The Sources of Capital Misallocation

by Joel David and Venky Venkateswaran

Discussion by Rüdiger Bachmann, University of Notre Dame, CEPR, CESifo, ifo

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- Firm-fixed factors (e.g., production function heterogeneities)

Model framework

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Parameters:

1. Adjustment costs
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Identified by:

1. Autocorrelation of investment
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3. Correlation between investment and productivity
4. Transitory distortion variance

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Results I

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For China:

- Adjustment costs irrelevant.
- Uncertainty 10%.
- Rest is 50/50: productivity-dependent and permanent fixed factors.

Results II

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For China, **consistent with**:

- Some role for production function heterogeneity.
- Size-dependent policies.
- Financial frictions.

Overall theme

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One that's contentious:

> *Matching the Moment, but Missing the Point? [...] Should we have greater confidence in DSGE models that match more moments and that achieve a closer match to certain moments of the data than other models? Are these likely to provide a more useful guide to reality? There is no scientific basis to answer this question affirmatively.*

Korinek (2017): "Thoughts on DSGE Macroeconomics: Matching the Moment, But Missing the Point?"

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In any event: too much correlation between investment and productivity.

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  - Really the entire investment rate histogram from Cooper and Haltiwanger (2006).
  - Procyclicality of extensive margin of investment and its cross-sectional dispersion, while investment conditional on adjustment is countercyclically disperse: need fixed costs – Bachmann and Bayer (2014). Also Gourio and Kashyap (2007).

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TABLE 1—CYCLICALITY OF CROSS-SECTIONAL MOMENTS

	Correlation with cycle		
Cross-sectional standard deviation of…		Fraction of…	
Investment rates	0.45**		
Output growth	−0.45*	Adjusters	0.73***
Employment growth	−0.50**	Spike adjusters	0.61***
Invest. rates conditional on spike adjustment	−0.55***		
Productivity growth	−0.47**		

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What are adjustment costs – physically – anyway? Other than a stand-in to generate certain investment moments?

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Size-dependence: larger for small firms.

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Bottom line: adjustment costs and uncertainty could be themselves behind the fixed or size-dependent factors.

Random Comment III: firms vs. plants

Has anyone looked at the difference between the across-firm and the within-firm-across-plant misallocation?

Could be informative of the nature of misallocation: finance versus technological.

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- Already useful for policy?

Comment V: which moments to match?

Two additional examples from the paper:

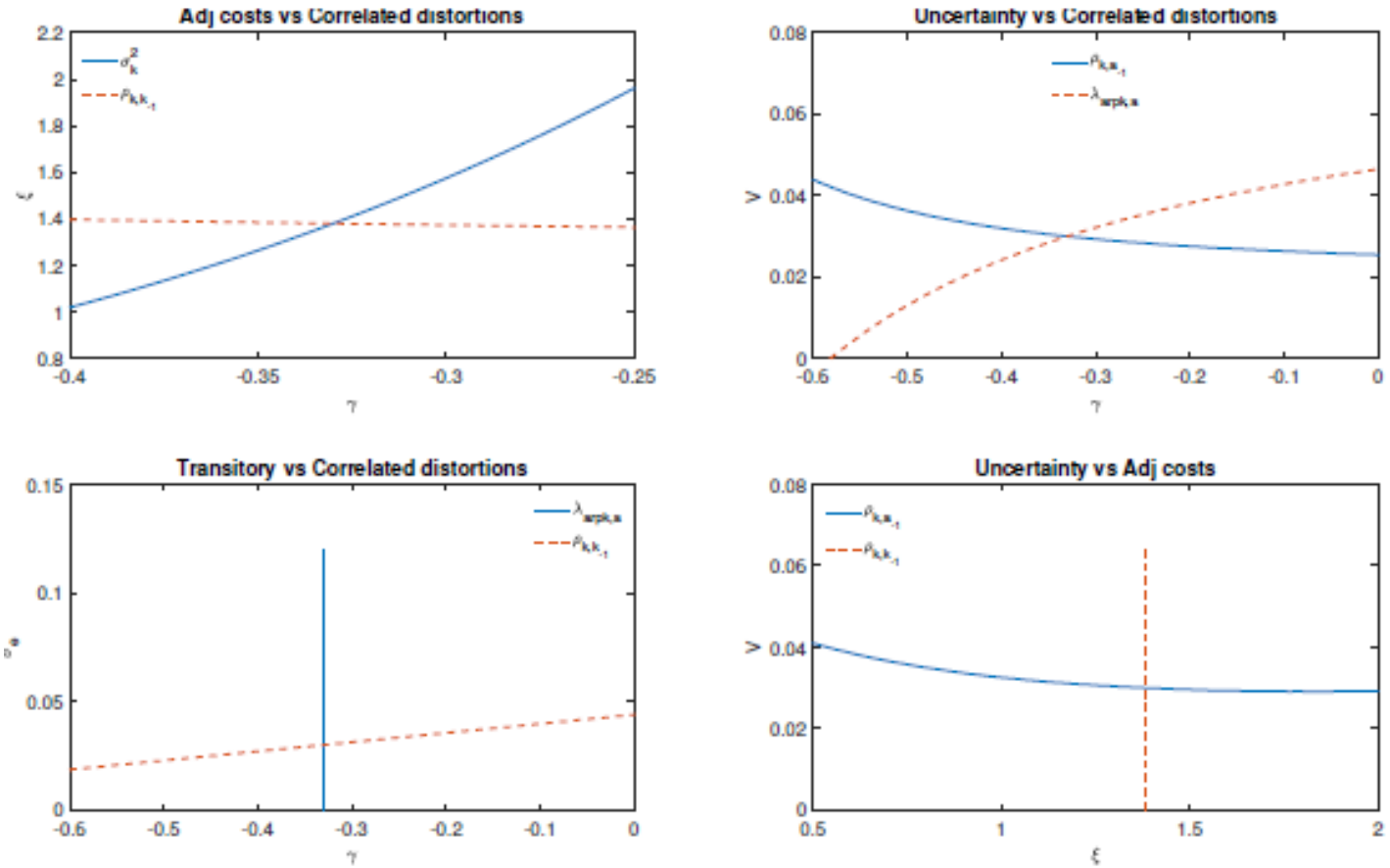

Figure 1: Pairwise Identification - Isomoment Curves

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Difference in the isomoment curves: $\rho = 1$ vs. $\rho = 0.9$.

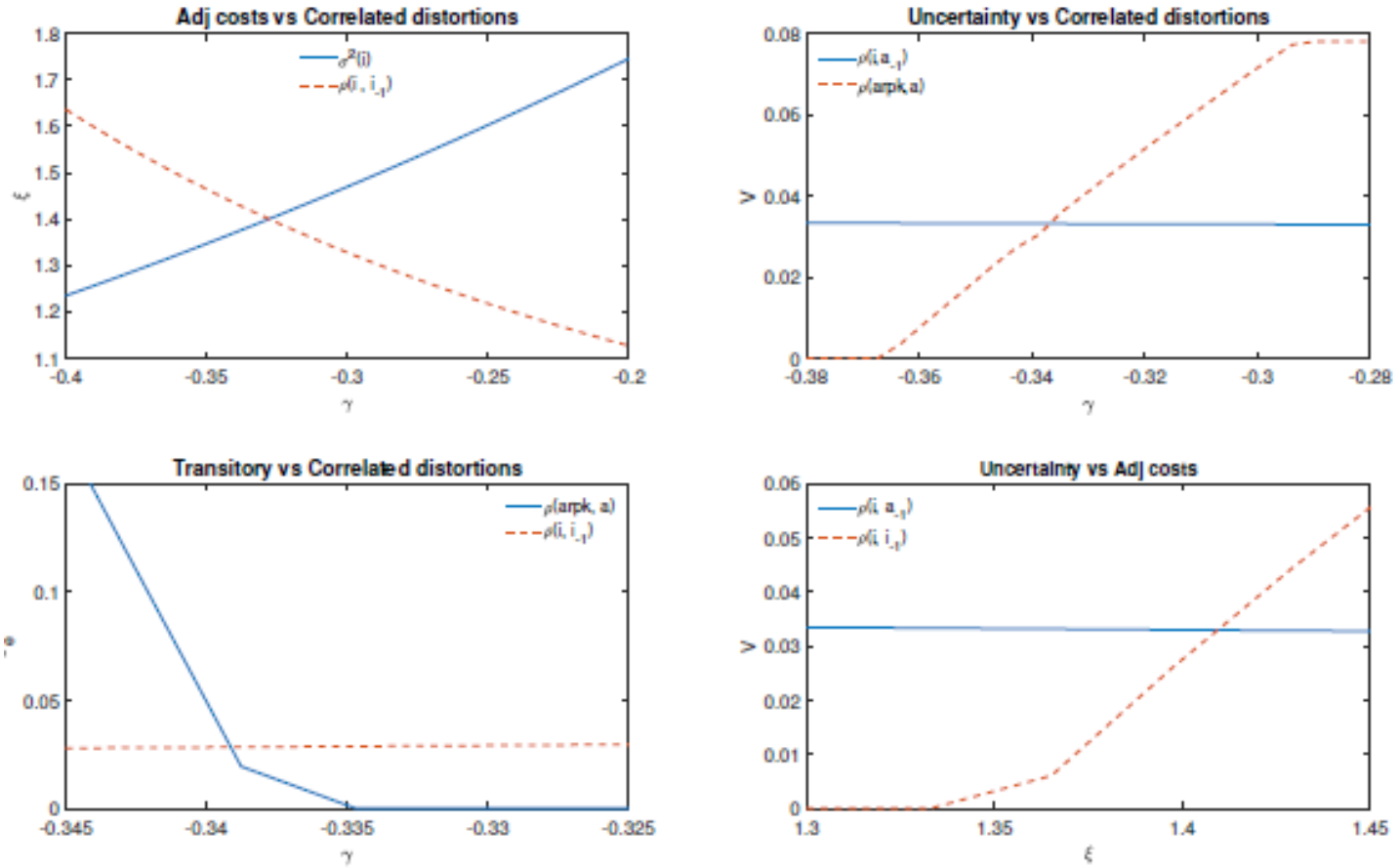

Figure 2: Isomoment Curves - Quantitative Model

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Curvature of capital in the reduced-form revenue function: fixed here at 0.62 – lots of investment moments are highly sensitive to this parameter, and the literature has no consensus on its value.

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- The Christiano-solution: build super-complex models with lots of frictions and shocks and estimate via full information ML.

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I think the paper is a bit short on the latter (while very strong on the identification part).

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I would, however, caution against the idea that showing identification inside the model is already a good argument about what is going on in the real world.