

Discussion of:
“Real Estate Collateral and Labor Demand”
by Thomas Chaney, David Sraer, and David Thesmar

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Outline

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In a Nutshell

- An **indirect** test of the relevance of borrowing constraint for labour “demand.”

Key idea: if a Kiyotaki-Moore (1997) mechanism is at play, an increase in the value of collateralizable assets will relax borrowing constraints, hence generating higher investment and employment.

Strategy: regress (measures of) plant level employment growth on the level of Real Estate assets market value.

Finding: Real Estate Value is highly significant (but its effect on employment is much smaller than that on investment, and inconsistent with CES production function in the absence of additional frictions).

Reading: RE Value $\uparrow \Rightarrow$ borrowing capacity $\uparrow \Rightarrow$ investment $\uparrow \Rightarrow$ employment \uparrow

An Alternative Interpretation: Sticky Wages

- If wages are sticky, employment (from a firm perspective) is akin to debt (e.g. Danthine and Donaldson (ReStud2002), Favilukis and Lin (2013))

Intuition: with Calvo pricing, after a negative TFP shock, the wage bill to assets ratio typically increases \Rightarrow **Labour Leverage** \uparrow

Hence: the authors' finding might simply be:
RE value $\uparrow \Rightarrow$ Labour leverage $\downarrow \Rightarrow$ employment \uparrow to increase labour leverage.

Note: the authors find stronger effects for Large and Global firms (more likely to be unionised, and hence characterised by stickier wages).

Baseline: check for it! Use as controls:

- 1 Labour leverage
- 2 the interaction of RE Value and unionisation, wage stickiness, political orientation of the department

An Econometric Issue: Trending RE Value

Note: if we do linear projections of an autocorrelated variable on a trending (or autocorrelated) variable, measures of fit and t -stats will typically be biased upward.

- RE Value (in sample) seems to be clearly trending in both the aggregate and in the different departments (Fig. 1 and Fig. 2 in the paper)
- No autocorrelation measure of employment growth in the paper...

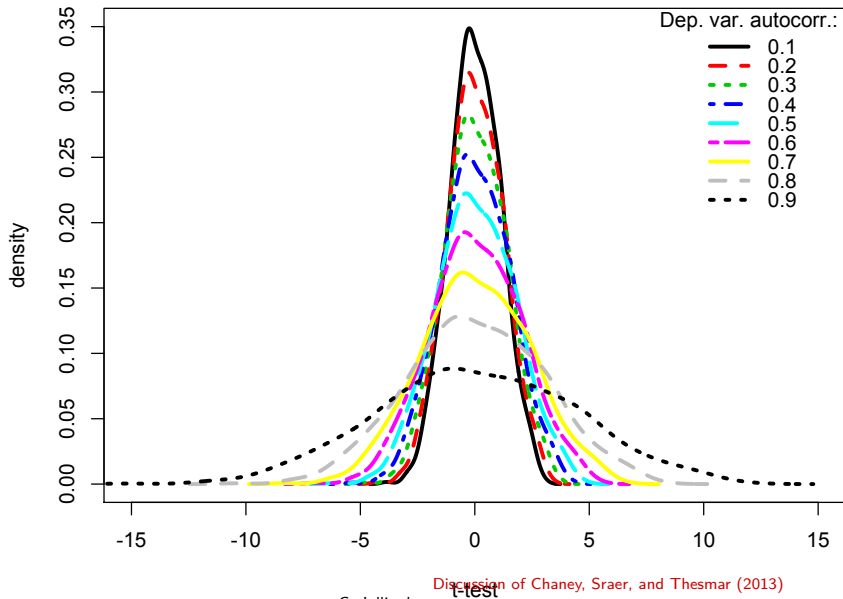
But the **autocorrelation of aggregate new job posting is .42!**
(unemployment changes have similar autocorrelation. Source: Insee).

... and t -stats are way too high in the paper...

A Simple Simulation

- To gauge whether trending RE Values generate a potential issue for the reported estimates, I construct fake datasets where:
 - ① the N and T dimensions are similar to the ones in the paper;
 - ② the dependent variables have the same unconditional mean and variance as the employment growth in the paper, but follows an AR(1) process with iid innovations.
 - ③ RE Values are trend stationary (with trends matching the ones reported in the figures) with iid innovations.
- In each generated sample we can then regress "employment" growth on "RE Value" and compute *t*-stats under the – true – null of the series being independent.

t -test distribution and autocorrelation



Discussion of Chaney, Sraer, and Thesmar (2013)

Statistical significance and autocorrelation



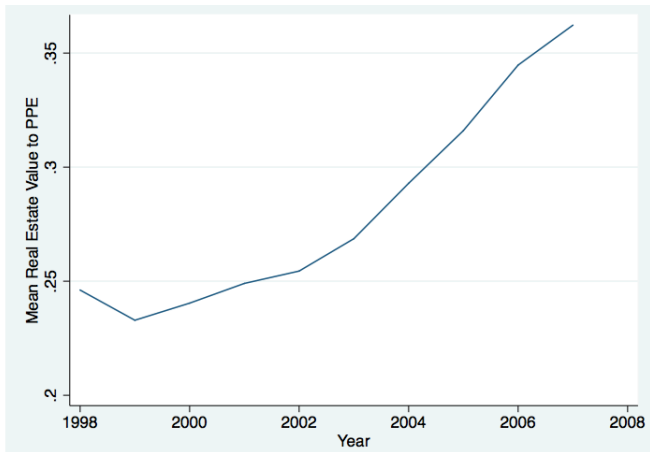
Baseline: if the dependent variables are serially correlated (my guess), this is a major issue that needs fixing.

- Simple checks can be very easily done:
 - ① add the lagged dependent variable on the RHS (reduces the sample, but there is spare capacity...);
 - ② use first differences of RE Value (ditto), or better, its innovations.
 - ③ perform placebo regressions with trend stationary RE Values (the ones in the paper make it iid, so they offer no guidance) – e.g. draw entire RE Values sequences from the empirical distribution – and use that to compute p -values for the estimated coefficients.

Overall

- (+) An interesting and very careful paper (very good data work, and tons of robustness checks already) that I enjoyed.
- (+) Raises good research questions for further work (the differential effect on investment and employment is intriguing).
- (-) Wage stickiness should be addressed as a simple alternative explanation.
- (-) Non-stationarity of RE Values is a major concern, but it can be easily addressed.

Average Real Estate Collateral Value to Capital Ratio



House Price Inflation

