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Comments on "The Great Wall of Debt: Real Estate, Corruption, and Chinese Local Government Credit Spreads"

by Andrew Ang, Jennie Bai, Hao Zhou

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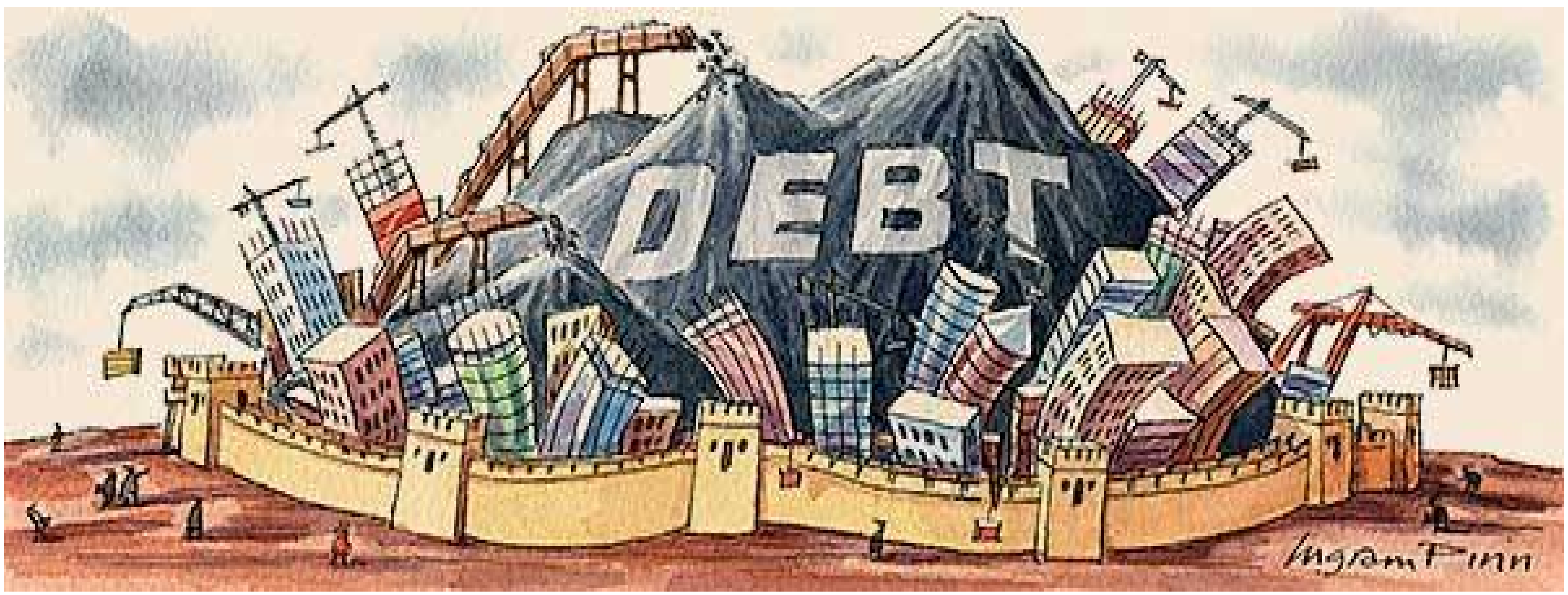
USC and the NBER



The key points

- Chengtou bonds [urban construction and investment bonds] play a major role in financing for the local governments and represents a growing share of debt explosion in China.
- However, there has never been single default of Chengtou bonds, because they are mostly backed by land use rights as collaterals and issued by local government financing vehicles (LGFVs).
- Therefore, the local governments implicitly guarantee Chengtou bonds, and under current budget law, the central government is ultimately responsible for the finances of all local governments.
- The authors find that [local real estate GDP/local GDP] is the most important driver of the cross-section of Chengtou bonds excess yields.

- Higher [local real estate GDP/local GDP] is associated with lower risk premia (controlling for service value-added GDP, wholesale and retail value-added GDP, hotel value-added GDP, local real GDP growth, fiscal surplus, all scaled by the local GDP).
- They construct an index of corruption based on the officials investigated and find a significantly positive correlation between risk-adjusted Chengtou bond yields and the corruption index.
- There is also a nonlinear effect -- for high corruption provinces, high real estate GDP increases Chengtou bond yields; while low corruption regions enjoy low financing cost due to high real estate value.
- Starting from 2015, the Ministry of Finance has adopted a five-year debt-swap plan for exchanging Chengtou bonds (and loans) with provincial municipal bonds, similar to the U.S. municipal bonds.

- However, it is not clear to the authors whether the current provincial municipal bonds have priced in properly the important risk exposures identified by their study -- real estate and political risk.
- The authors conclude that the anti-corruption campaign may have a positive economic value - the funding costs differentiate significantly and meaningfully among more and less corrupt provinces, which leads to more efficient capital allocation in China.

An important contribution. Yet, MIND THE GAPS

- **The identification of the impact of corruption and fighting corruption hinges on controlling properly the key economic factors.**

I have questions about several missing factors.

- **A possible gap - not accounting properly for the impact of local housing GDP on crowding out local Chinese private investment, and the for the adverse future growth implications of this crowding out.**

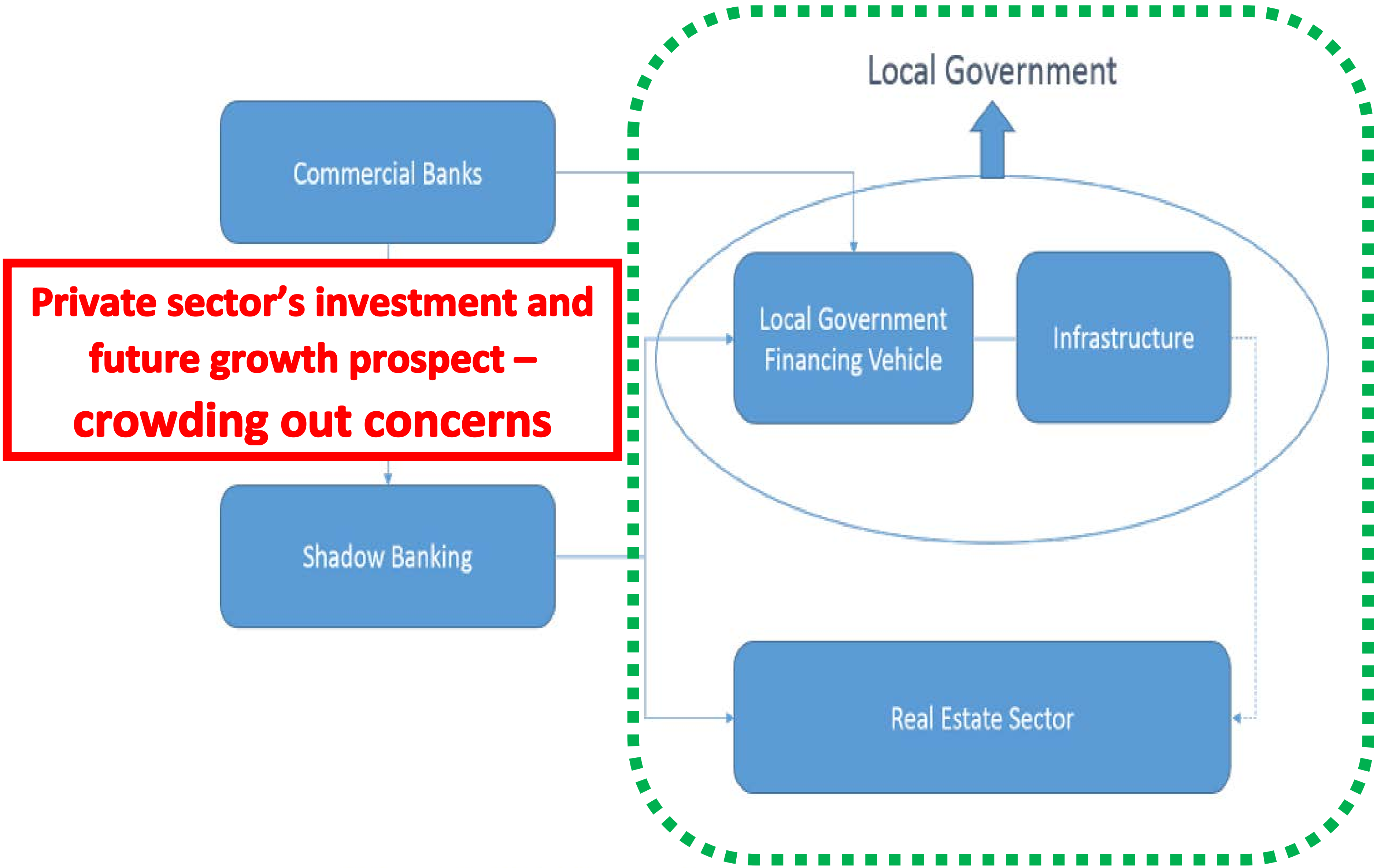


Figure 2: The Nexus of Chinese Local Government Debt

Song, Storesletten, and Zilibotti, 2011, **Growing like China**. AER
High-productivity private-sector firms finance investments through internal savings or by borrowing from the shadow banking at very high interest rates, while low-productivity state-owned firms survive because of better access to credit.

Cong and Ponticelli (2016) - under China's economic stimulus plan new bank credit was allocated disproportionately to low-productivity state-owned.
http://www.eief.it/files/2016/06/ponticelli.pdf
Conjecture: greater ease of funding of key players [State enterprise, real estate, etc.] crowds out the most productive sector: high productivity, small and emerging private firms.

The evidence supports this conjecture.

PUBLIC DEBT AND PRIVATE FIRM FUNDING: EVIDENCE FROM CHINESE CITIES Huang, Pagano and Panizza, 2015

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2834826

In China, local public debt issuance between 2006 and 2013 crowded out investment by private manufacturing firms by tightening their funding constraints, while it did not affect state-owned and foreign firms. They establish this result in three ways.

- local public debt is inversely correlated with the city-level investment ratio of domestic private manufacturing firms.
- Instrumental variable regressions indicate that this link is causal. Local public debt has a larger negative effect on investment by private firms in industries more dependent on external funding.
- In cities with high government debt, firm-level investment is more sensitive to internal funding, also when this sensitivity is estimated jointly with the firms likelihood of being credit-

constrained. These results suggest that the massive public debt issuance associated with the post-2008 fiscal stimulus curtailed private investment thus weakening China's long-term growth prospects.

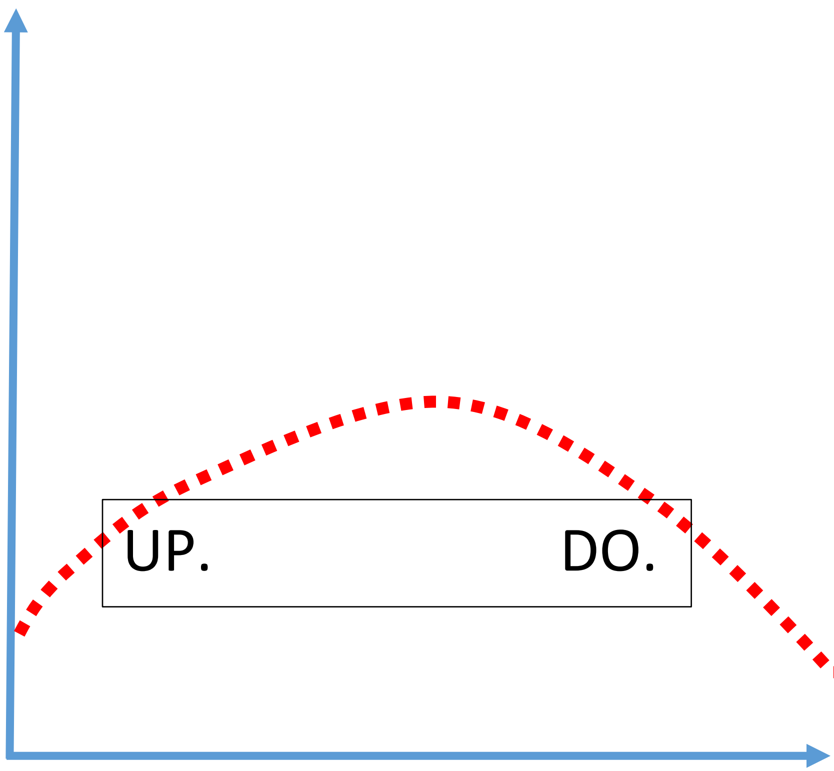
A suggested interpretation:

A non-linear, inverted U shape association between the local housing construction/local GDP and the future growth of the local economy and thereby the future implicit tax base.

Conjecture

Future GDP growth rate, or

Future real estate valuation



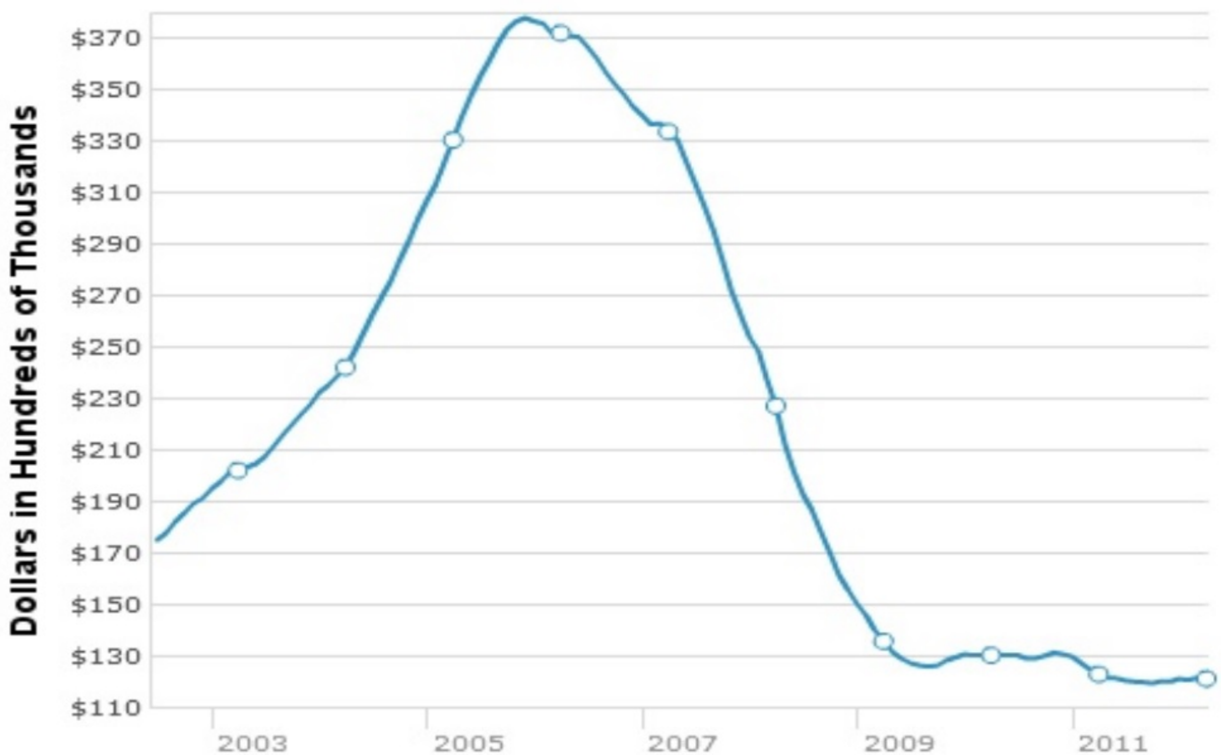
local real estate GDP/
local GDP

- The focus should be on the association of the **future** growth rate of the local economy and the **present** local ratio of real estate value-added to total local GDP.
- Without controlling for the crowding out of private investment and its future growth implications, ‘corruption’ charges may be highly correlated with too much crowding out of private investment, possibly due to local idiosyncratic shocks.
- **Is it corruption OR/& Incompetence OR/& bad luck OR/& party’s power struggle against its perceived enemies?**
- **Probably all the above.**

Controlling for intertemporal factors is a key challenge

Example: real estate valuation in Stockton, CA

Stockton Median Home Prices, 2003-12



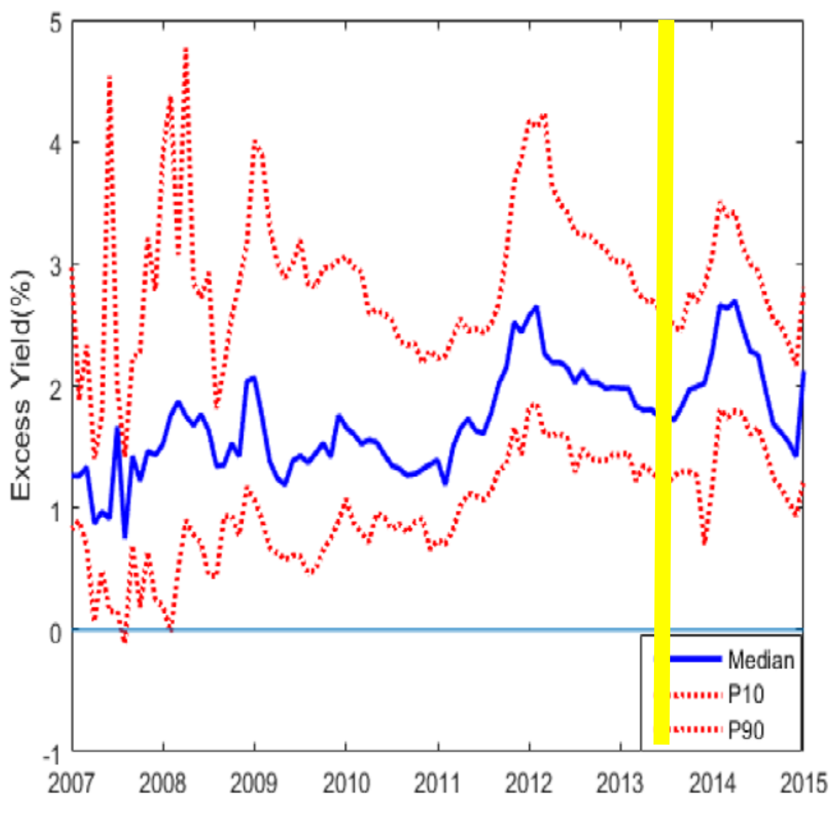
Distance SF – Stockton: about 60 miles, 100 km.

http://uscommonsense.org/research/how-stockton-went-bust-a-california-citys-decade-of-policies-and-the-financial-crisis-that-followed/

http://politics.stackexchange.com/questions/8690/why-has-the-perception-of-corruption-in-china-increased-suddenly

http://www.chinaeconomicreview.com/exclusive-monthly-data-detail-chinas-often-soft-handed-anti-corruption-campaign

Panel B: Excess Yields in the Secondary Market



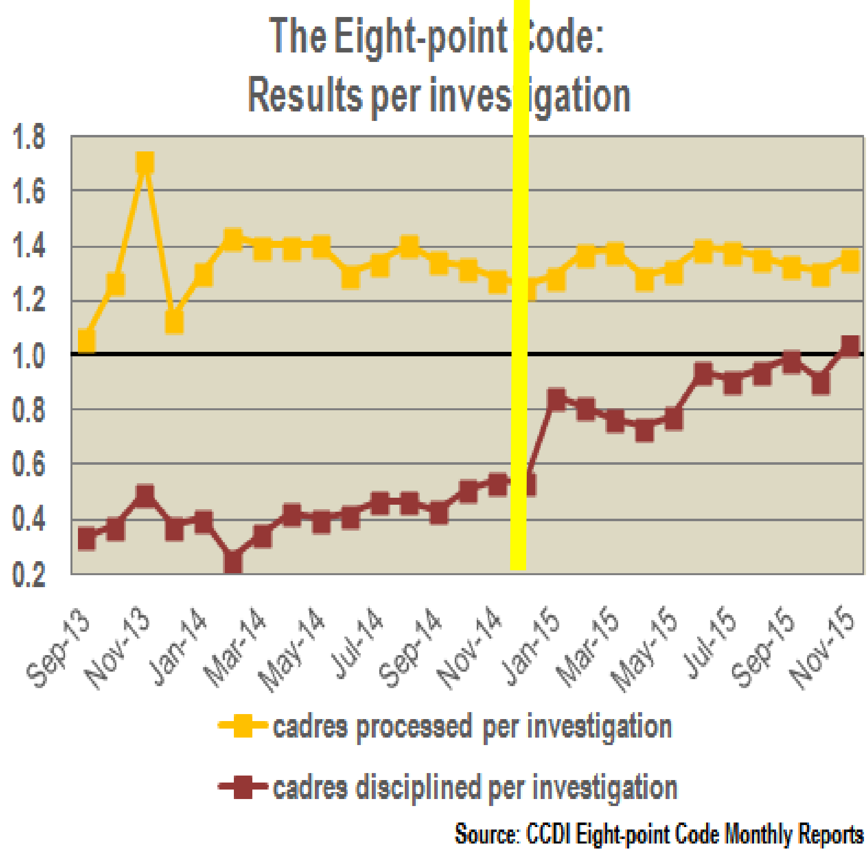
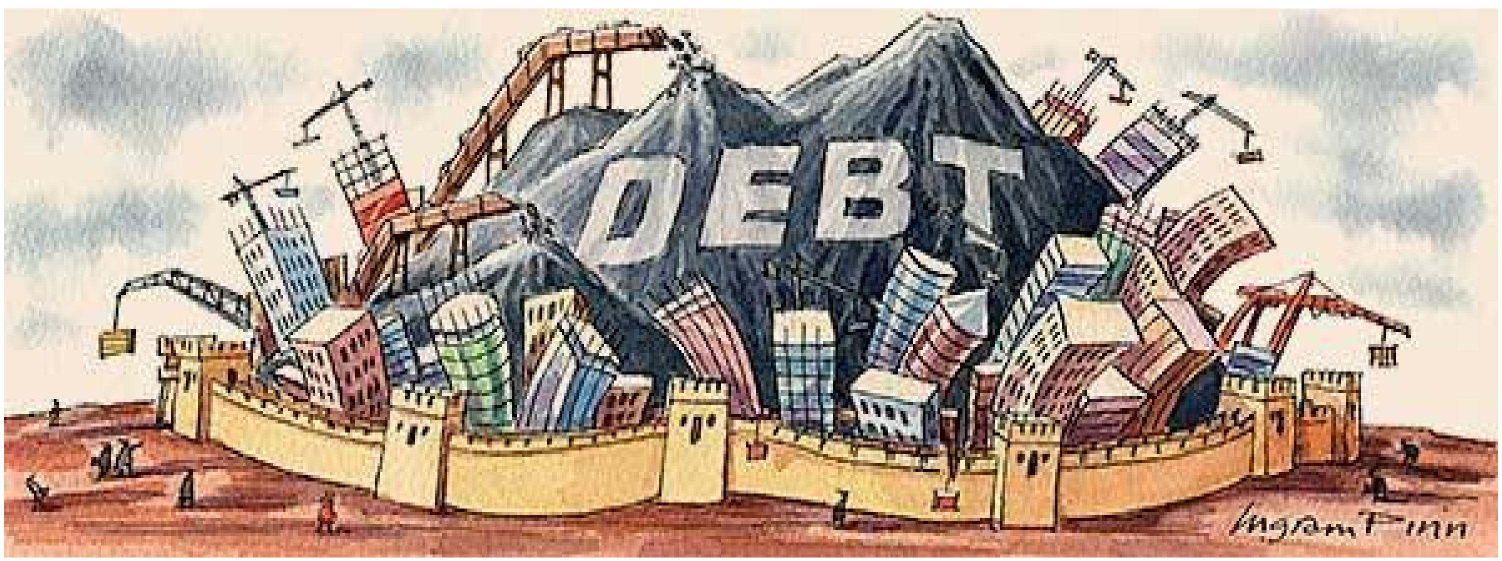


Figure 3: Dispersion of Chengtou Bond Yields

Suggestions:

- **Verify whether the corruption variables remain significant after controlling for the above missing factors.**
- Add to the regressions non-linear quadratic terms of Real Estate GDP/local GDP.
- Control for the investment of non-state and non FDI private producers.
- Control for the **impact** of lagged Real Estate GDP/local GDP on **present and future** local GDP growth.

THANKS
FOR YOUR ATTENTION



DEBT
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