Trade Policy is Real News: A Quantitative Analysis of Current and Future Changes in U.S. Trade Barriers

George Alessandria and Carter Mix

Discussion by Ricardo Reyes-Heroles

Federal Reserve Board

NBER IFM Fall Meeting

October 26, 2018

The views expressed in this presentation are those of the authors and do not necessarily reflect the position of the Federal Reserve Board or the Federal Reserve System.

Overview (1)

• What? Evaluate and quantify the aggregate dynamic impact of changes in current and future trade barriers on the U.S. and global economy.

Overview (1)

- What? Evaluate and quantify the aggregate dynamic impact of changes in current and future trade barriers on the U.S. and global economy.
- Why?
 - 1. Large but gradual changes in trade integration \rightarrow expected component (e.g. phase-in periods in trade agreements, trade wars)
 - 2. Trade and growth slowdown \rightarrow incorporate (i) current & future trade barriers, (ii) transition from past integration and (iii) economic growth

Overview (1)

• What? Evaluate and quantify the aggregate dynamic impact of changes in current and future trade barriers on the U.S. and global economy.

• Why?

- 1. Large but gradual changes in trade integration \rightarrow expected component (e.g. phase-in periods in trade agreements, trade wars)
- 2. Trade and growth slowdown \rightarrow incorporate (i) current & future trade barriers, (ii) transition from past integration and (iii) economic growth
- How? Propose a two-country quantitative DSGE with gradual response of trade to persistent and trend shocks to
 - Trade costs, productivity, investment efficiency and labor wedge

 \rightarrow Estimate model to explore effects of shocks and changes in expectations of trade policy



| | 2-country/sector - Stochastic | Multi-country/sector PF |
|------------------|---------------------------------|------------------------------|
| No Firm Dynamics | BKK (1992) | EKNR (2015, 2016) |
| | Barattieri (2014) | Reyes-Heroles (2016, 2018) |
| | Erceg et al. (2018) | \implies trade costs paths |
| Firm Dynamics | Alessandria & Choi (2014, 2018) | |
| | Barattieri et al. (2018) | + stochastic |
| | Alessandria & Mix (2018) | |



| | 2-country/sector - Stochastic | Multi-country/sector PF |
|------------------|---------------------------------|------------------------------|
| | BKK (1992) | EKNR (2015, 2016) |
| No Firm Dynamics | Barattieri (2014) | Reyes-Heroles (2016, 2018) |
| | Erceg et al. (2018) | \implies trade costs paths |
| Firm Dynamics | Alessandria & Choi (2014, 2018) | |
| | Barattieri et al. (2018) | + stochastic |
| | Alessandria & Mix (2018) | |

- How is this different? \rightarrow All main findings are new! Want to emphasize...
 - Future anticipated declines (increases) in TCs are contractionary (expansionary) → Wealth and substitution effects



| | 2-country/sector - Stochastic | Multi-country/sector PF |
|------------------|---------------------------------|------------------------------|
| | BKK (1992) | EKNR (2015, 2016) |
| No Firm Dynamics | Barattieri (2014) | Reyes-Heroles (2016, 2018) |
| | Erceg et al. (2018) | \implies trade costs paths |
| Firm Dynamics | Alessandria & Choi (2014, 2018) | |
| | Barattieri et al. (2018) | + stochastic |
| | Alessandria & Mix (2018) | |

- How is this different? \rightarrow All main findings are new! Want to emphasize...
 - Future anticipated declines (increases) in TCs are contractionary (expansionary) → Wealth and substitution effects
 - 2. Canceling (delaying) a trade reform is expansionary \rightarrow *Effects of trade war threats*



| | 2-country/sector - Stochastic | Multi-country/sector PF |
|------------------|---------------------------------|------------------------------|
| No Firm Dynamics | BKK (1992) | EKNR (2015, 2016) |
| | Barattieri (2014) | Reyes-Heroles (2016, 2018) |
| | Erceg et al. (2018) | \implies trade costs paths |
| Firm Dynamics | Alessandria & Choi (2014, 2018) | |
| | Barattieri et al. (2018) | + stochastic |
| | Alessandria & Mix (2018) | |

- How is this different? \rightarrow All main findings are new! Want to emphasize...
 - 1. Future anticipated declines (increases) in TCs are contractionary (expansionary) \rightarrow *Wealth and substitution effects*
 - 2. Canceling (delaying) a trade reform is expansionary \rightarrow *Effects of trade war threats*
 - 3. Actual path of TCs quite different than expectations and expectations of lower trade costs have not been met \rightarrow *Counterfactual effects*

Mechanisms

Gradual efects of trade costs on trade

1. Firms: Current and future trade costs affect exporting decisions by firms



2. Inputs: Import adjustment costs and composition of demand

$$Imports_t = \pi_{f,t}^C C_t + \pi_{f,t}^I P_{I,t} I_t$$

where

$$\pi_{f,t}^{C} = \omega^{C} \left(\xi_{t} W_{t} / \tilde{A}_{t} \right)^{1-\sigma} g_{C,t-1} < \omega^{I} \left(\xi_{t} \frac{W_{t} / \tilde{A}_{t}}{P_{I,t}} \right)^{1-\sigma} g_{I,t-1} = \pi_{f,t}^{I}$$

Comment 1/3

Compare estimated trade costs to "naive" estimates

- Estimates of current and future trade costs → Very cool!... "trade costs move differently than those from CES models" (traditional gravity)
 - Trade flows now depend on current and future trade costs
- Why not compare to estimates from extensive "gravity" literature?

Comment 1/3

Compare estimated trade costs to "naive" estimates

- Estimates of current and future trade costs → Very cool!... "trade costs move differently than those from CES models" (traditional gravity)
 - Trade flows now depend on current and future trade costs
- Why not compare to estimates from extensive "gravity" literature?



Comment 2/3

Expected vs observed trade costs counterfactuals

• Actual paths of trade barriers can be quite different than expectations



Figure 12: Common trade cost faced by exporters. Blue lines show agents predictions for future trade costs at different horizons.

• Counterfactuals linking to canceling/delaying trade reforms

Discussion of Alessandria & Mix (2018)

Comment 3/3

Drawbacks of 2-country (symmetric) framework

- 2-country model \rightarrow How to construct ROW?
 - Symmetry assumptions → rich heterogeneity is lost
 ⇒ How important is this issue for the paper's specific question? (asymmetric liberalizations)



Conclusion

- Great paper! \rightarrow New research agenda...
 - Understand the dynamics of trade barriers
 - \blacktriangleright Expansionary/Contractionary effects of part and future trade reforms \rightarrow Identification
- Tons of new and interesting results
- Challenge: Focus on the right ones