

Updating Economic Cooperation: Rethinking flexibility tools in light of modern evidence

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World Trade Organization

Part 1: Price-setting by firms in the global economy

- A tale of two countries – China and the United Kingdom

Part 2: Trade policy flexibility in the WTO

- Antidumping, safeguards, and anti-subsidy measures in action

Part 3: The path forward

- Contingent protection for temporary shocks
- Long term growth and permanent shocks

Global firms and local markets

New insights from Big Data from China and the UK

To consider what kinds of flexibilities the WTO should offer to member states, start by examining the actions and behaviour of global firms – companies that sell their output in foreign markets.

Global firms and local markets

New insights from Big Data from China and the UK

How do firms set prices for their exports to different countries?

$$\text{Price} = \text{Markup} + \text{Marginal cost}$$

Firms may charge a destination-specific markup with pricing and sales decisions depending on both local and global economic conditions.

$$\text{Price} = \text{Local markup in destination} + \text{common global markup} \\ + \text{Marginal cost}$$

What are the implications for trade policy?

The universe of Chinese exporters, 2007

Multi-product, multi-destination exporters are responsible for most trade

Number of Products		Number of Foreign Countries				Total
		1	2-5	6-10	10+	
by Share of Firms	1	13.5	6.4	1.6	1.2	22.6
	2-5	9.5	16.5	5.8	5.8	37.6
	6-10	2.2	5.5	3.3	4.4	15.3
	10+	2.1	4.7	4.1	13.6	24.6
	Total	27.2	33.1	14.7	25.0	100.0
by Share of Exports	1	1.2	1.3	0.8	1.3	4.7
	2-5	1.9	4.3	3.3	8.8	18.4
	6-10	0.6	2.2	2.0	8.1	13.0
	10+	1.6	4.0	4.2	54.0	63.9
	Total	5.4	11.9	10.4	72.3	100.0

⇒ **72.8% of export transactions conducted by multi-destination exporters**

⇒ **94.6% of export value originates from multi-destination exporters**

Notes: Cells in top panel show the percentage of obs. in the Chinese customs data that falls under the relevant description. Bottom panel presents corresponding value of exports. Source: Corsetti, Crowley, Han and Song (2018)

Pricing strategy depends on competition in product markets & firms' market power



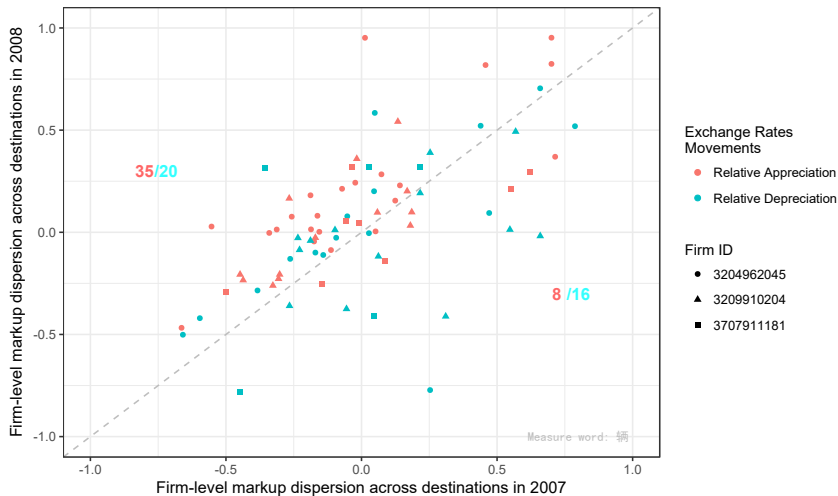
Tomato paste and tractors are “differentiated manufactured goods.”

But tomato paste seems less differentiated than tractors.

Are firms' pricing strategies similar for these two products?

Wheeled tractor prices in foreign markets of 3 Chinese exporters

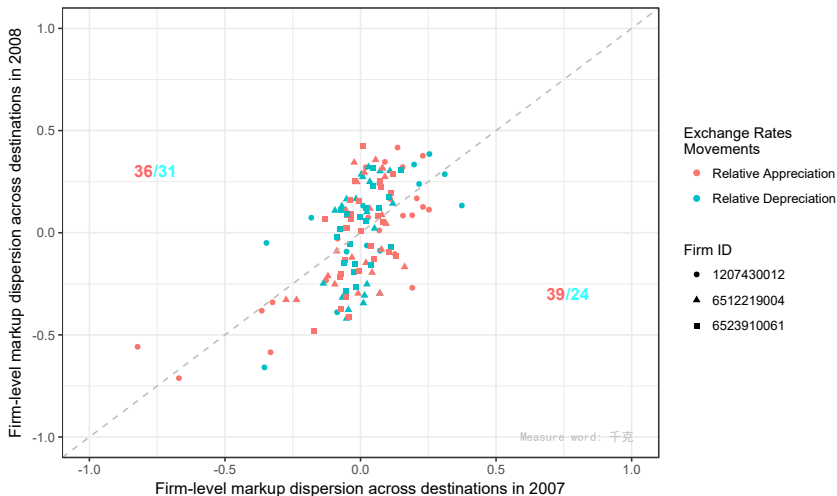
Local price - relative to the firm's average - changes with local economic conditions



Source: Corsetti, Crowley, Han and Song (2018)

Tomato paste prices in foreign markets of 3 Chinese firms

Far less “pricing to market” for less-differentiated goods \Rightarrow global pricing



Source: Corsetti, Crowley, Han and Song (2018)

Pricing by global Chinese firms in local foreign markets

We see that pricing and markups vary systematically across:

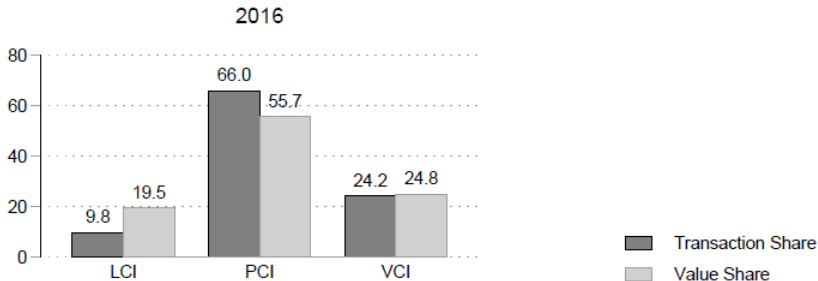
- Product types
 - less vs. more differentiated and intermediate vs. final goods
- Firm features
 - Big vs. smaller firms and foreign-invested vs. locally-owned

⇒ jointly proxying for the amount of market power a firm holds in a local market.

“Normal” pricing – for some firms and products – involves large differences in the level of the price across foreign markets and in changes in the price that respond to local and global economic conditions.

Pricing strategy reflects the choice of invoicing currency

Share of UK's extra-EU exports by invoicing scheme (2016)



- 20% of UK exports invoiced in destination (local) currency (LCI)
- 55% of UK exports invoiced in sterling (PCI)
- 25% of UK exports invoiced in vehicle currency (VCI) (\$, €, ¥)

Source: Corsetti, Crowley, and Han (2018)

Pricing by global UK firms in local foreign markets

Pricing strategy, which depends on product market competition and market power, reflects the choice of invoicing currency:

- When exports are invoiced in the local currency of the destination country, UK exporters **adjust the local component of the markup to local economic conditions in the destination country.**
- When exporters use producer (£) and vehicle currency (\$, €) to invoice exports, they **DO NOT** adjust markups to local market conditions. They follow a **global pricing strategy.**

Pricing behaviour is complex - firms use multiple invoicing currencies in the same destination **AND** they switch their invoicing currencies over time.

Summary: Insights into price-setting from two countries

Chinese and UK exporters engage in “pricing to market” and adjust their prices and the markups to local and global market conditions.

In some sectors, profit-maximizing behaviour results in price differences across markets that look like “dumping,” but are not necessarily anti-competitive.

Some of the economic criteria in the Agreement on Antidumping appear to penalize firms for “normal” profit-maximizing behaviour.

Flexibilities as part of a liberal trading system

Today, trade policy in many countries is characterized by low or zero tariff rates on most products and high tariffs or other import restrictions on a small subset of products.

For the US, the simple average of MFN tariff rates in 2010 was 3.6%. However, the US imposed **WTO-permitted temporary trade barriers** on 5.7% of imported products in the same year.

Terms of Trade Theory

Economists argue countries come together and negotiate tariff reductions to improve their mutual welfare.

- However, a short term change in import demand or export supply can reduce the incentive to cooperate with low tariffs.
- Thus, flexibility provisions allowing **short term tariff increases in limited circumstances are a necessary feature of any sustainable trade agreement.**

It is important to understand what types of shocks drive the use of “contingent” temporary trade barriers so that we can design appropriate trade agreements.

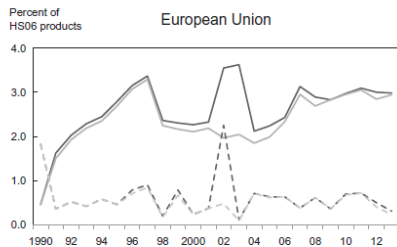
Does a broad commitment to liberal trade...

Applied and Bound Import Tariffs, 2013

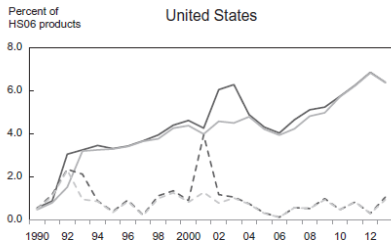
Country/territory	MFN applied rate, simple average (1)	WTO binding rate, simple average (2)	Products with binding coverage (3)	Products with applied duties > 15% (4)	Products with binding rates > 15% (5)	Maximum MFN applied rate (6)
G20 High-income						
Australia	2.7	10.0	97.0	0.1	13.4	140.0
Canada	4.2	6.8	99.7	6.8	7.3	484.0
European Union	5.5	5.2	100.0	5.1	4.8	511.0
Japan	4.9	4.7	99.6	3.7	3.7	736.0
Korea	13.3	16.6	94.6	10.4	20.5	887.0
United States	3.4	3.5	100.0	2.7	2.7	350.0
G20 Emerging						
Argentina	13.4	31.9	100.0	36.0	97.8	35.0
Brazil	13.5	31.4	100.0	36.2	96.4	55.0
China	9.9	10.0	100.0	15.6	16.4	65.0
India	13.5	48.6	74.4	19.0	71.5	150.0
Indonesia	6.9	37.1	96.6	1.7	90.7	150.0
Mexico	7.9	36.2	100.0	15.7	98.7	210.0
South Africa	7.6	19.0	96.1	20.7	39.6	>1000
Turkey	10.8	28.6	50.3	13.6	28.9	225.0

...rely on a trade agreement's flexibility?

Percent of HS06 products subject to a temporary trade barrier, 1990-2013



— All TTB stock: imports subject to any TTB in effect
- - - All TTB flow: imports subject to any newly initiated TTB investigation



— AD stock: imports subject to AD in effect
- - - AD flow: imports subject to any newly initiated AD investigations only

Source: Bown and Crowley (2016)

The use of temporary trade barriers

Economic studies have found that WTO members respond to economic shocks with increased temporary trade barriers.

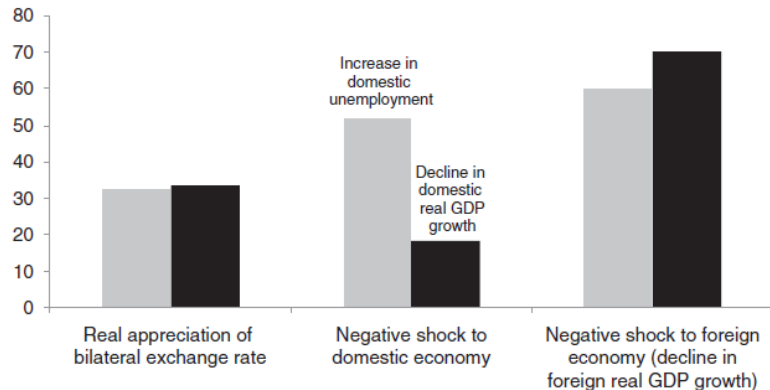
Import volume shocks (increases) in the US over 1997-2006 led the US to increase the likelihood of an antidumping duty by about one-third (Bown and Crowley, AER, 2013).

High- and middle-income countries use product level trade barriers to mitigate adverse aggregate shocks (Bown and Crowley, JIE, 2013 and JDE, 2014).

Temporary Trade Barriers and Macro Shocks

High-Income WTO members, 1988-2008

Percent change in HS-06 products subject to new import protection in response to one s.d. shock

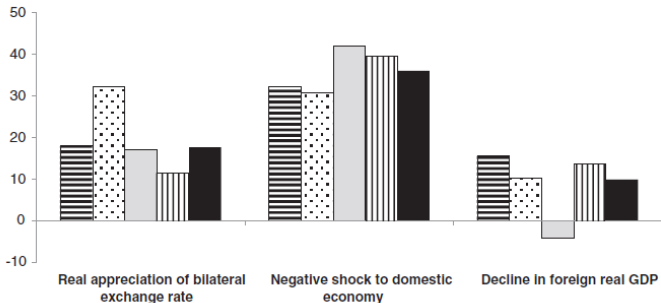


Source: Bown and Crowley (2013)

Temporary Trade Barriers and Macro Shocks

Emerging Economy WTO members, 1995-2010

Percent change in HS-06 products
subject to new import protection in
response to one s.d. shock



High and middle-income countries use more temporary trade barriers when:

- the domestic currency appreciates
- domestic real GDP growth falls
- foreign trading partner's real GDP growth falls

Lessons from empirical evidence for future policy design

Can we design short-term flexibility tools to improve overall welfare?

- ① Fluctuations in prices over time and differences across countries exist because firms optimally respond to changes in local and global economic environments. They do not necessarily imply anti-competitive behaviour.
 - Tying the use of temporary tariffs to particular pricing patterns lacks a clear economic rationale.
 - In a variety of circumstances, current rules on antidumping would preclude optimal, profit-maximizing pricing by a firm.

Lessons from empirical evidence for future policy design

- ② Evidence suggests contingent protection and trade policy flexibility are integral to a welfare-maximizing trade agreement.
 - Constraining the available policy-space for temporary trade barriers by too much could be inefficient for the overall trade agreement.
 - But too much flexibility over trade policy creates uncertainty which can reduce exporting activity.

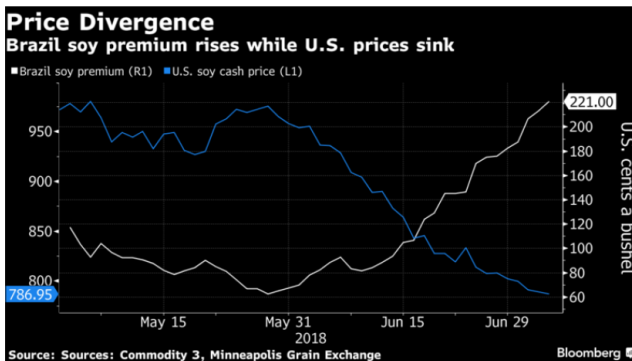
Lessons from empirical evidence for future policy design

- ③ The challenge of policy design for flexibility tools is to select
 - features for the policy tool – duration, country-scope, restrictiveness – and
 - criteria for implementation

that offer the best solution to members for coping with temporary (demand or macro shocks) and permanent (technology or government policy) changes in the economic environment.

Trade Agreements reduce negative price externalities

Import tariffs by large countries can depress export prices



- 4 April 2018 - China threatens a tariff on US soybeans
- 6 July 2018 - Chinese imposes a tariff on US soybeans