land and housing by local governments
- Implement property tax
- Higher floor area ratio, construct multi-unit buidings
- Less land allocation to agriculture in highly demanded cities
- Expand secondary real estate market

#### Demand:

- Continued macroprudential policies, i.e. tax on short-term holders, introduce holding costs
- Introduce public affordable housing
- Develop rental market and equalize incentives to rent vs. buy
- Introduce alternative investment instruments, i.e. REIT/ABS
- Population control in 1<sup>st</sup> tiered cities

#### Contributions

- Lots of insights into the structural issues in China's housing market
- Contribute to understanding in whether the rise in China's housing prices is a bubble
- Offers a glimpse of latest policy thinking post 19<sup>th</sup> party congress
- Cross-country comparisons to China's housing market

#### Comments

- 1. Emphasis on the role of structural explanations. What about cyclical drivers of the housing market?
- 2. How effective are macro prudential policies in controlling housing price appreciation? What role for monetary policy?
- 3. Role of capital account management?

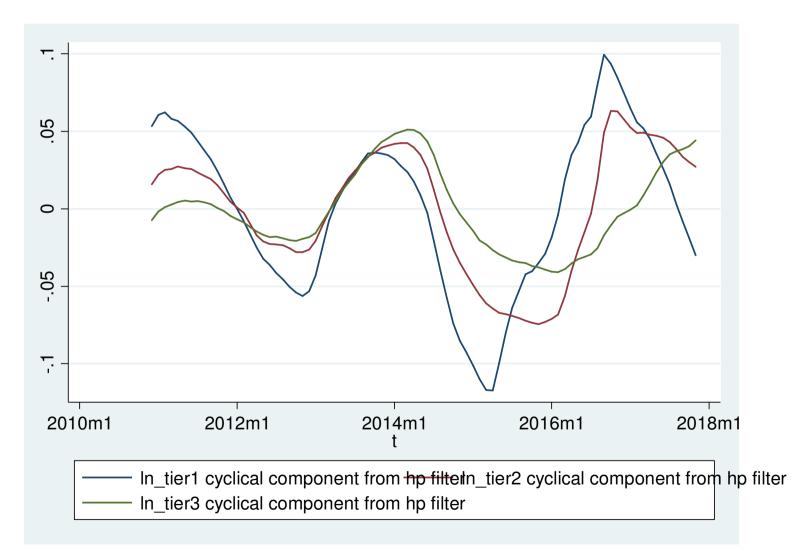
## Cyclical Drivers

• "Housing is the business cycle." -Ed Leamer (2007, Jackson Hole)

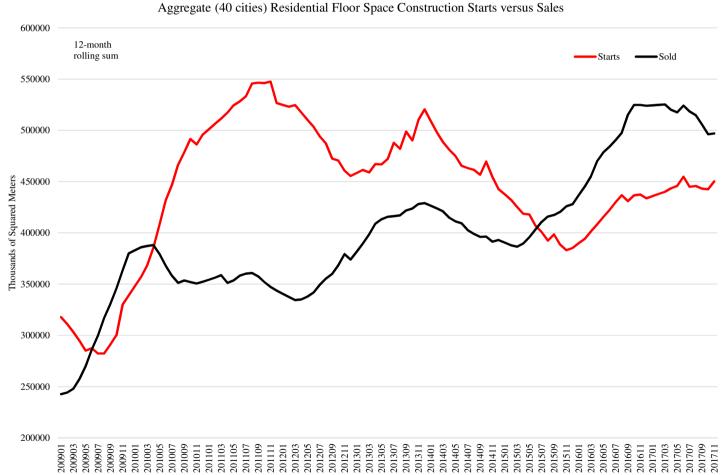
Percent Index: Dec2010=100 **Tier 1 Cities** Monthly percent change, annual rate **Tier 2 Cities** -5 -10 **Tier 3 Cities** -15 

Residential Property Prices (Dec2010=100)

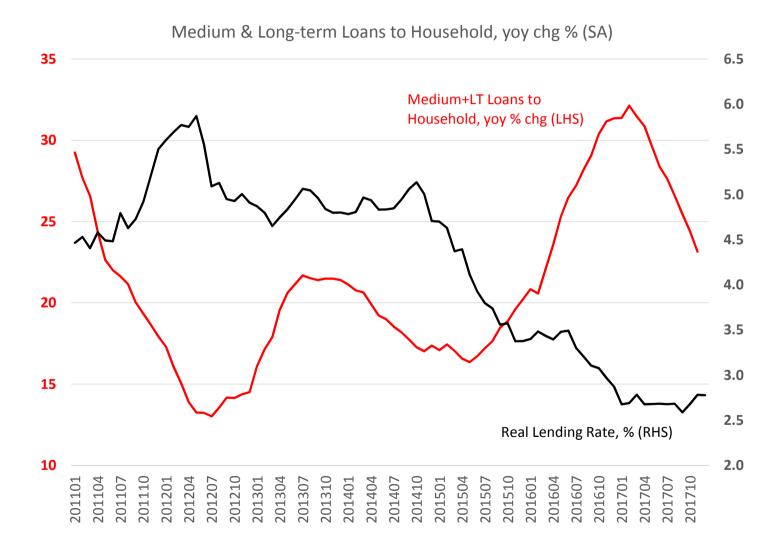
### **HP-Filtered**



# Current cycle: destocking after an extended period of excess inventories across all tiers of cities



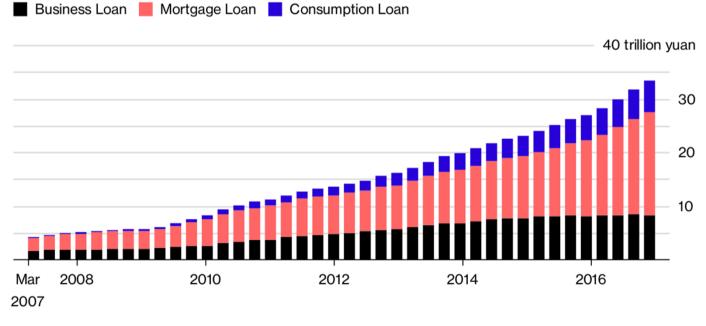
## Mortgage credit growth rose rapidly in current cycle



## Transmission of monetary policy via mortgage credit

#### **Debt Drivers**

Rise of Chinese household debt is mainly due to soaring mortgages



Source: IIF, Bloomberg

Bloomberg

Does co-existence of rapid house price appreciation and high inventory in some cities means that monetary factor not a key cause of current cycle? (Hu)

- Even if size of monetary shock is same across cities, prices would rise more in more supply inelastic cities.
- Overall user cost of capital also fell more in higher-tiered cities due to higher increase in expected house appreciation

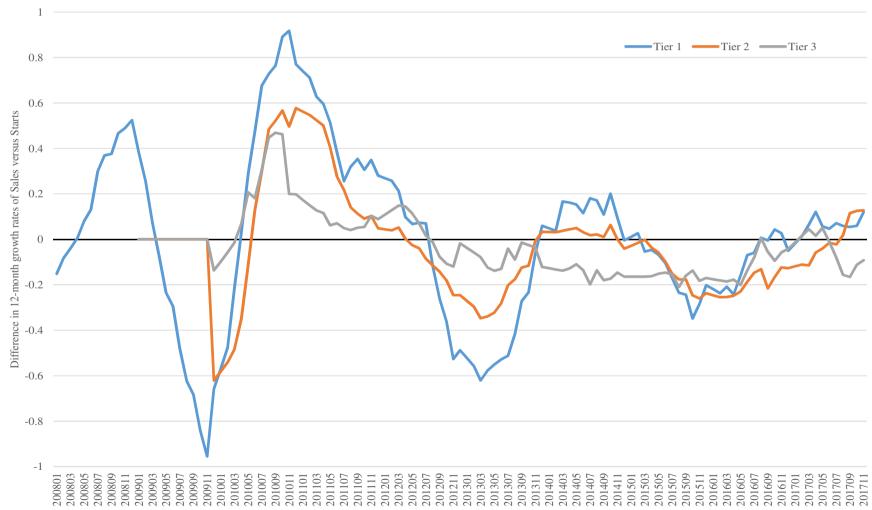
Shadow cost of home-owning = borrowing cost + opportunity cost +depreciation/ maintaneance cost expected return

Increases more for cities with more inelastic supply

 $\rightarrow$  larger demand shift in higher-tiered cities

*Level* of excess inventory is always higher in lower tier cities, but a positive monetary shock should cause excess inventory in both cities to move toward the same direction: Synchronized destocking across tiers of cities

Residential Floor Space Starts - Sales (12m sum yoy%)



### Bottomline

- Chinese cities are heterogeneous and have unique features
- But not an exception to the common experience from the rest of the world: monetary policy matters
  - Ahearne et al (2005): finds that house price booms are typically preceded by a period of easing monetary policy across 18 major industrial countries since 1970.
  - IMF Global Housing Report (2016, 2017): credit has grown faster and monetary policy looser in countries experiencing housing boom since the GFC
  - Recent example: Germany no exception
    - Liu used Germany as an example of stable housing prices and insensitivity to monetary policy. Sample ends in 2012. House prices in major cities took off since.

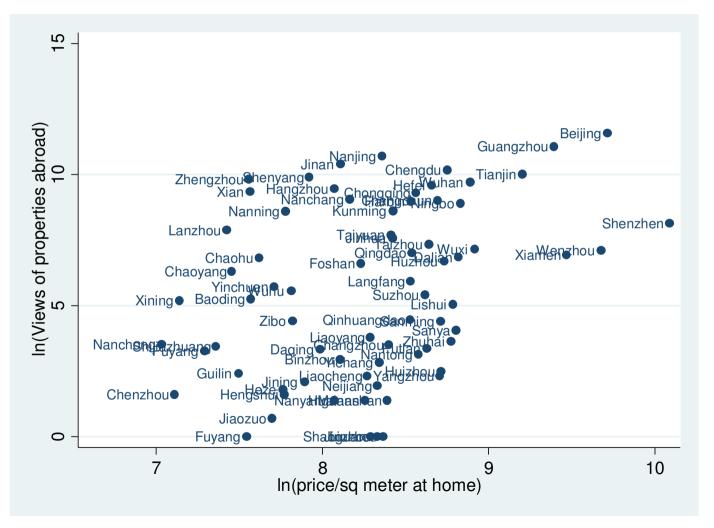
### Evidence of macro prudential policies in controlling house price appreciation? What role for monetary policy?

- Macro-prudential policies proven effective in controlling leverage and reducing financial stability risks
  - Intended to address externalities and market failures associated with activities of financial intermediaries and markets that may lead to excessive pro-cyclicality and build up of systemic risk (Claessens, 2015)
- Mixed evidence with regard to effectiveness of controlling housing price appreciation
  - Deng showed data of macro-prudential policies in Beijing only short-term impact
  - Hong Kong
  - BIS study (Kuttner and Shim, 2013), 57 countries over three decades. Among 9 non-interest rate policy tools aimed at stabilizing house prices and credit, *only* <u>a change in housing-related taxes</u> have a discernible impact on house price appreciation
- Monetary polices too blunt of an instrument to use for housing prices. (Bernanke, 2010)
- For macroprudential policies to be most effective, monetary policy should complement (Bruno, Shim, Shin, 2015)

#### Role of capital account management

- Lack of alternative forms of investment vehicles for high savings
- Alternative assets (2009-2017): deposit rates (about 5%), equity returns (2%), buying house in Los Angeles (plus FX return): 7%
- Tightening of capital controls since late 2016
- In 2017, net private outflows decreased by almost \$600 billion (5% of GDP!)

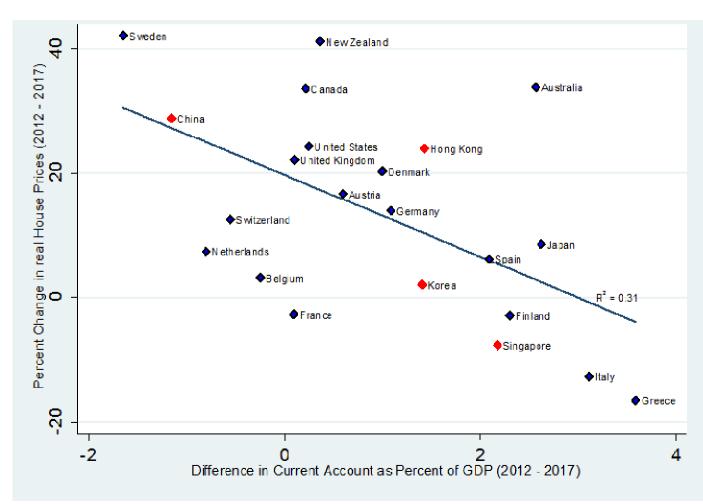
Capital controls tend to affect outflows from Chinese cities with higher house prices



Source: Converse and Wong (forthcoming)

## Capital controls likely amplified domestic house demand in the current cycle

Housing Prices vs. Net Capital Outflows, 2012-2017



Several studies have found that capital flows more important in accounting for real estate valuation than other the real interest rate and inflation. (Aizenman, Jinjarak, 2011; Bernanke, 2010; Gete, 2015)

### Thank you!