

On the Distributional Effects of International Tariffs

Daniel Carroll and Sewon Hur

Federal Reserve Bank of Cleveland

Discussion by Ricardo Reyes-Heroles

Federal Reserve Board

ITDW

June 12, 2020

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

- **What?** Study heterogeneous effects (welfare) of tariffs on households
 - across labor skill, income, and wealth
 - under alternative redistributive policies for tariff revenues.

Overview

- **What?** Study heterogeneous effects (welfare) of tariffs on households
 - across **labor skill**, **income**, and **wealth**
 - under alternative redistributive policies for tariff revenues.
- **Why?** Recent surge in protectionist policies \implies we need a good understanding of distributional consequences
 - Qualitatively \rightarrow more margins of heterogeneity
 - Quantitatively \rightarrow relevance

Overview

- **What?** Study heterogeneous effects (welfare) of tariffs on households
 - across labor skill, income, and wealth
 - under alternative redistributive policies for tariff revenues.
 - **Why?** Recent surge in protectionist policies \implies we need a good understanding of distributional consequences
 - Qualitatively \rightarrow more margins of heterogeneity
 - Quantitatively \rightarrow relevance
 - **How?** Dynamic Two-country Ricardian (DFS) trade model
 - Different labor skill types (high and low)
 - Non-homothetic preferences (poor \rightarrow higher expenditure on tradables)
 - HHs face uninsurable risk and borrowing constraints (can save)
- \rightarrow Consider a 5% increase in tariffs and analyze welfare effects under
- Wasteful G, lump-sum transfers, labor income and capital income taxes

Overview

- **What?** Study heterogeneous effects (welfare) of tariffs on households
 - across **labor skill**, **income**, and **wealth**
 - under alternative redistributive policies for tariff revenues.
 - **Why?** Recent surge in protectionist policies \implies we need a good understanding of distributional consequences
 - Qualitatively \rightarrow more margins of heterogeneity
 - Quantitatively \rightarrow relevance
 - **How?** Dynamic Two-country Ricardian (DFS) trade model
 - **Different labor skill types** (high and low)
 - **Non-homothetic preferences** (poor \rightarrow higher expenditure on tradables)
 - HHs face **uninsurable risk and borrowing constraints** (can save)
- \rightarrow Consider a 5% increase in tariffs and analyze welfare effects under
- Wasteful G, lump-sum transfers, labor income and capital income taxes
- Many int./cool results!** poor-educated screwed, effect of capital tax,...

What has been done and contribution

- In simple version of model (no labor supply) and being 'handwavy' about uncertainty, steady state indirect period utility conditional on skill, productivity and k is

$$V(j, \epsilon, k) = \underbrace{(w_j \epsilon)}_{\text{skill}} + \underbrace{\left(\frac{r}{P_X} - \delta\right) P_X k}_{\text{wealth}} \times \underbrace{\left(\frac{1}{P_T} (1 - s_N)^\gamma \left(\frac{P_T}{P_N} s_N\right)^{1-\gamma}\right)}_{\text{income}},$$

where s_N is the share of consumption expenditure on nontradables.

- Skill: Burstein and Vogel (2017), Parro (2013),...
- Income: Fajgelbaum and Khandelwal (2016), Hottman and Monarch (2018),...
- Wealth: This paper, Lyon and Waugh (2018,2019), Carroll and Hur (2019), Ferriere, Navarro and Reyes-Heroles (2020)

Comment 1/2: No direct effects of trade on skill premium

→ Entire effect on skill premium through capital-skill complementarity

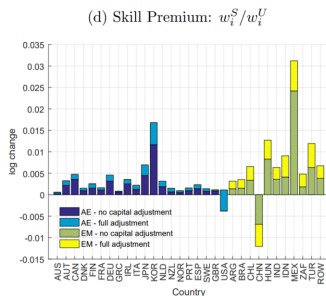
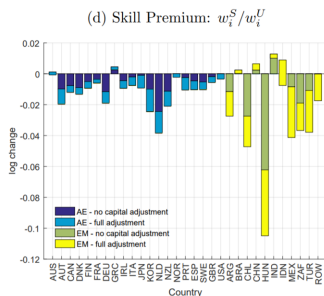
- No Stolper-Samuleson effects traditionally studied in the literature → no effects on impact (abstracting from labor supply)
- Important in order to think of a decomposition
- Even more relevant given the importance of wage effects

Comment 1/2: No direct effects of trade on skill premium

→ Entire effect on skill premium through capital-skill complementarity

- No Stolper-Samuelson effects traditionally studied in the literature → no effects on impact (abstracting from labor supply)
- Important in order to think of a decomposition
- Even more relevant given the importance of wage effects

→ How important are Stolper-Samuelson effects vs capital-skill complementarity?



- 5% global TW (left), US-China TW (right), Reyes-Heroles, Traiberman & Van Leemput (2020)

Comment 2/2: More on wealth dynamics

→ Analysis of dynamics focused on aggregate capital

- Wealth distribution changes over time. How?
- Does the initial wealth distribution matter for effects of trade?
- Would hand-to-mouth + capitalists suffice?

Comment 2/2: More on wealth dynamics

→ Analysis of dynamics focused on aggregate capital

- Wealth distribution changes over time. How?
- Does the initial wealth distribution matter for effects of trade?
- Would hand-to-mouth + capitalists suffice?

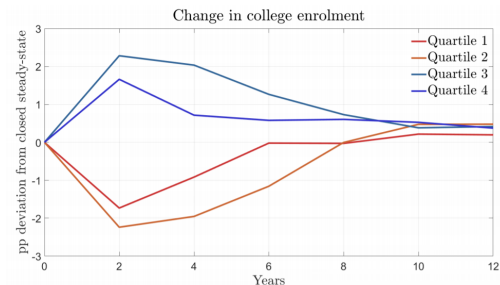
→ Does initial wealth inequality matter for transitional dynamics?

Comment 2/2: More on wealth dynamics

→ Analysis of dynamics focused on aggregate capital

- Wealth distribution changes over time. How?
- Does the initial wealth distribution matter for effects of trade?
- Would hand-to-mouth + capitalists suffice?

→ Does initial wealth inequality matter for transitional dynamics? For the case of skill acquisition, it does...



- Ferriere, Navarro and Reyes-Heroles (2020)