Discussion of "Structural Adjustments and International Trade: Theory and Evidence from China" by Hanwei Huang, Jiandong Ju and Vivian Yue

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Motivating Facts

- This paper is motivated by two observed changes in China's manufacturing industries between 1999 and 2007:
  - Production became more capital intensive
  - Exports became more labour intensive

Theoretical Model

- The paper
  - uses a very nice model to account for these two changes
  - introduces firm heterogeneity into the model of Romalis (2004)
  - extends Bernard, Redding and Schott (2007) to a continuum of industries
  - generates analytical results on the impact of trade liberalization, capital deepening and technological change
- The model is structurally estimated and used to account for the observed changes in production and export patterns

Main Results

- Capital intensity of production increased due to capital deepening
  - larger cost reduction in capital intensive industries
  - relative increase in real demand for goods produced with capital intensive technologies
    - but no effect on value-added shares
- Exports became more labour intensive because of comparative advantage and trade liberalization
  - comparative advantage strengthened due to reduction in trade costs
  - it is further strengthened by relative faster TFP growth in labour intensive industries

Comments: Facts

- Capital intensity: the paper groups firms into industries by capital income shares and focus on reallocation across them
    - Berkowitz, Ma and Nishioka (2015) shows that most increases in capital income shares were within firms
        - Reallocation across across products within firms (Ma, Tang and Zhang, 2014)
        - CES production technology and reduction in capital costs
- Export intensity of labour intensive industries
    - Could this be driven by processing trade?

Comments: Model

- Cobb-Douglas preferences eliminates other sources of structural change identified in the literature
  - Relative productivity growth across industries (Ngai and Pissarides, 2007)
  - Capital deepening and differential capital intensity (Acemoglu and Gurrieri)
- Cobb-Douglas also implies constant value-added shares

Comments: Quantitative analysis

- More could be done in the quantitative analysis
  - Estimating firm TFP that is consistent with the model specification
  - Allowing differential trade cost reductions across industries–can be estimated directly from trade data
  - Directly measuring K/L rather than estimating it from the model

Conclusion

- Very nice paper and important question
- Would like to see
    - better documentation of facts
    - more general model that allow for standard forces of structural change
    - more complete quantitative analysis.
- Looking forward to seeing the final version of the paper