

Discussion of
**Trade Integration and
the Trade Balance in China**

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Introduction

- China is intriguing:
 - ① Extremely fast sustained productivity growth
 - ② Even faster increase in international trade
 - surprisingly large role of the extensive margin
 - ③ Very high savings rate and large trade and CA surpluses
 - ④ Active capital controls policy and “financial repression”
- Questions:
 - Why savings and CA surplus given the growth rate?
 - Export-led growth? Would growth be different without trade surplus?
 - The role of misallocation/relocation and financial frictions?
 - Is home goods market underdeveloped?
 - Is China's exchange rate undervalued?
 - Is China growing due to policies or despite policies?
 - China and world savings glut

This paper

- Two-country DSGE model with:
 - incomplete markets
 - pricing-to-market
 - heterogeneous producers and trade participation decision
 - persistent shocks to trade barriers, technology and tastes
- Multiple sources of shocks, somewhat akin to CKM wedges
 - in particular, rich on trade shocks
- Bayesian estimation
 - yields simultaneously parameter estimates and shock realizations
- Model solution: linearization around the steady state

What this approach can accomplish?

- Model-based decomposition of the within-sample outcomes into the contribution of shocks/wedges
- Two main insights from this exercise:
 - ① Reduction in trade costs was important for the size of the current account surpluses
 - ② Slow down in trade growth is due to the end of transition, not a new negative shock

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 - ② Slow down in trade growth is due to the end of transition, not a new negative shock
- What should not be done with this approach?
 - ① Counterfactuals: requires structural interpretation of wedges
 - ② Out of sample predictions: due to possible misspecification of the model

Shocks

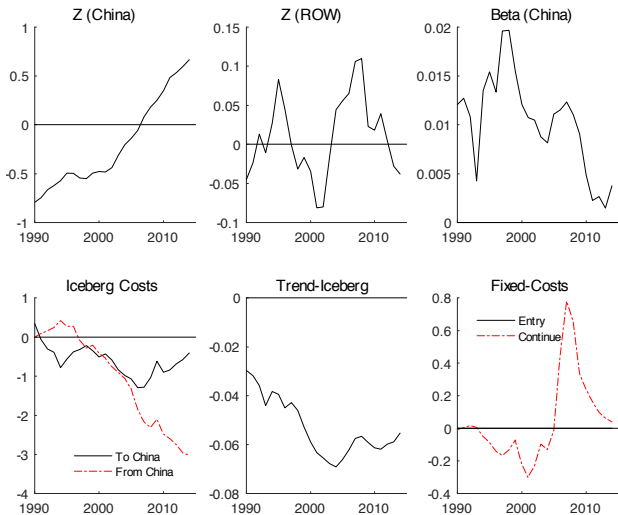
- Discount factor shock:

$$\log \beta_t = (1 - \rho_\beta) \bar{\beta} + \rho_\beta \log \beta_{t-1} + \varepsilon_\beta$$

- Productivity Z : mixture of two AR(1) processes
- 5 trade cost shocks:
 - sunk and fixed costs of exporting (f_0 and f_1)
 - 3 iceberg trade cost shocks (ξ): import and export transitory shocks plus a common growth rate shock

Shocks

Figure 6: Deviations from Steady State of Exogenous State Variables



Shocks

- The data does not look stationary
- Chinese productivity does not look mean reverting
- Iceberg trade costs do not look mean reverting
- Log-linear approximation of a model around a steady state?
- Predictions out of sample?
- In the model, agents behave as if all shocks are mean reverting
- How much does misspecification matter for within-sample decompositions?

Questions

- Does understanding the macro trends require a detailed trade model?
 - as opposed to a simple macro model with intensive margin of trade only
- Does the broad macro data require pricing to market?

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- Productivity evolution:

$$\begin{cases} \dot{A}_N &= \kappa \cdot \pi_N^\nu, \\ \dot{A}_T &= \kappa \cdot (1 - \pi_N)^\nu, \end{cases} \quad \text{where } \pi_N \left(\begin{array}{c} \frac{C}{C^*}, \frac{W}{A_N}, \frac{A_T}{A_N} \\ + \quad \quad + \end{array} \right)$$

and CA deficits induce a non-tradable productivity tilt, while CA surpluses leave the domestic market underdeveloped