Discussion:

Trade Integration and the Trade Balance in China

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Overview

What has driven Chinese trade dynamics since 1990?

- One of the biggest open questions in international economics
- Allocation puzzle (Gourinchas and Jeanne, 2009)

This paper: quantitative framework to evaluate contributions of several potential drivers simultaneously

- Productivity
- Preferences
- Trade costs

Main result: Asymmetric evolution of Chinese import + export costs plays important role in trade imbalances

Comments

Ambitious quantitative exercise

- Rich trade dynamics: heterogeneous firms + fixed export costs, pricing to market $\Rightarrow$ J-curve
- Bayesian estimation of shock processes

External evidence on asymmetric trade cost dynamics?

Doesn't give productivity shocks enough of a chance

- Productivity process removes permanent-income motive
- Linearization $\Rightarrow$ no precautionary saving motive

Adding capital accumulation may improve identification

Implications for real interest rates?

Asymmetric trade cost dynamics and trade imbalances

Mechanism: save when exporting relatively cheap, borrow/get paid back when importing relatively cheap

Barattieri (2014): faster **observed** trade liberalization in goods compared to services explains U.S. trade deficits

- U.S. specializes in importing goods, exporting services
- Goods trade costs fall before services trade costs $\Rightarrow$ borrow when import costs are low, repay when export costs are low

This paper: trade costs are wedges implied by model

External evidence on Chinese import + export cost dynamics?

Permanent-income motive and China's long-run growth

China grew faster than rest of the world during sample period, suggests strong permanent-income motive to borrow early on

- Allocation puzzle: huge saving wedges (i.e. preference shocks) needed to explain Chinese surpluses

This paper's AR1 model of China's relative productivity removes permanent-income motive almost entirely

- Fast growth $\Rightarrow$ high persistence
- Persistence $\Rightarrow$ current income $\approx$ permanent income
- Positive shock to China's relative TFP causes slight increase in trade balance, because TFP mean-reverts downward (see fig. 7c)
- No role for anticipation of higher future income

Possible solutions: Shocks to TFP growth rate; deterministic model (Kehoe et al., 2016; Eaton et al., 2015)

Precautionary saving and high Chinese volatility

Esitmation finds that domestic component of Chinese TFP twice as volatile as global component

High relative volatility should create precautionary saving motive for China to save

Literature suggests this as possible resolution to allocation puzzle

- Faster-growing countries tend to be more volatile
- Coeurdacier et al. (2013): permanent income + precautionary saving

Linearization $\Rightarrow$ no precautionary saving

Possible solution: time-varying volatility + 3rd-order approximation (Perri and Fogli, 2015)

Investment and preference shock identification

Adding capital accumulation may help identify which preference shocks drive trade imbalances

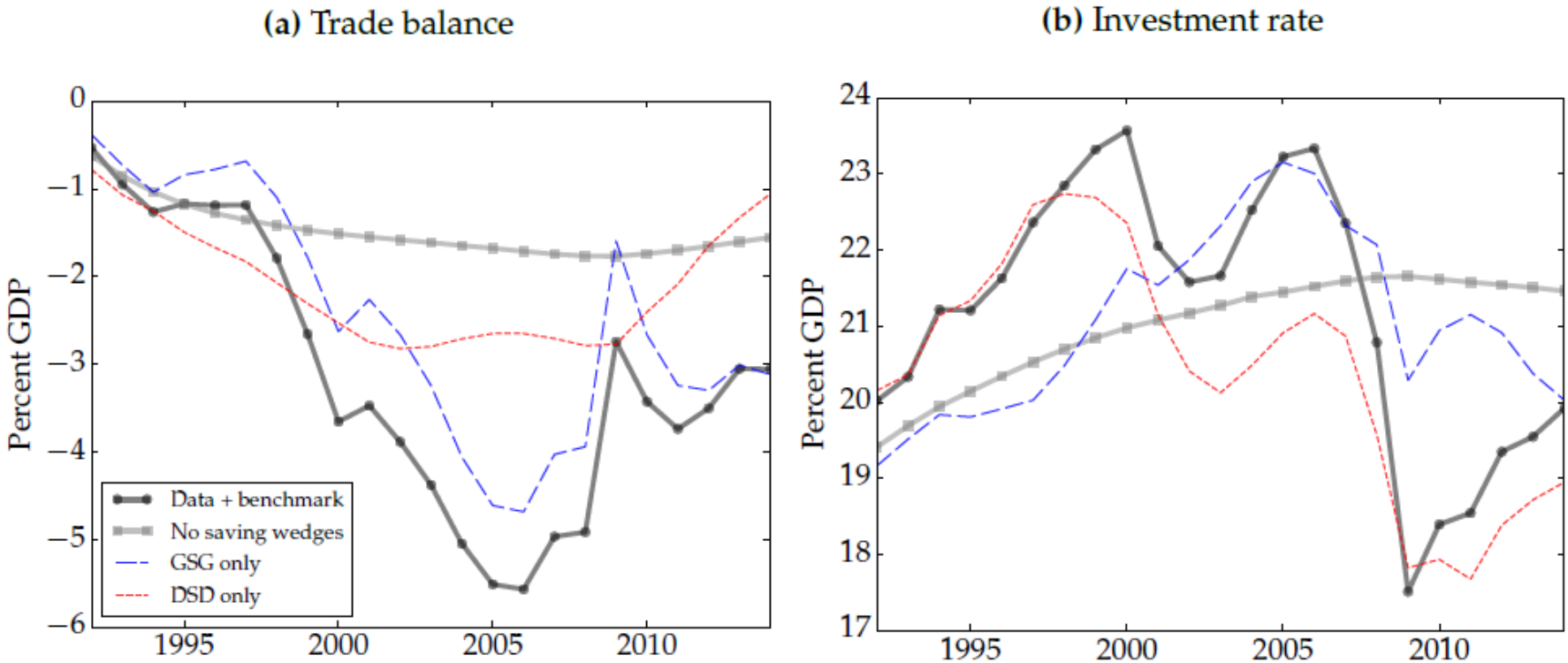
Increase in Chinese trade surplus can be generated by (i) decrease in Chinese discount rate, or (ii) increase in ROW's

(i) Chinese households value future consumption more, so Chinese investment should rise; opposite effect for ROW

(ii) Vice versa

Kehoe et al. (2016): U.S. investsment dynamics support "global saving glut" hypothesis, not "domestic saving drought"

Attributing U.S. trade balance and investment dynamics to preference shocks



Intra- and intertemporal prices

Model does a good job accounting for real exchange rate dynamics

Widely-believed that global trade imbalances responsible for low real interest rates since 1990

Kehoe et al. (2016): difficult to match real exchange rate and interest rate dynamics simultaneously

How does this model do in matching real interest rates?

Model's ability to generate J-curve suggests it may do well. . .

J-curves and relative prices

Euler equation in endowment model:

$$1 = \mathbb{E}_t \left[\beta \underbrace{R_{t+1}}_{\downarrow} \underbrace{\frac{RER_{t+1}}{RER_t}}_{\uparrow} \frac{U'(Y_t - TB_{t+1})}{U'(Y_t - TB_t)} \right]$$

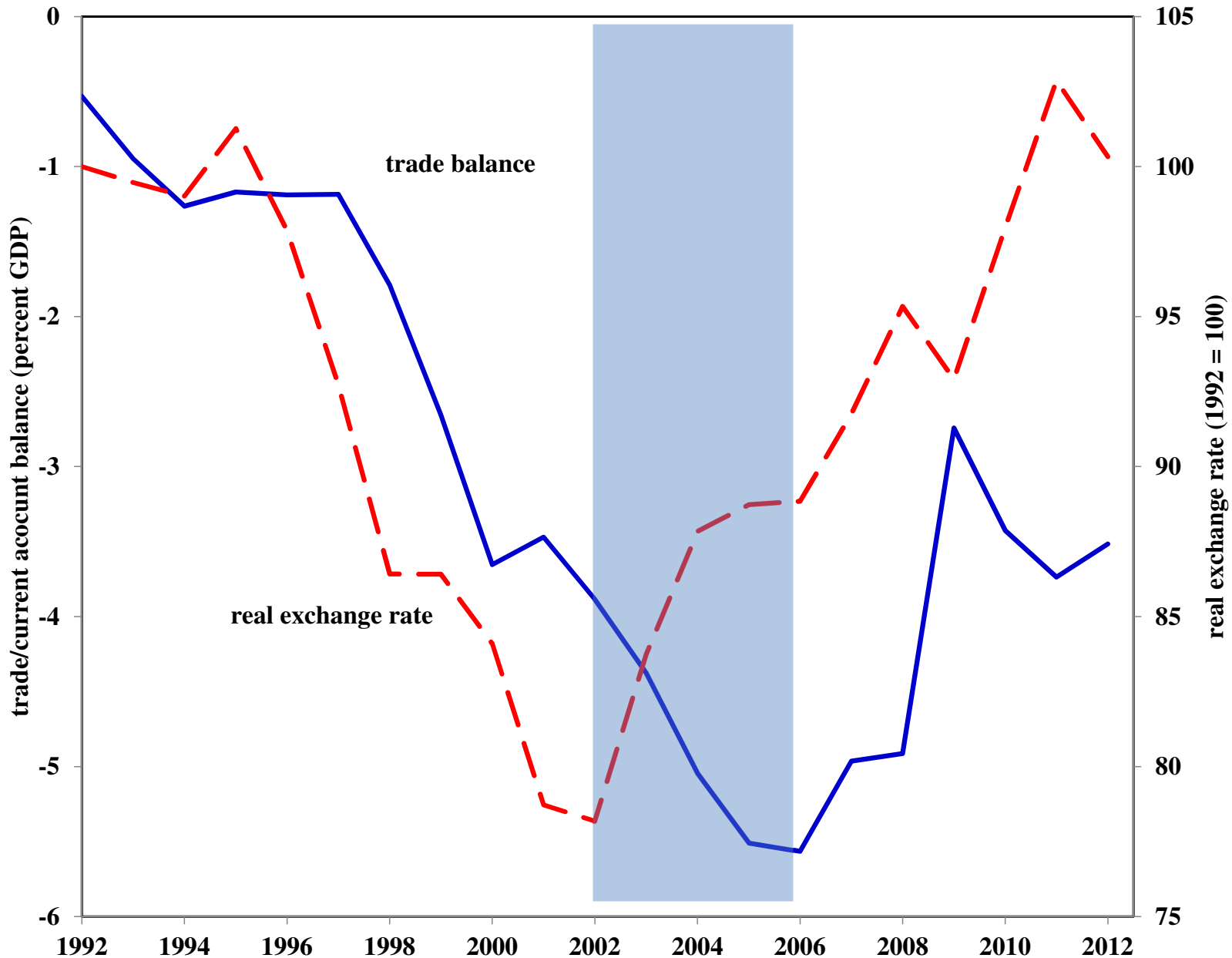
Suppose $TB_{t+1} < TB_t$

Marshall-Lerner: $RER_{t+1} < RER_t$

J-curve: $RER_{t+1} > RER_t$

For given trade balance dynamics, R_{t+1} must be lower in model with J-curve than in model with no deviations from Marshall-Lerner

U.S. J-curve and interest rates



U.S. J-curve and interest rates