

Trade costs

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References for this lecture

BBGV Chapter 6, paragraph 6.1, 6.2 Chapter 5, paragraph 5.2

Trade costs

- Transport costs
- Tariffs
- Non-tariff trade barriers
- Costs due to cultural differences

How relevant are trade costs?

- Suppose a country accounts for 10 percent of world's GDP
- Full integration of markets would imply that the share of output sold to 'home' consumers produced by 'home' producers should be around 10 percent of total production of 'home' producers
- Foreign sales should account for about 90 percent of the total production of 'home' producers

How relevant are trade costs?

- Western Europe and the US account (each) for about 20 percent of world GDP
- That would imply that export should account for about 80 percent of GDP

 However, export is only about 10 percent of GDP in US and 40 percent in EU

Table 6.1 Regional trade pattern of	f Europe; percent	of total, 1860-2009
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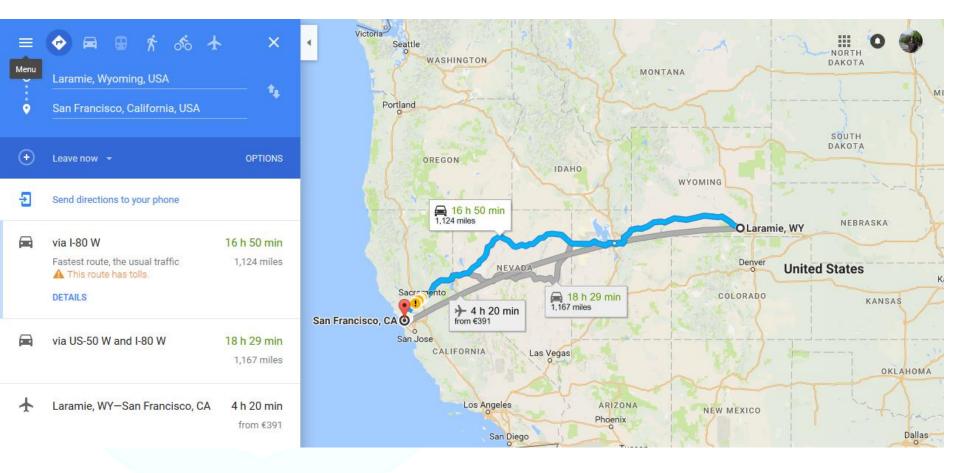
Export to:	Europe	United States	China	Japan	Rest of world
1860	67.5	9.1			23.4
1910	67.9	7.6			24.5
1999	69.1	8.5	0.9	1.6	19.9
2004	68.5	7.8	1.6	1.4	20.7
2009	66.7	6.2	2.5	1.1	23.5
Import from:	Europe	United States	China	Japan	ROW
Import from: 1860	Europe 61	United States 14.3	China	Japan	ROW 24.7
I	1		China	Japan	
1860	61	14.3	China 2.4	Japan 3.4	24.7
1860 1910	61 60	14.3 14		L	24.7 26

Source: Baldwin and Martin (1999) for 1860 and 1910 data, other data from Eurostat; China excludes Hong Kong.

Transportation costs

- Transportation costs are tightly related to
 - Geographical distance
 - Mode of transportation (sea, river, air, land, etc)
- The mode of transportation depends on the type of good
- Transportation costs for exporting may vary even substantially within a country
 - Producers in places close to a port, an airport, a border pay much less than other producers

From Laramie, WY to San Francisco, CA



How to measure transportation costs?

Trade statistics

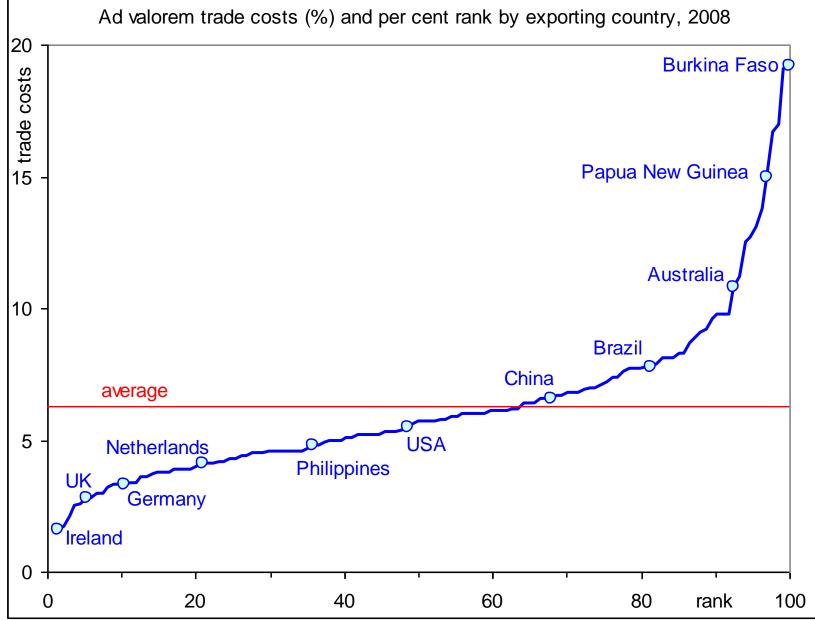
- In principle, the value of export from country *i* to country *j* should be equal to the value of import of country *j* from country *i*
- Import and export, however, are evaluated in different ways in trade statistics
- Import → CIF
 - **CIF** = Cost, Insurance, Freight
 - The **value** of import includes **all costs** paid by the exporter to ship the marchandise to the border of the importer
- Export → FOB
 - FOB = Free on Board
 - Export just include those costs paid to prepare the marchandise for export, up to the home port/border

Indicator of transportation costs

 The relative incidence of transportation costs in international trade can be proxied by the following indicator

(Import ^{*i from j*}/Export ^{*j to i*}) - 1

Figure 6.1 Ad valorem trade costs by exporting country, 2008 (%)



Source: based on data for 134 countries from Sourcin and Pomfret (2012).

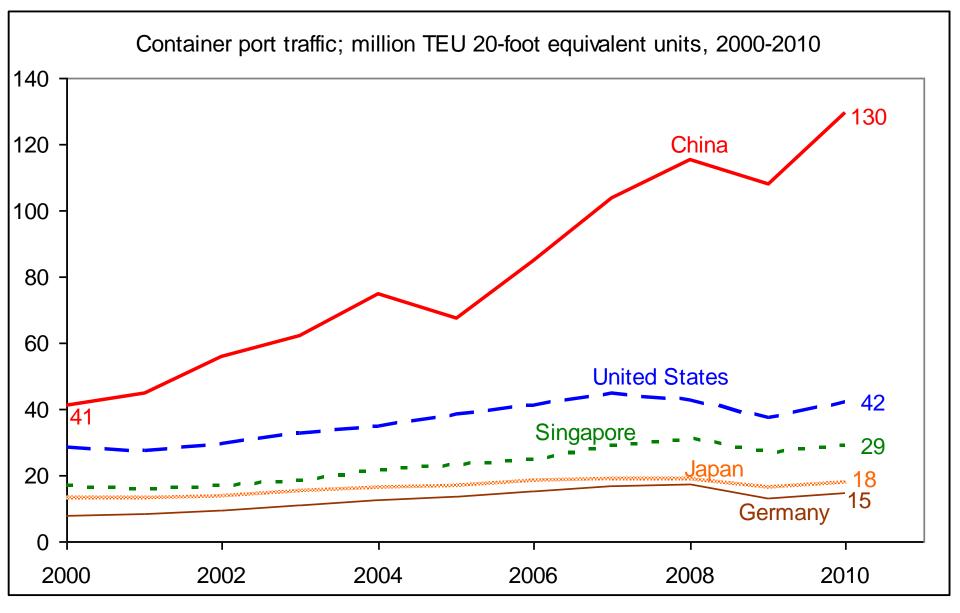
Drivers of transportation costs

- Transportation costs are high for
 - Landlocked countries (e.g. Burkina Faso)
 - Countries that are located far away from their trade partners (e.g. Australia)

Transportation costs and tariffs

- For the US
 - Transportation costs on import account for about
 4.8 percent of the value of imported goods
 - Tariffs on import account for about 4.1 percent of the value of imported goods
 - Transportation costs are as important as tariffs!

Figure 6.2 Container port traffic; mn TEU 20-foot equivalent units, 2000-2010



Transportation modes

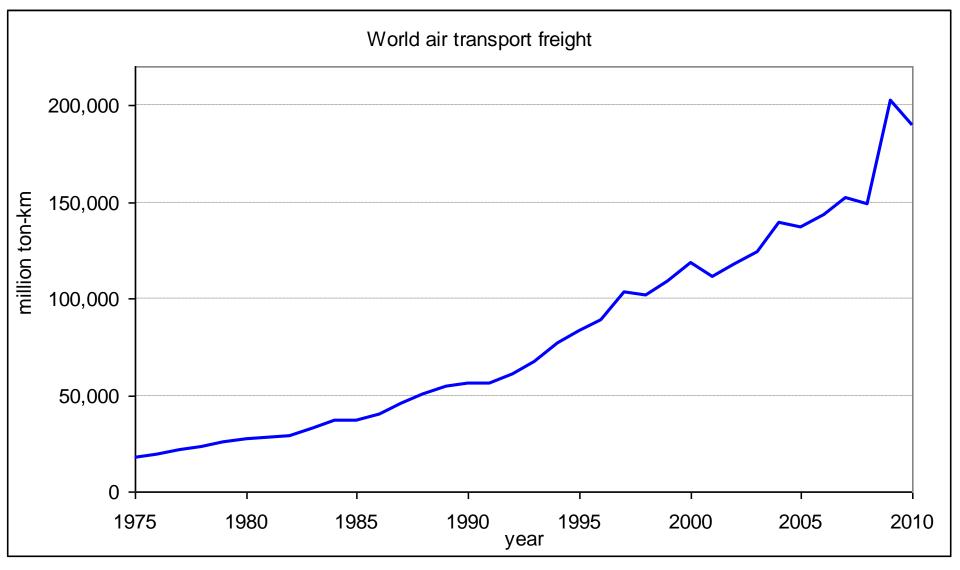
- Most commodities are shipped by the sea
- Road and rail transport remain important, especially for big and landlocked countries
- Air transport remains very expensive and is mostly used for high-value and perishable commodities → 0.6 percent of weight but 35 percent of value of world international trade

International Economics and Business Chapter 6 – Firms, location, and distance

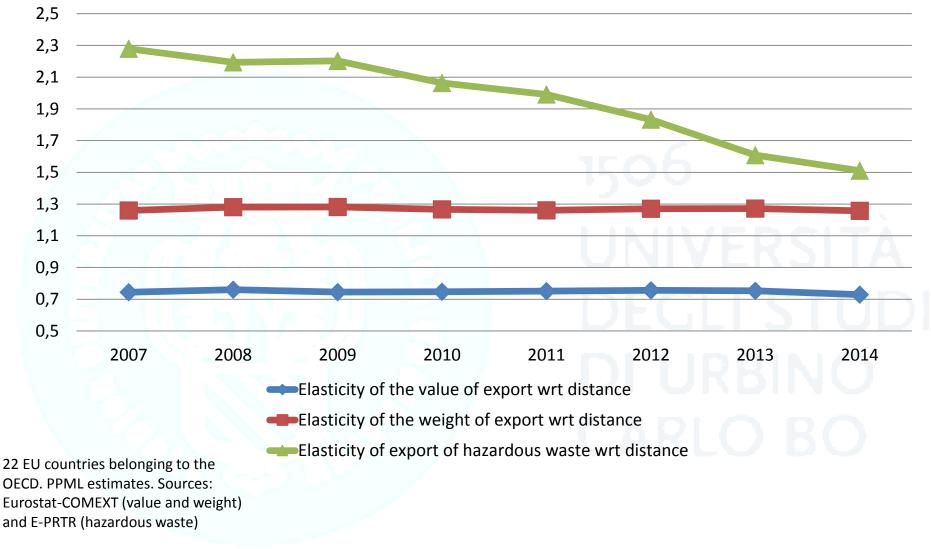
Table 6.2 The world	's largest container ports;	mn TEU, 1989 and 2009

	1989		2009	
1	Hong Kong	4.5	Singapore	25.8
2	Singapore	4.4	Shanghai (China)	25.0
3	Rotterdam (Netherlands)	3.9	Hong Kong	20.9
4	Kaohsiung (Taiwan)	3.4	Shenzhen (China)	18.2
5	Kobe (Japan)	2.5	Busan (South Korea)	11.9
6	Busan (South Korea)	2.2	Guangzhou (China)	11.2
7	Los Angeles (USA)	2.1	Dubai (Un Arab Emirates)	11.1
8	New York (USA)	2.0	Ningbo (China)	10.5
9	Keelung (Taiwan)	1.8	Qingdao (China)	10.2
10	Hamburg (Germany)	1.7	Rotterdam (Netherlands)	9.7
11	Long Beach (USA)	1.5	Tianjin (China)	8.7
12	Yokohama (Japan)	1.5	Kaohsiung (Taiwan)	8.5
13	Antwerp (Belgium)	1.5	Antwerp (Belgium)	7.3
14	Tokyo (Japan)	1.4	Port Klang (Malaysia)	7.3
15	Felixstowe (Britain)	1.4	Hamburg (Germany)	7.0
16	San Juan (Puerto Rico)	1.3	Los Angeles (USA)	6.7
17	Bremen (Germany)	1.2	Tanjung Pelepas (Malaysia)	6.0
18	Oakland (USA)	1.1	Long Beach (USA)	5.0
19	Seattle (USA)	1.0	Xiamen (China)	4.6
20	Manila (Philippines)	0.9	Laem Chabang (Thailand)	4.6
Sou	rce: The Economist Aug 24, 2010			

Figure 6.3 Developments in world air transport freight; mn ton-km, 1975-2010



Distance and trade within the EU



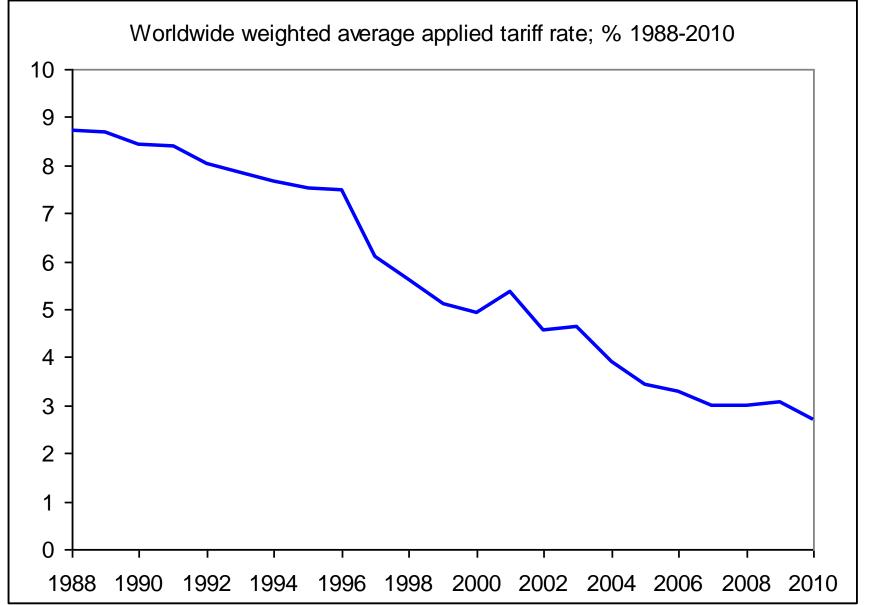
Tariffs

- Tariffs are levied on import of certain commodities by the government of the importing country
- Aims of tariffs
 - Protect home producers from foreign competition
 - Generate tax revenue for the government → particularly important for developing countries that are not able to raise taxes at home

Tariffs and GATT-WTO

- GATT (General Agreement on Tariffs and Trade, 1947-1995) and WTO (World Trade Organization, 1995-today) organized various multilateral trade negotiations to reduce tariffs
- GATT and WTO also aimed at reducing nontariff trade barriers

Figure 5.1 Worldwide applied tariff rate, 1988-2010



Source: World Development Indicators online; applied tariff rate, weighted mean, all products. Applied rates are rates that are actually used and differ from those that are allowed (these are the so-called bound rates, which are usually higher than the applied tariff rates)

Figure 5.2 USA average tariffs, 1820–2010

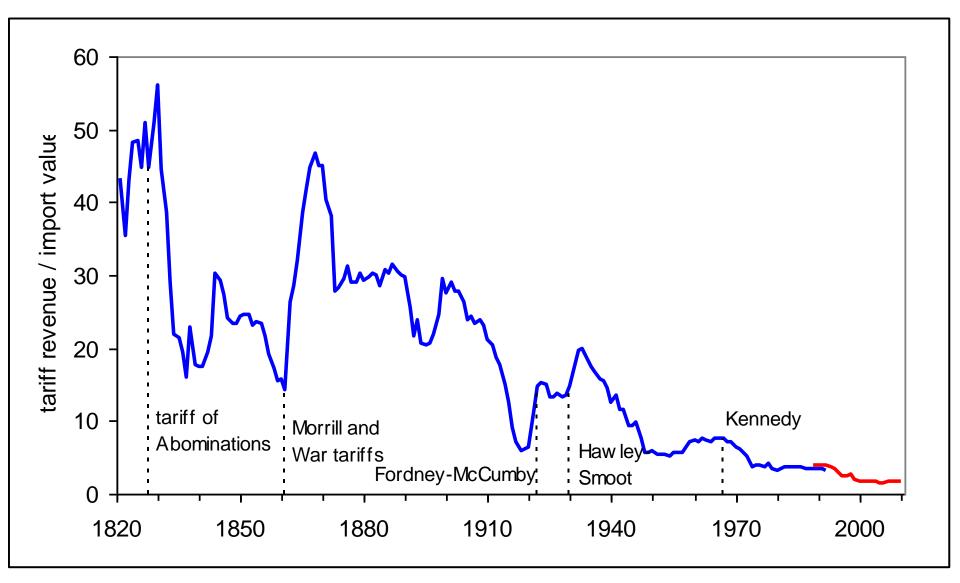
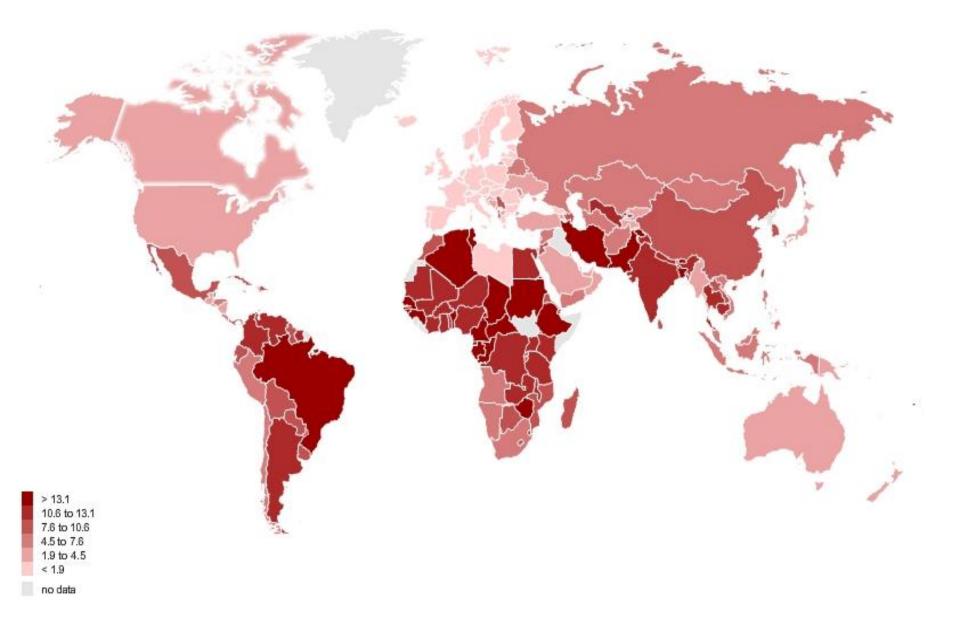


Figure 5.3 Applied tariff rate; simple mean, all products, 2010

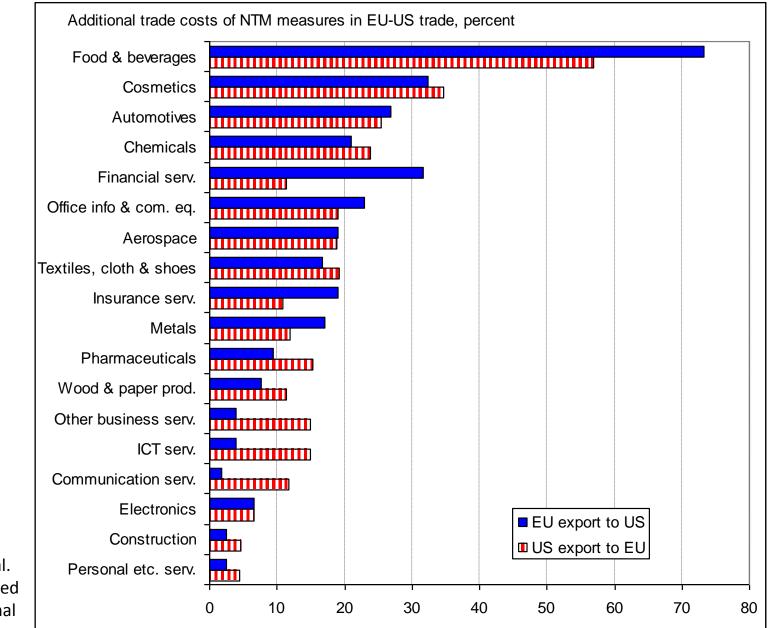


Source: World Bank eAtlas of Global Development; 2010 or latest available.

Non-tariff barriers

- Import quotas → only a certain amount of a certain commodity can be imported from a certain country in a year
- Differences in production standards (e.g. electric plugs, GSM network, etc)
- Differences in product requirements (e.g. safety standard of cars, OGM in food products, etc)
- Labelling requirements (e.g. need to list all ingredients in food products)
- Anti-dumping laws (e.g. ban import from 'exploiting' countries)

Figure 5.9 Additional trade costs of NTM measures in EU-US trade; 2010, percent



Source: Berden et al. (2010); sectors sorted by average additional trade costs.