

Discussion:
**Global Value Chains, International Risk Sharing and the
Transmission of Productivity Shocks**

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Consumption risk is not optimally edged across countries

Backus-Smith puzzle: $\text{corr}(C - C^*, \frac{P^*}{P}) \leq 0$

- ▶ Domestic HH consume less when their consumption basket is cheaper
- ▶ which contradicts prediction of models with complete markets
- ▶ Incomplete markets necessary but not sufficient conditions to solve modelling failure (Corsetti, Dedola & Leduc, 2008; Baxter & Crucini, 1995; Cole & Obstfeld, 1991)
- ▶ Role of trade elasticity and shock persistence (Corsetti, Dedola & Leduc, 2008)

GVC: productivity vs. volatility

- ▶ GVC integration \Rightarrow Specialisation in production \Rightarrow Increased exposure to sectoral shocks (Newbery and Stiglitz, 1984)
- ▶ GVC integration \Rightarrow Diversification in supply and demand \Rightarrow Reduced exposure to domestic shocks (Caselli et al. 2020)

This paper

Research question:

- ▶ How do GVCs influence degree of international risk sharing?

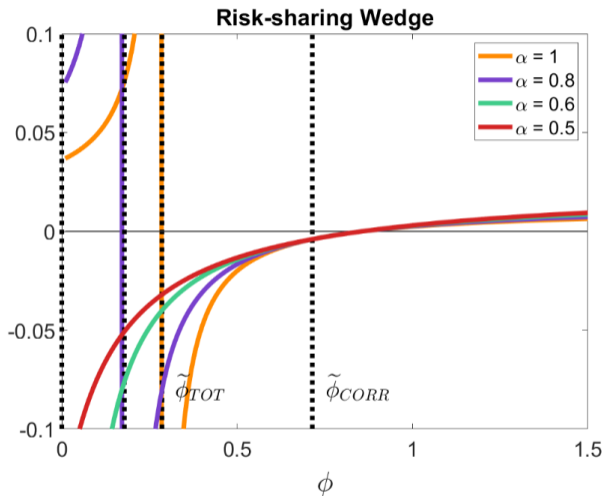
2-country, 2-good NOEM model:

- ▶ Households consume domestic and foreign goods \Rightarrow Trade
- ▶ Domestic production uses domestic and foreign intermediate goods \Rightarrow GVCs
- ▶ Country-specific productivity shocks \Rightarrow Incentives to save/borrow
- ▶ Trade in intermediate goods \Rightarrow Marginal productivity effect

Empirical part:

- ▶ Higher GVC integration leads to smaller deviations from perfect risk sharing

With high complementarity, GVC integration reduces wealth gap



Note: Positive shock to A_t with persistence 0.8, with $b_H = a_H = 0.7$, $\sigma = 2$ and $\beta = 0.99$.

Mechanisms of transmission

Positive productivity shock in Home (H):

Substitution effect:

- ▶ $x_H \uparrow$ and $p_H \downarrow \implies$ H and F consume more

Wealth effect:

- ▶ $p_H \downarrow \implies$ domestic income decreases

Marginal productivity effect:

- ▶ $p_H \downarrow \implies$ abundance of factors abroad \implies higher production in F $\implies p_F \downarrow \implies$ smaller ToT depreciation & smaller negative wealth effect

Comments

Are results dependent on the modelling of GVCs?

Roundabout production:

$$x_{H,t} = A_t L^\alpha X_t^{1-\alpha}$$

where

$$X_t \equiv \left(b_H^{1-\rho} x_{H,t}^\rho + b_F^{1-\rho} x_{F,t}^\rho \right)^{1/\rho}$$

Considerations:

- ▶ Multi-stage production approach
- ▶ Production technology is common for final and intermediate goods
- ▶ Price of input = price of intermediate good
- ▶ Extension to J countries and/or S sectors
- ▶ Inclusion of non-tradable sector

Other comments

- ▶ Do GVC still reduce misalignments if a shock hits some sectors in all countries?
 - ⇒ E.g. global chip shortage
- ▶ What happens if home bias in consumption and in production differ?
 - ⇒ Is there evidence for a home bias in intermediate goods?
- ▶ What happens if $\alpha_H < 0.5$ (low home bias)?
 - ⇒ It should change the response of the wedge in non-trivial ways
- ▶ What's the importance of shocks' persistence?
 - ⇒ Lack of financial markets integration might not be important if shocks are low persistence (Baxter & Crucini, 1995)
- ▶ What happens if we allow for international trade in bonds?
 - ⇒ Are GVC still (quantitatively) important?

Conclusions

- ▶ **I like the paper! I learned a lot!**
- ▶ Makes an important point on the desirability of GVC integration
- ▶ But irrelevance result for the case of high substitutability also important
- ▶ More attention to consequences of synchronised shocks to GVCs
- ▶ Clarify the importance of some modelling choices