

**Lyon and Waugh (2018): “Redistributing the Gains From Trade  
through Progressive Taxation”**

## High-level Overview of Model. . .

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A bunch of labor markets on which

- Households who live within that labor market,
- Competitive producers on an island produce a differentiated good,
- Producers are subject local and world productivity shocks.

Shocks + actions of households determine the pattern of comparative advantage and, thus, a labor market's trade exposure.

Households have some options. . .

- Work or not
- Stay or move to a new labor market, at some cost.
- Consume and save or borrow in a simple risk free asset.

## Everything A-OK? Not quite.

In our model, the competitive equilibrium does not correspond with the socially optimal outcome.

- Households would like insurance against privately uninsurable shocks.
- Some of these shocks are trade related, so tariffs might help!
  - Corden (1974), Baldwin (1982), Newbery and Stiglitz (1984), Eaton and Grossman (1985), Dixit (1987, 1989a,b).

Our idea: Rather than use tariffs, use the tax system.

- That is, the government could use a progressive tax system to provide social insurance.

## Use Progressive Taxation to Insure the Losers from Trade?

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One motive for progressive taxation: provide social insurance for privately uninsurable shocks (possibly trade related).

- Varian (1980) and Eaton and Rosen (1980).

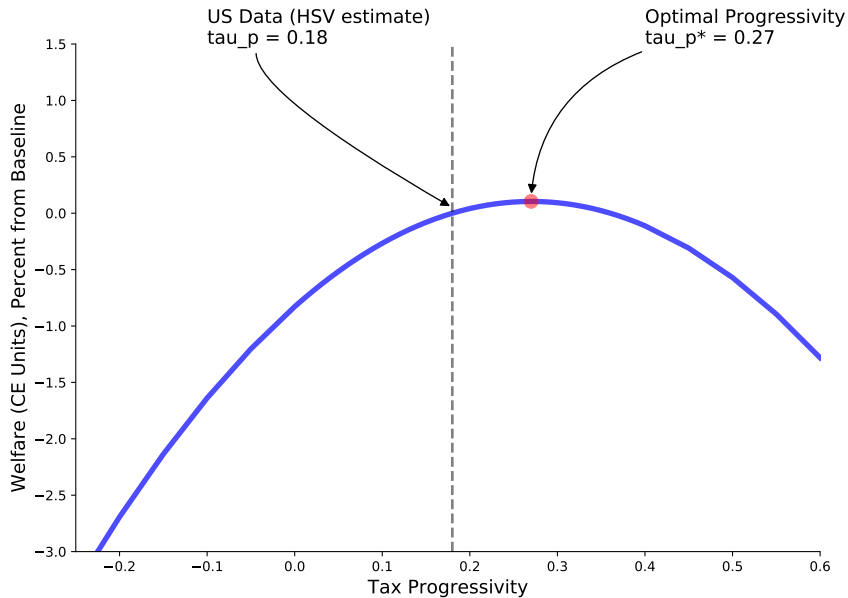
But these policies come with costs. . .

- Reductions in labor supply; reductions in migration. . .
- $\Rightarrow$  Losses in economic efficiency.

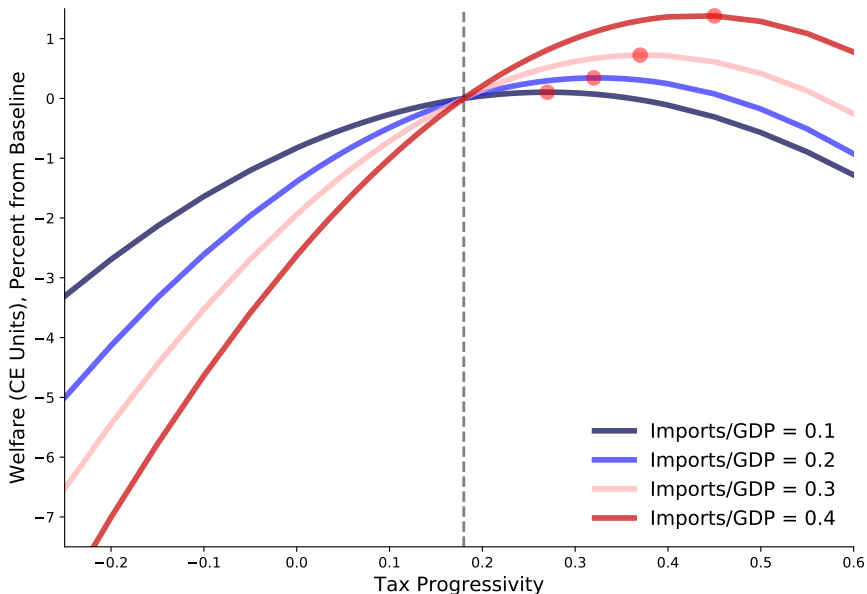
Our question:

**How does openness to trade change this cost-benefit calculation?**

## Social Welfare and Progressivity



## Optimal Progressivity Increases with Openness!



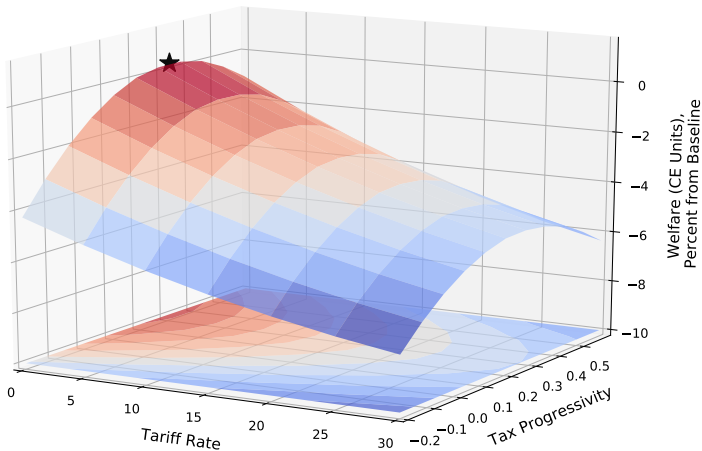
## Optimal Progressivity Increases with Openness!

### Openness and Optimal Progressivity

Imports/GDP	$\tau_p^*$	Welfare		$\Delta$ Marginal Tax Rate	
		Gains from $\tau_p^*$	Losses from Flat	90th Prct.	10th Prct.
0.10	0.27	0.10	-0.83	—	—
0.20	0.32	0.34	-1.39	4.8	-1.5
0.30	0.37	0.72	-1.94	8.8	-1.9
0.40	0.45	1.38	-2.62	15.5	-3.2

**Note:** 90th Prct is the 90th percentile of the labor income distribution; 10th is the 10th percentile. Gains are consumption equivalent values between living in the baseline economy and an economy with an alternative progressivity parameter  $\tau_p^*$ .

## Are Tariffs Welfare Improving? No



**This Economy, Imports/GDP = 0.20**



## Final Thoughts

Hard to deny that the benefits of globalization have been under attack. . .  
And motivating this attack is the idea that trade has imposed hardship on some segments of the population.

The goals of our work are too. . .

- Understand and evaluate these hardships in an interpretable way
- Provide sensible policy responses.

Bonus idea: Concerns about automation are directly related to our work.

- Like trade, automation is a labor saving technology that helps many, but harms those exposed to it.
- Increasing progressivity as automation increases may improve welfare.

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