Trade and Productivity: Costs of Protection

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Trump Tariffs

Goals:

- Move factories “back” to US
- Trade negotiations/trade concessions tactic
- Eliminate deficits
- Not just Trump - alleged that protectionist policies can yield more jobs, more output and a stronger trade balance

Mostly nonsense and at what cost?

- Punish foreign firms/operations – what are the domestic costs?
- Tariffs paid primarily by US consumers and businesses
- Unintended consequences – intermediate inputs, investment, retaliation, productivity

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Outline

- Increased protectionism – US example
- Costs of protectionism – Feenstra etc
- Washing machines
- Macro effects of tariffs
- Trade and protectionism: firm level evidence
  - Canadian experience
  - Brexit
- Conclude

Trump tariffs

- Trump imposed five sets of tariffs in 2018
  - Covering $303.7 billion (12.6 % of US imports)
  - “only” 11.2 % of US imports not already subject to special tariffs of AD & CVD
- Tariffs in addition to the normal tariff imposed on imports arising from trade agreement negotiations:
  - i.e. “most-favored nation” rates of duty collected at US border
  - the “unfair trade” action on China covered 10.4 percent of US imports.
  - the tariffs on steel (1.9 %), aluminum (0.7 %), solar panels (0.3 %), and washing machines (0.1 %)

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	AD/CVD	Chinese goods	Steel	Aluminum	Solar	Washing machines
AD/CVD	1.4%	1.1%	1.0%	<0.1%*	0.1%*	<0.1%
Chinese goods	1.1%	9.2%	-	-	<0.1%	-
Steel	1.0%	-	1.0%	-	-	-
Aluminum	<0.1%*	-	-	0.7%	-	-
Solar	0.1%*	<0.1%	-	-	0.2%	-
Washing machines	<0.1%	-	-	-	-	<0.1%
Total	3.7%	10.4%*	1.9%	0.7%	0.3%	0.1%

PIIE

*Some aluminum and solar products are covered by both AD/CVD and Section 301 (see figure above) but in this table we assign all of the overlap to AD/CVD only.

Note: Special tariffs refer to antidumping/countervailing duties (AD/CVD) and President Trump's five tariff actions of 2018 on: Chinese goods (Section 301), steel (Section 232), aluminum (Section 232), solar (Section 201), and washing machines (Section 201). AD/CVD includes duties in effect in 2018. Totals for each tariff group and all goods covered are based on unrounded data.

Source: Bown (forthcoming).

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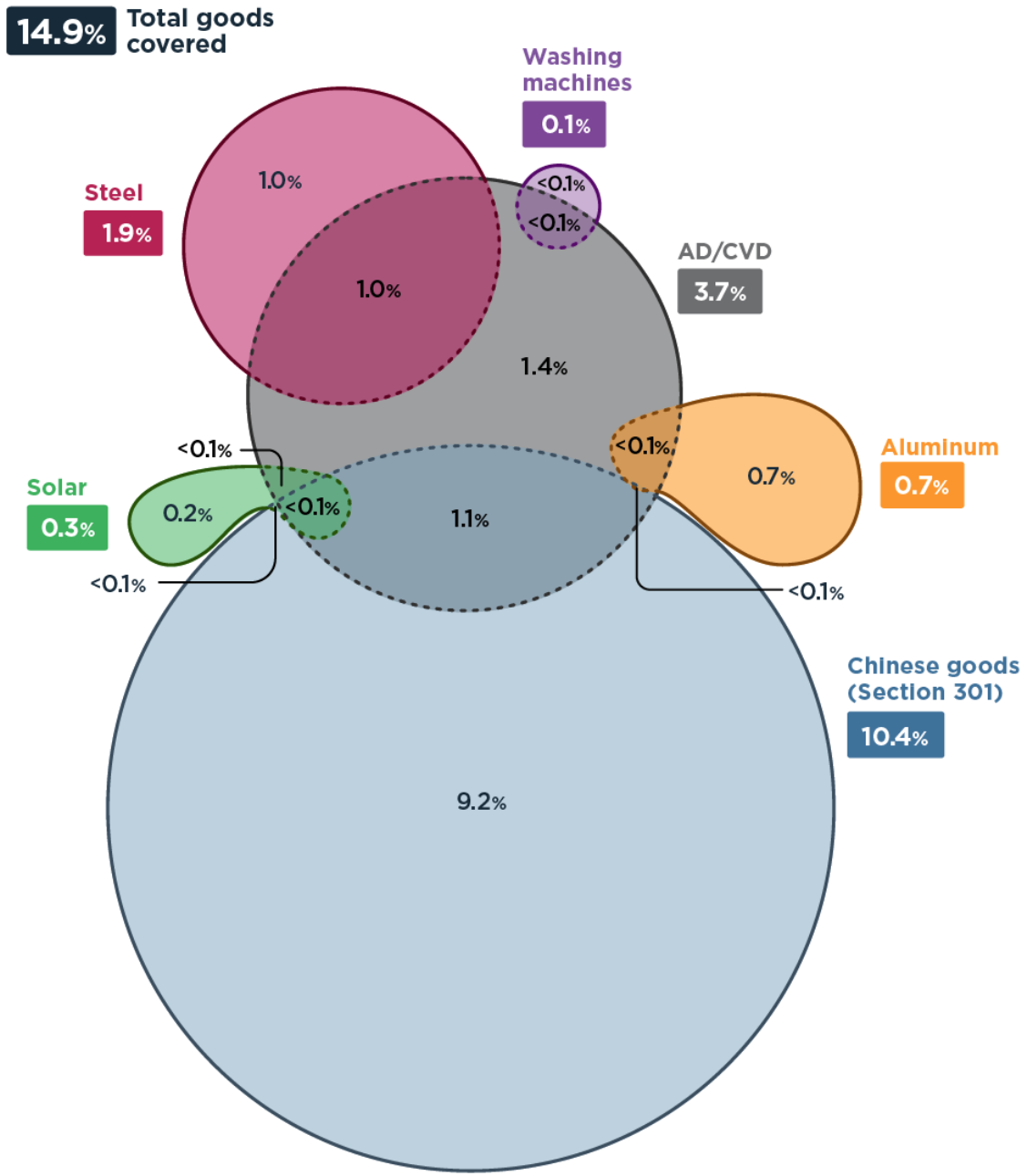
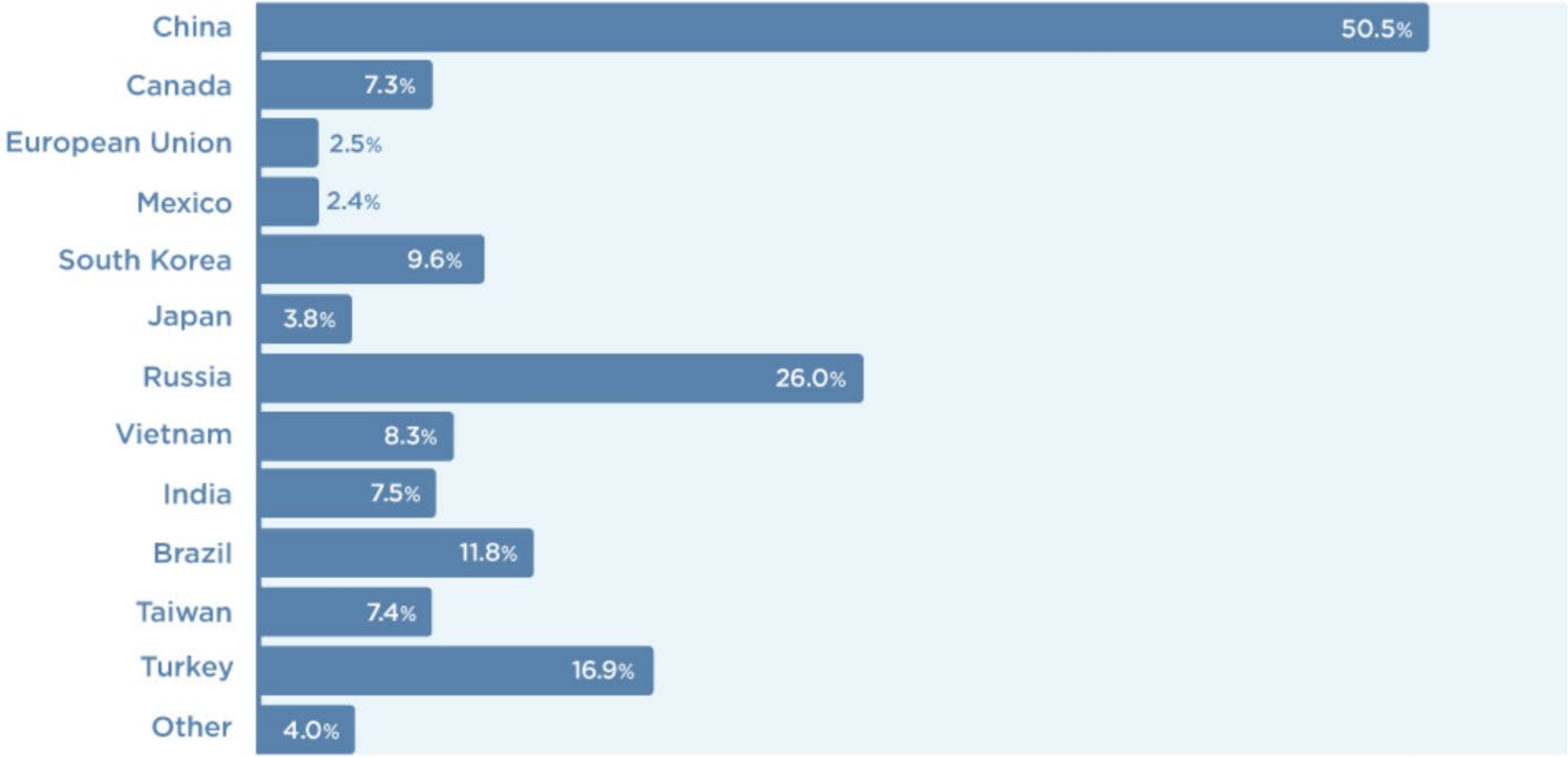
Some products are being hit by multiple US tariffs

Percent of US goods imports covered by special tariffs, in effect in 2018



b) Share of total exports to US covered by 2018 special tariffs, by partner



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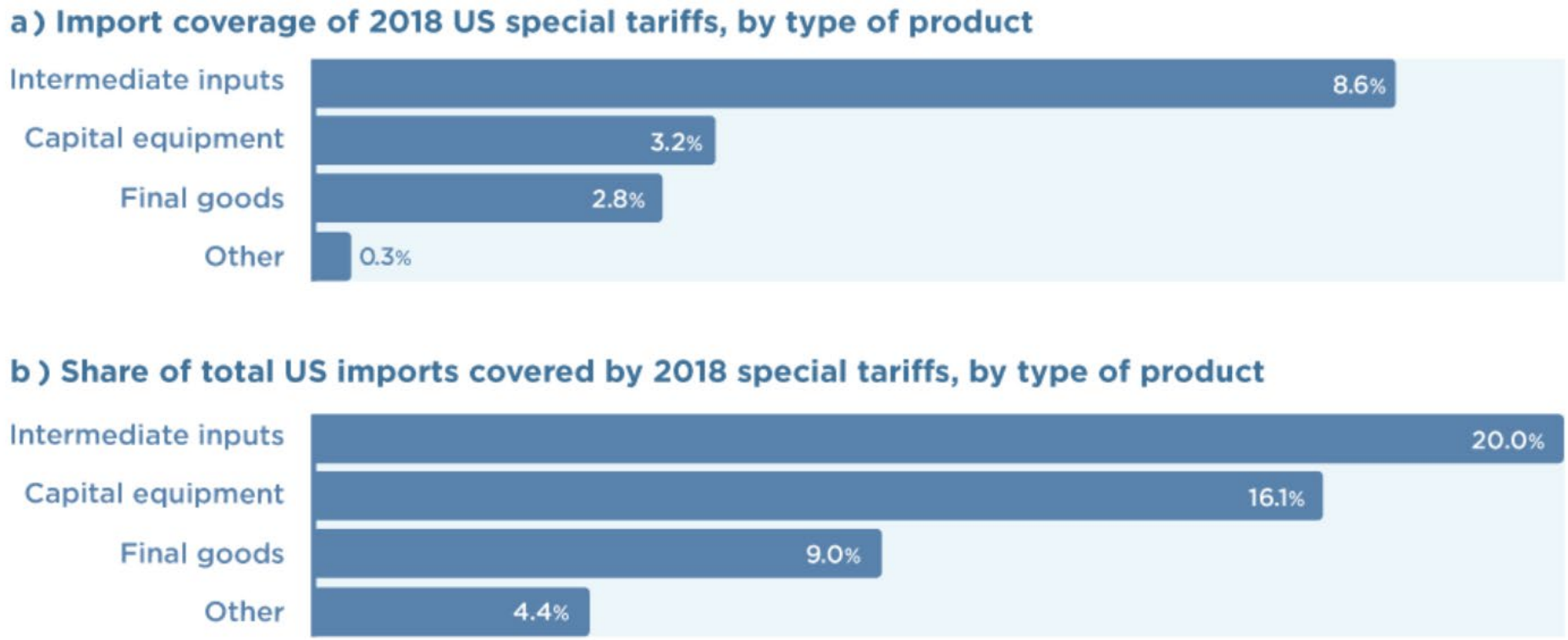
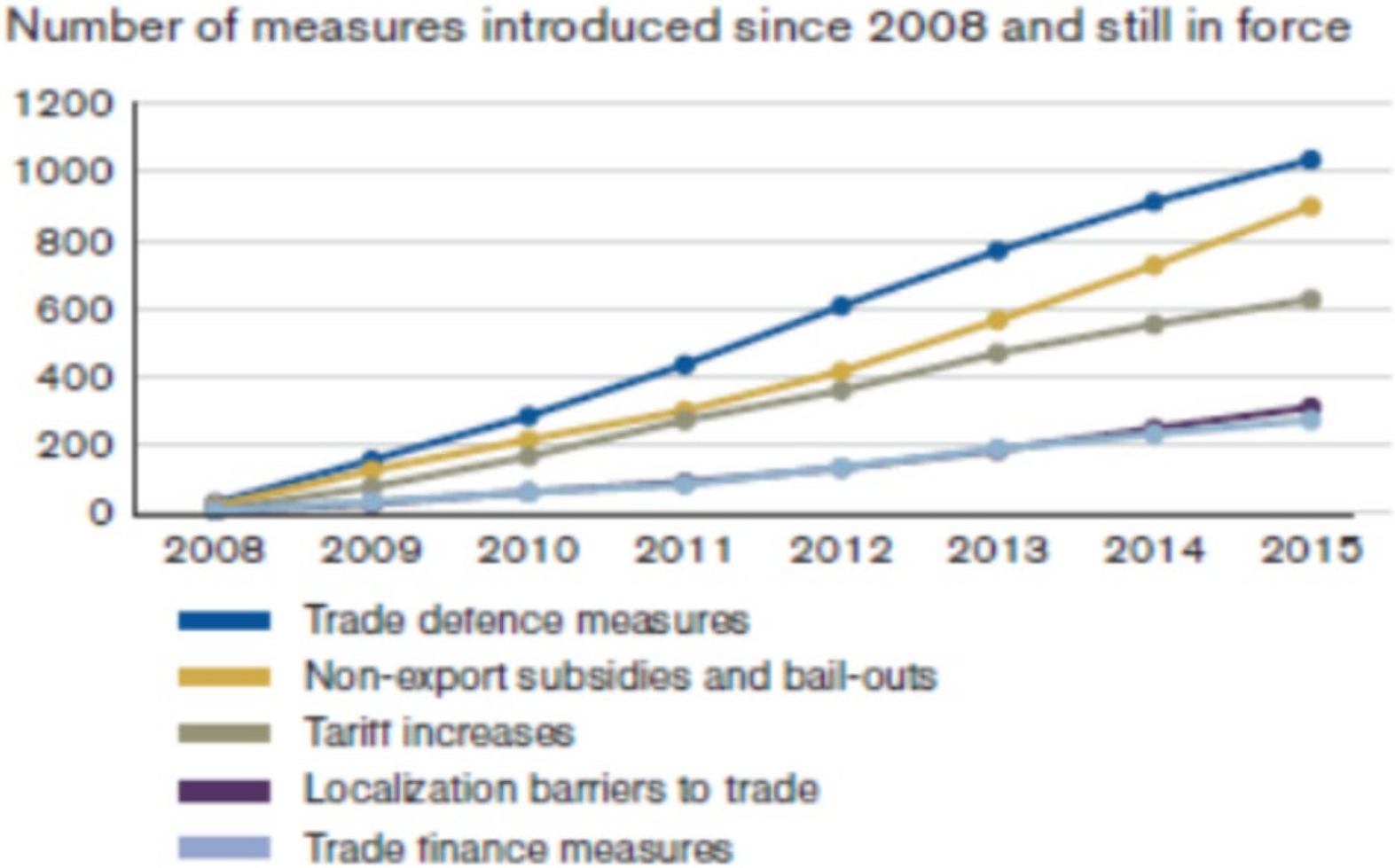
Trade and Protectionism

US special tariffs' coverage, by import product category





The top five protectionist measures

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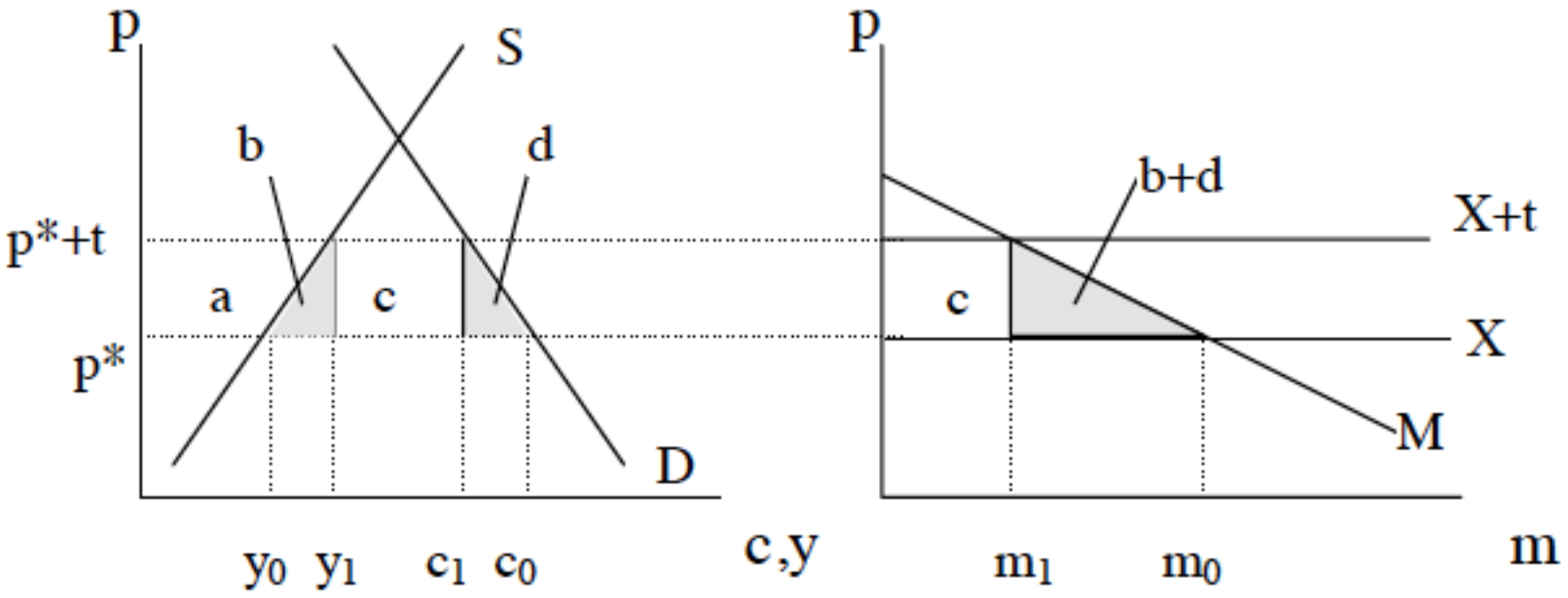
Costs of Protectionism

- Classic study by Feenstra – static partial equlibrium



(a) Domestic market (b) Import market

Figure 7.1: Small Country

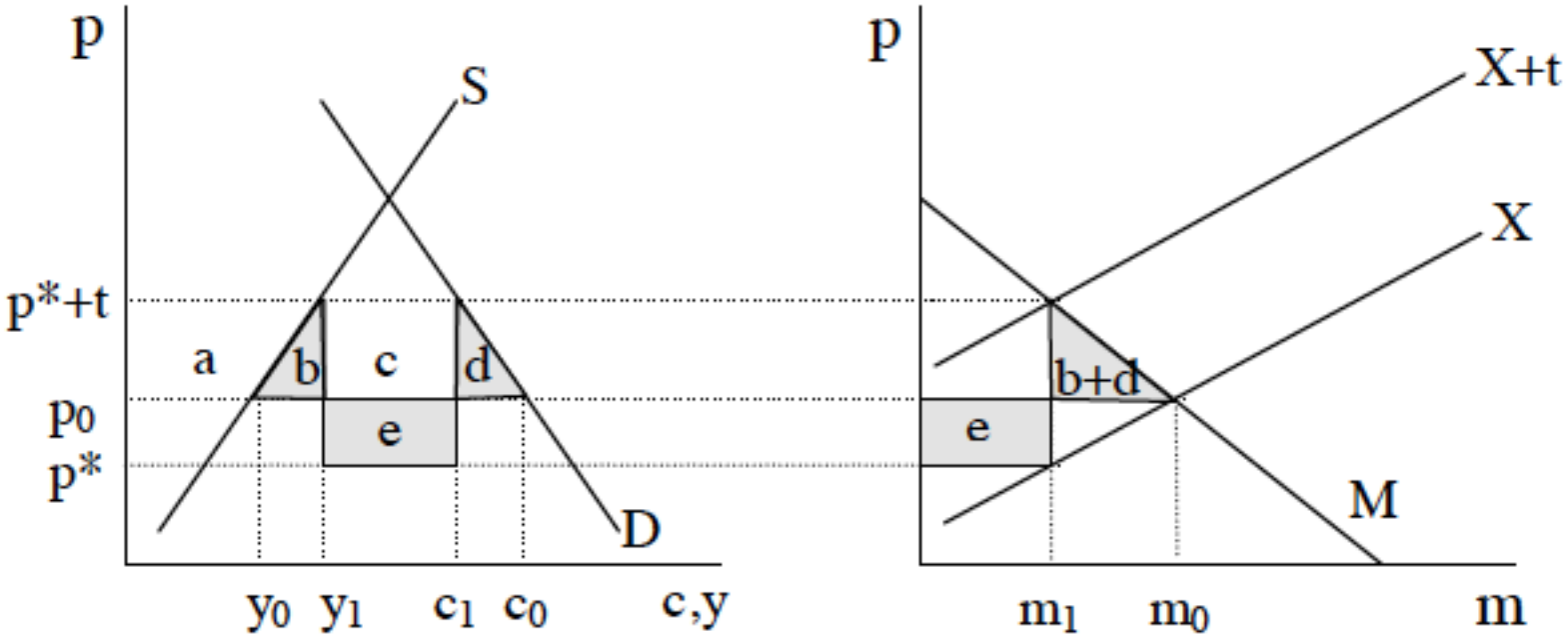


Figure 7.2: Large Country

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The incidence of tariffs

- Are tariffs passed through to consumers or absorbed by the foreign producer by lowering their export price
  - Direct evidence on this question is scarce
  - Most new tariffs were placed on intermediate goods where tracking the price effects is a particular challenge
- **Washing machines** provide direct evidence on the effects of recent trade policies on trade flows, domestic production, and prices

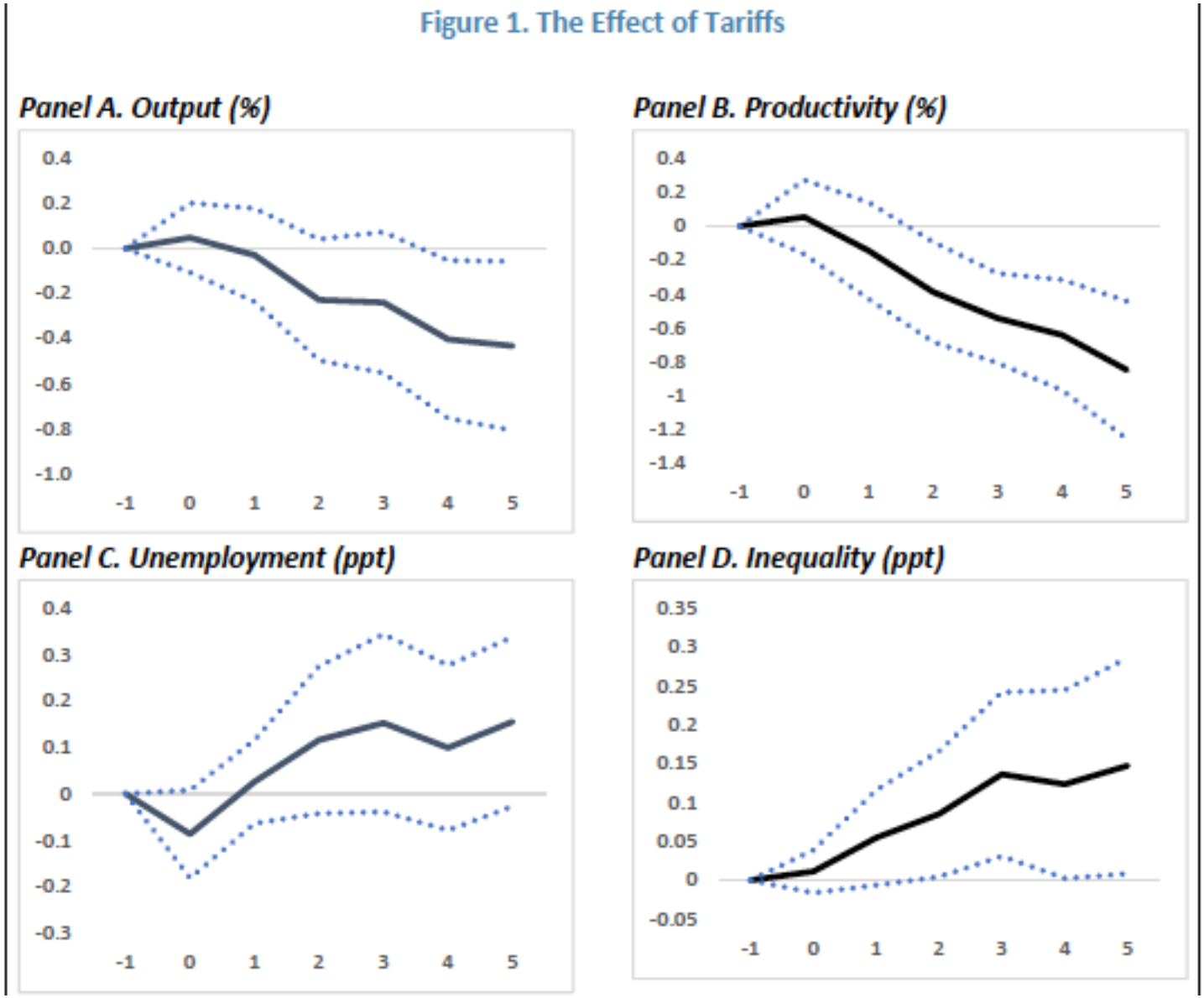
Washing machines (Flaaen et al)

- Consumers paying about 12% more for washing machines (about $86 for washing machine)
- And price of dryers have gone up $92 for each dryer – even though there is no tariff on dryers
- Altogether - U.S. consumers are spending an additional $1.5 billion a year on washers and dryers as a result of the tariffs
  - Less than 10 % of it goes to the U.S. Treasury ($82.2 m)
  - U.S. consumers shouldered 125 -225 % of the costs of the tariffs
  - Difference = markups and cost increases from moving production
- Estimated 1,800 jobs created in response to the tariffs, (about $815,000 per job)

Macro effects of tariffs (Furceri et al)

- Panel data covering 1963-2014 and 151 countries, (34 advanced and 117 developing countries)
- Tariff increases:
  - declines of output and productivity in the medium term
  - increases in unemployment and inequality
  - no improvement in the trade balance after tariffs rise
  - the longer-term consequences of tariffs are likely higher

Macro Effects of tariffs (Furceri et al)



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The long and short of trade

Trefler on CUSTA:

- Short-run adjustment costs of 100,000 jobs, or 5% of manufacturing employment.
- Some industries that had very large tariff cuts saw employment fall by as much as 12%
  - Over time, however, these job losses were more than made up for by creation of new jobs elsewhere in manufacturing.
  - There were *no long run job losses* due to NAFTA.

CUSTA and rationalization

- Evidence from Head and Ries (1998)
- 1988-94, the number of plants decreased by 21% while output per plant increased by 34%
- Looks like textbook monopolistic competition…
  - a change in the structure of the Canadian manufacturing sector and an overvalued Canadian dollar.
  - CUSTA led to fewer plants but also led to a reduction in plant scale

Long run, large positive effects on productivity

Trefler - productivity:

- 15% increase over eight years in industries most affected by tariff cuts - compound growth of 1.9%/year.
- 6% for manufacturing overall - compound growth of 0.7%/year.
- The difference of 1.2%/year is an estimate of how free trade with the U.S. affected the Canadian industries over and above the impact on other industries.
- There was also a rise of 3% in real earnings over this period.

- Consistent with the monopolistic competition model – with firm heterogeneity.

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Economic costs of Brexit

- Ottavio et al. find that there would be less trade with the EU because of higher tariff and non-tariff barriers and that this would lower income around 3.1% of GDP (£50 billion).
- That impact is based just on **static welfare** losses of reduced trade:
  - when they include **dynamic effects** and take into account the reduction in **productivity**, they find that income will decline by 6.3% to 9.5% of GDP from leaving the EU.
- They point out that this impact is in the ball park of the loss of income from the global financial crisis of 2008/09
- Dhingra et al. use a CGE model: find that the impact on Brexit ranges from a loss of 1.3 % of GDP based on the Norway scenario and 9.5 % based on the WTO scenario.
- Davies and Studnicka examine the impact on FDI and conclude that Brexit will produce a 22% decline in FDI over the next decade and reduce GDP by between 1.8% and 4.3%

Brexit, Uncertainty & Global values chains

- Head & Mayer make the important point that it is not just the tariffs and the impact on trade directly, but with GVCs there are other important implications and they quantify these impacts
- Focus on autos - the impact of Brexit on where manufacturers decide to locate production and assembly plants
  - the implications of increased trade costs on the complex structure of multinational production
- firms are continually making a broad range of deep decisions on allocating the production of different varieties of their products to different plants in order to serve in the most efficient way the different markets they have decided to target.
- These decisions are affected by different frictions associated with crossing borders that include the traditional trade costs of tariffs and non-tariff barriers in addition to the costs affecting the ease of coordinating the production process

Brexit, Uncertainty & Global values chains

- Limao & Maggi and Handy & Limao (2015): trade agreements not only boost trade by lowering trade barriers but also create stability and certainty
- Renegotiations of trade agreements have historically been straightforward until recently when they have taken on a significant down-side risk.
- Historically the fall-back position on the renegotiations has been the status quo. That has changed recently with the Korea-US FTA, and very dramatically with NAFTA and Brexit
- Crowley et al. put the Brexit case into context and point out that the Brexit vote to Leave the EU on May 23, 2016 was completely unexpected.
  - The vote led to the renegotiation between the UK and the EU where the "threat point" or fall-back position of not reaching an agreement on Brexit is a heightened level of tariffs.
- Crowley et al find evidence of the negative impact of uncertainty on exporting firms

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Evidence from Canada

- Trefler (2004) Canada, 1980–1996 CUSTA: labor productivity positive
- Lileeva and Trefler (2010) Canada, 1984–1996 CUSTA: labor productivity, product innovation
- Kueng, Li, and Yang (2017) Canada, 1999–2005: Chinese import penetration – negative impact on product and process innovation

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Conclusions

- Various approaches to evidence of trade impact on productivity
- Most firm level evidence is from Latin American countries and emerging economies
- Need to do more work on this for developed economics and Canada in particular
- More work using micro data required to understand impact of recent trade shocks on Canadian firms and on productivity

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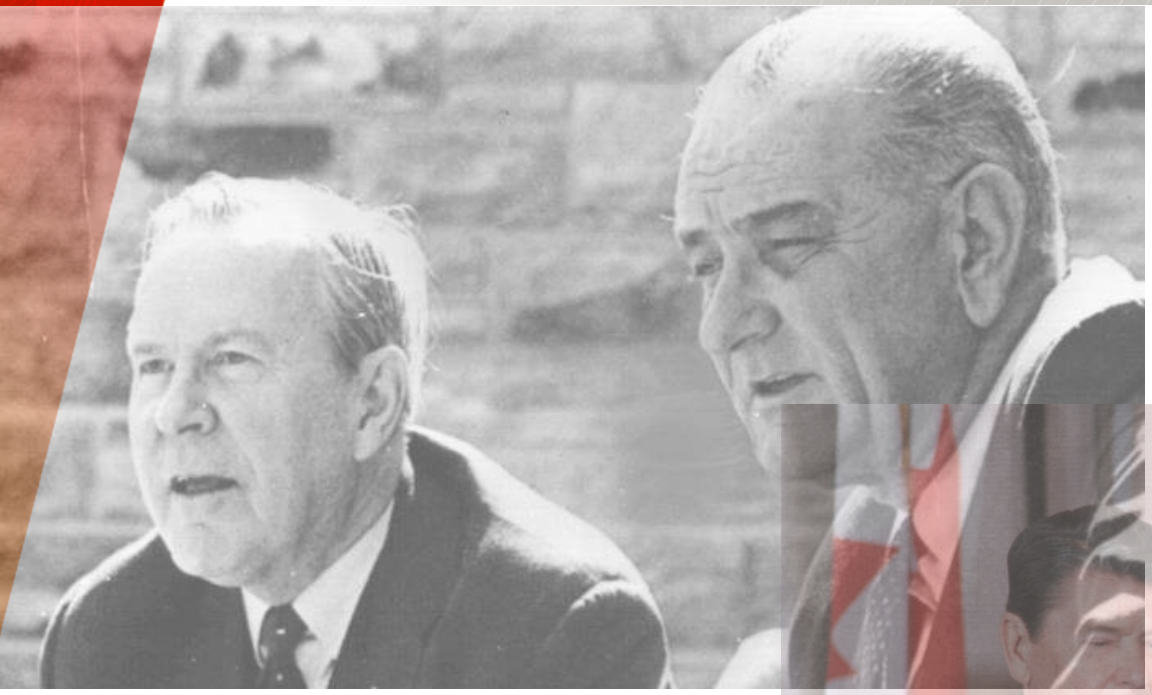
Thank you!



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