

EC3355: International Trade

Trade issues

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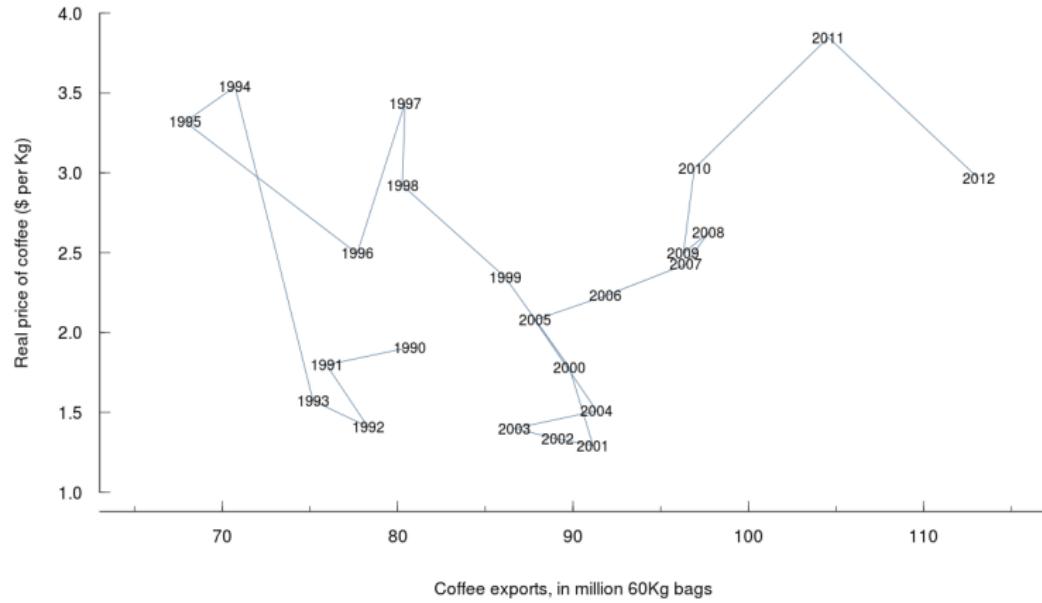
Last week

- ▶ Natural resource dependency
 - ▶ Prebisch-Singer hypothesis predicts deterioration in terms of trade
- ▶ Import-substituting industrialisation
 - ▶ Justified by Prebisch-Singer hypothesis and infant industry argument
 - ▶ Positive effect petered out over time, lead to disconnect with rest of the world
- ▶ Trade liberalisation
 - ▶ Large average tariff reduction since the 1980's, evidence for contribution to development is mixed
- ▶ Export-oriented industrialisation
 - ▶ Popular in East Asia, little results in Latin America
 - ▶ Unsure whether it contributed to development
- ▶ Effect of trade on development
 - ▶ Some evidence that trade contributes to development but largely driven by India and China

Last week

Fluctuations in coffee exports between 1990-2012

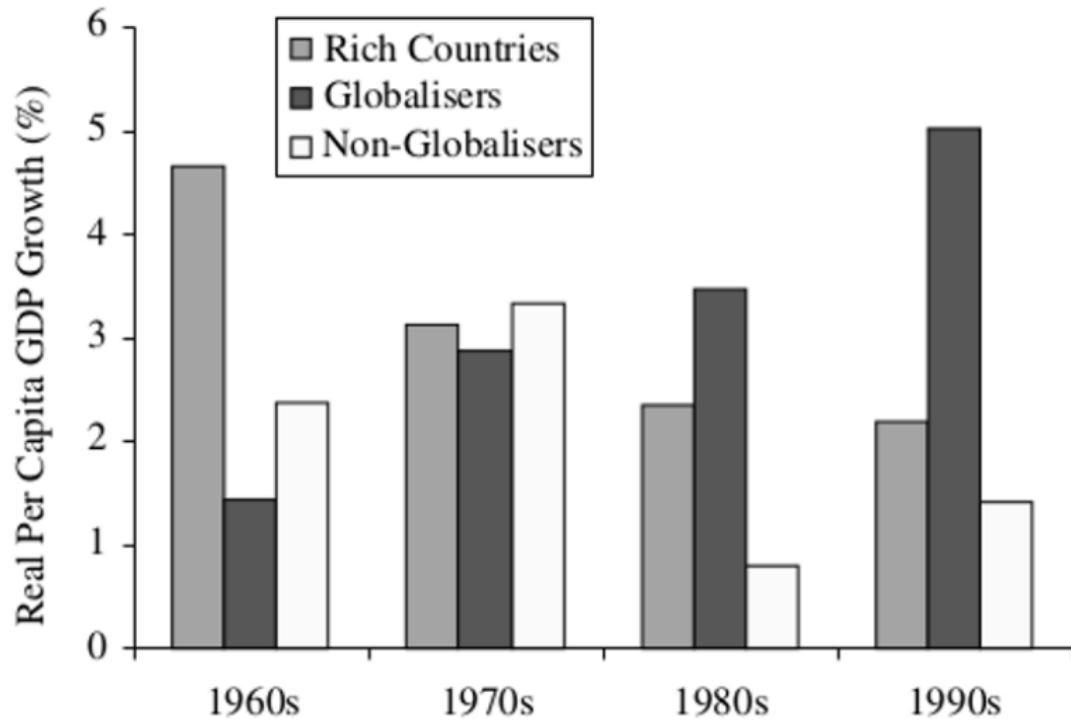
Source: *Global Economic Monitors, International Coffee Organization*



Last week

Real GDP per capita growth

Source: *Dollar & Kraay, 2004*



Today

- ▶ Economic arguments against free trade
- ▶ Effects of absence of trade
- ▶ Income inequality
- ▶ Labour issues
- ▶ Trade and the environment

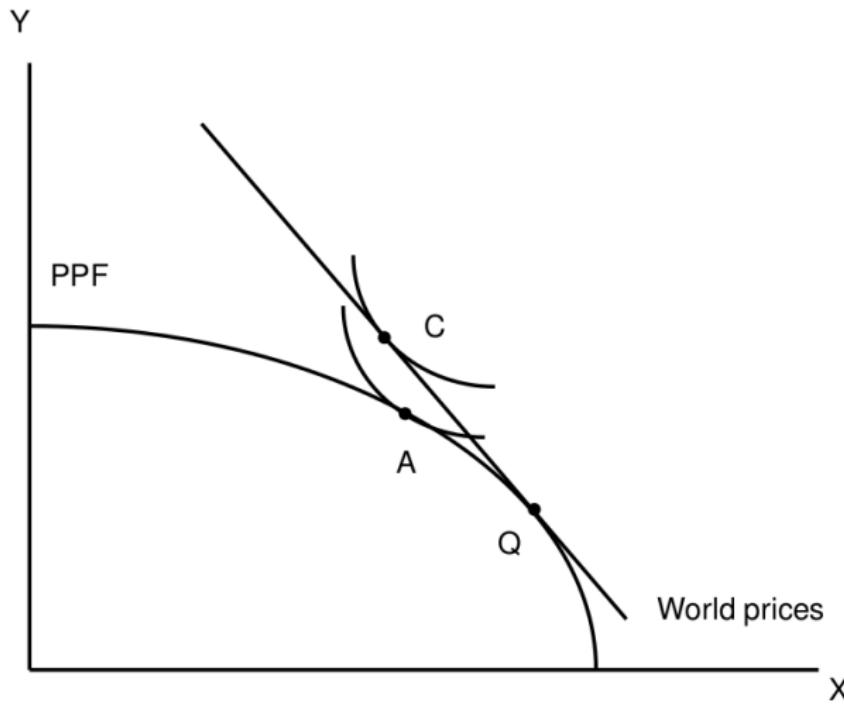
Economic arguments against free trade

Recap: arguments for free trade

1. Classical gains from trade
2. Trade policy often captured by special interests
3. Trade policy causes rent seeking distortions

Economic arguments against free trade

Classical gains from trade



Economic arguments against free trade

1. Optimum tariff
2. Domestic market failure

Economic arguments against free trade

Terms of trade argument for a tariff

- ▶ Large country can affect its own terms of trade
 - ▶ The more it exports, the lower the price of exports relative to imports
- ▶ True costs of imports are higher than its markets price
 - ▶ Volume of additional exports required to buy unit of imports reflects both the direct cost and the deterioration of terms of trade
- ▶ Creates incentives to distort production
- ▶ Optimal policy would be to drive a wedge between world relative prices and domestic prices
 - ▶ Conditional that foreigners don't react

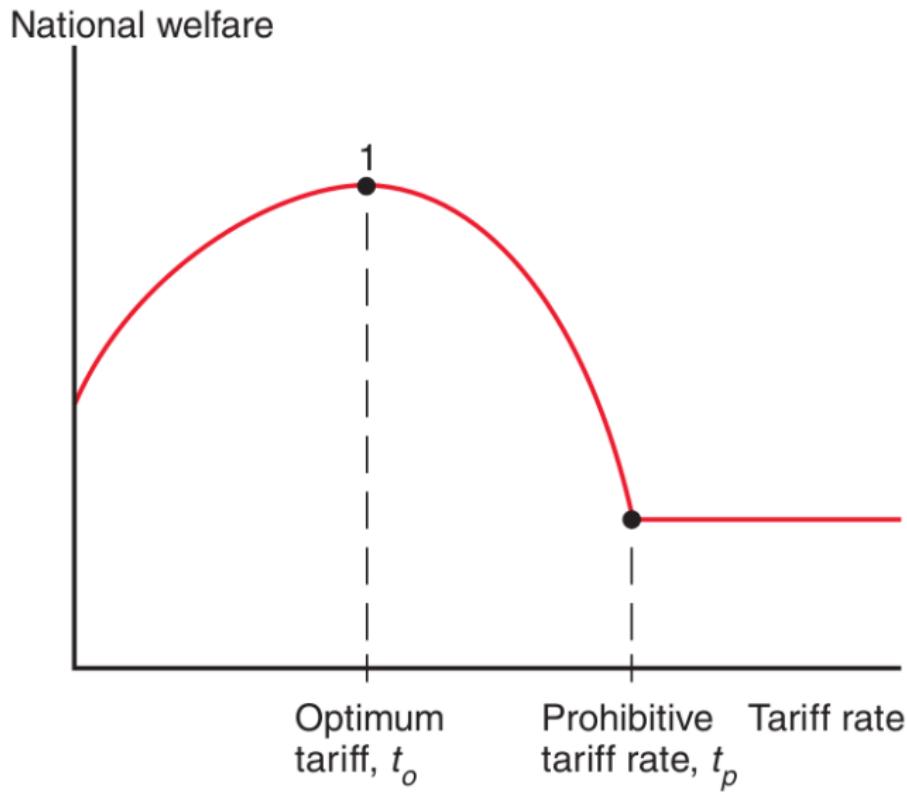
Economic arguments against free trade

Terms of trade argument for a tariff

- ▶ For a sufficiently small tariff the ToT gains outweighs the distortion loss
- ▶ There is always an optimum tariff that is positive
- ▶ Saudi Arabia and other oil exporters have used this strategy

Economic arguments against free trade

Optimum tariff



Economic arguments against free trade

Terms of trade argument for a tariff

- ▶ There are some limitations
 - ▶ Most small countries are price takers for both imports and exports
 - ▶ Large countries could use it but it most probably would lead to retaliation
 - ▶ Theoretically true, practically not very useful

Economic arguments against free trade

Domestic market failure: London fog



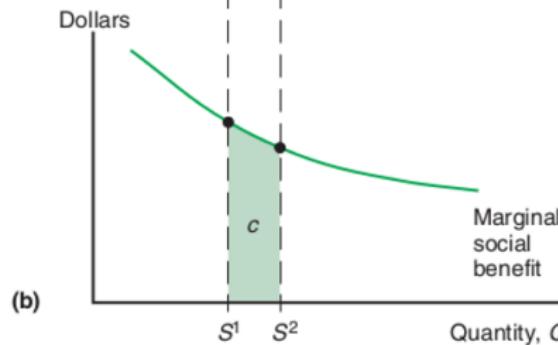
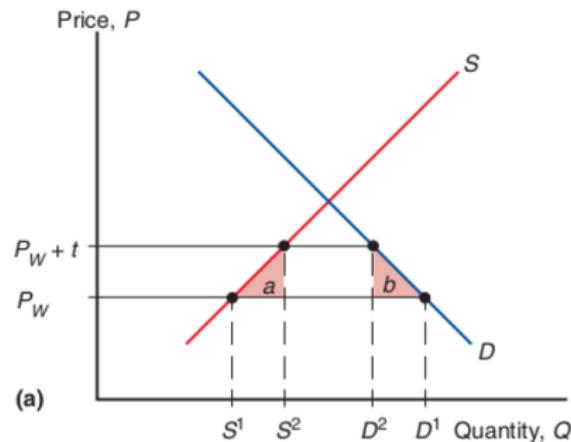
Economic arguments against free trade

Domestic market failure

- ▶ In general: Some market in the country isn't doing its job properly
 - ▶ Labour market isn't cleared
 - ▶ Capital market isn't allocating resources efficiently
- ▶ Particularly relevant to developing countries

Economic arguments against free trade

Domestic market failure: Marginal social benefit



Dumping

- ▶ Due to trade costs markets aren't perfectly integrated
- ▶ Firms can set different prices in different markets for same product
- ▶ Firm with high marginal costs will set lower markup over marginal cost
- ▶ Exporting firm will lower markup for the export market

Dumping

- ▶ Let P and P^* be the prices the firm sets on the domestic and foreign market
- ▶ Firm faces higher marginal costs in export market: $c + t$
- ▶ Prices are:

$$\text{Home : } P - c$$

$$\text{Foreign : } P^* - (c + t)$$

- ▶ This implies that the export price is lower than the domestic price

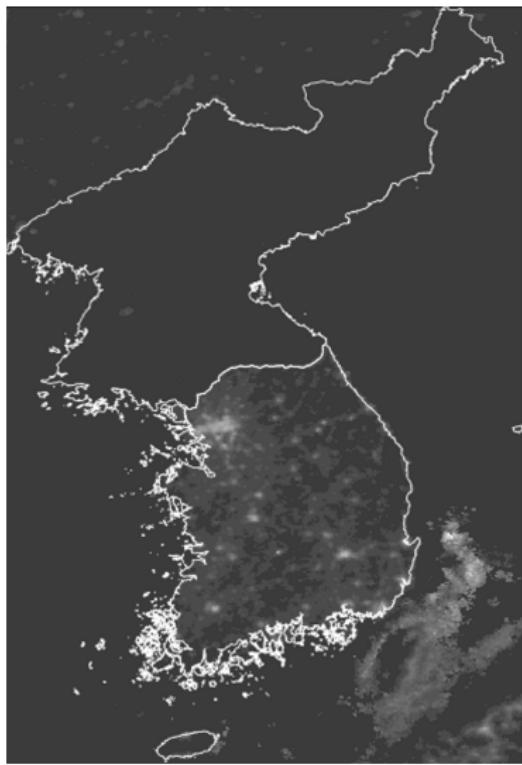
$$P^* - t < P$$

Dumping

- ▶ Natural firm behaviour, still considered as unfair
- ▶ Antidumping laws can be used to discriminate against exports in market
- ▶ Dumping can be harmful to domestic producers
- ▶ Some dumping facilitated by subsidy programs (e.g. CAP)
 - ▶ Agriculture contributes around 40% to GDP in Ethiopia
 - ▶ Country still has to import food
 - ▶ Fastest growing agricultural sector is flower production

Absence of trade

North and South Korea (*Source: NOAA*)



Absence of trade

- ▶ Measuring benefits of trade is difficult
- ▶ In theoretical model gains are measured by comparing autarky with free trade equilibrium
- ▶ Problem in real world is that autarky equilibrium is never observed
- ▶ Economists look for quasi-experiments

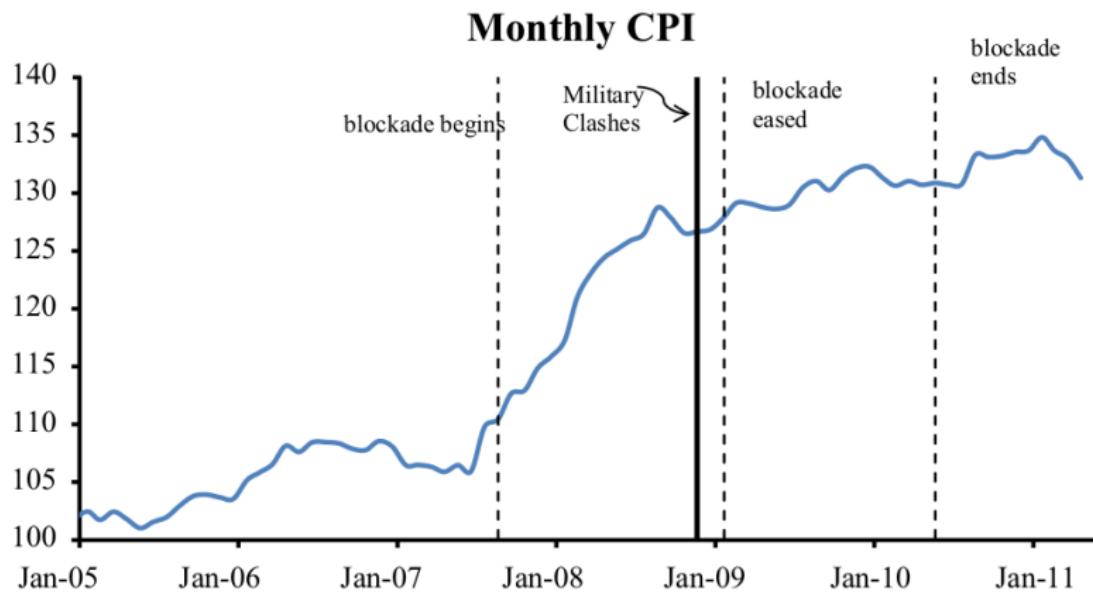
Absence of trade

Gaza blockade 2007-2010 (*Etkes & Zimring, 2015*)

- ▶ Gaza strip close to being autarky following Egyptian and Israeli blockade from 2007 till 2010
- ▶ Can compare this area with natural counterfactual economy: the West Bank
 - ▶ Two areas had similar trends in both prices and consumption
- ▶ Use household expenditure data to calculate welfare loss
- ▶ Use firm level date to examine economic mechanisms

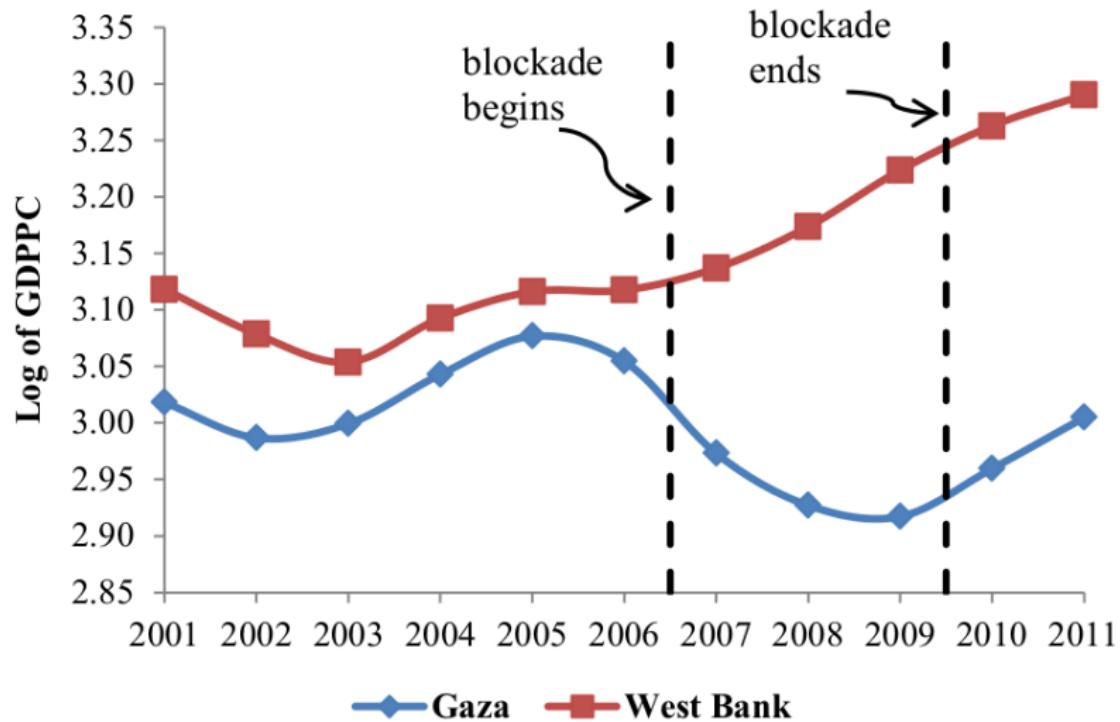
Absence of trade

Gaza blockade 2007-2010 (*Etkes & Zimring, 2015*)



Absence of trade

Gaza blockade 2007-2010 (*Etkes & Zimring, 2015*)



Absence of trade

Gaza blockade 2007-2010 (*Etkes & Zimring, 2015*)

- ▶ Average welfare loss was 14-27% compared to pre-blockade expenditures
- ▶ Wealthier households lose more
- ▶ Loss due to production adjustment as a result of the blockade

Absence of trade

Gaza blockade 2007-2010 (*Etkes & Zimring, 2015*)

1. Large reallocation of workers from manufacturing (-33%) to services (+24%)
 - ▶ Reallocation due to loss of access to world markets
 - ▶ Reallocation away from industries that exported their output or imported large share of inputs
2. Average worker's productivity, in terms of value added, declined by 20%
 - ▶ 36% decline in manufacturing
 - ▶ 0.6% decline in services
 - ▶ Overall decline result of loss of within industry productivity

Income inequality

Trade and income

- ▶ Trade liberalisation leads to increase in relative returns of abundant factor
 - ▶ Based on H-O model, and Stolper-Samuelson theorem in particular
- ▶ What should we observe in terms of poverty and inequality?

Income inequality

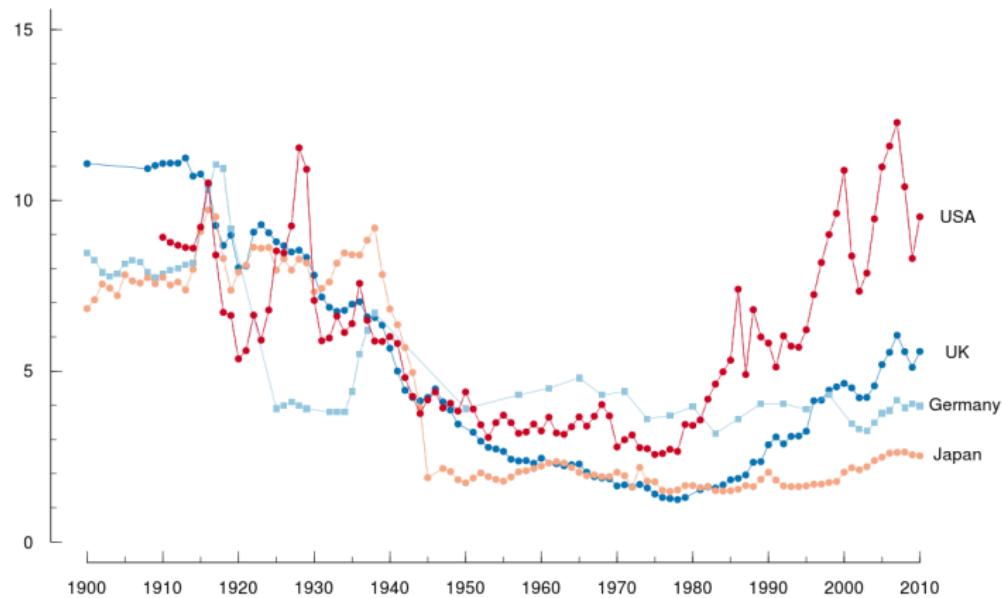
Trade model predictions on income inequality

- ▶ Capital gains in developed countries
 - ▶ More inequality in developed countries as capital owners get richer and workers poorer
- ▶ Labour gains in developing countries
 - ▶ Less income inequality in developing countries as workers see increasing wages

Income inequality

Top 0.1% income share in 5 OECD countries 1900-2010

Source: *Piketty, 2014*



Income inequality

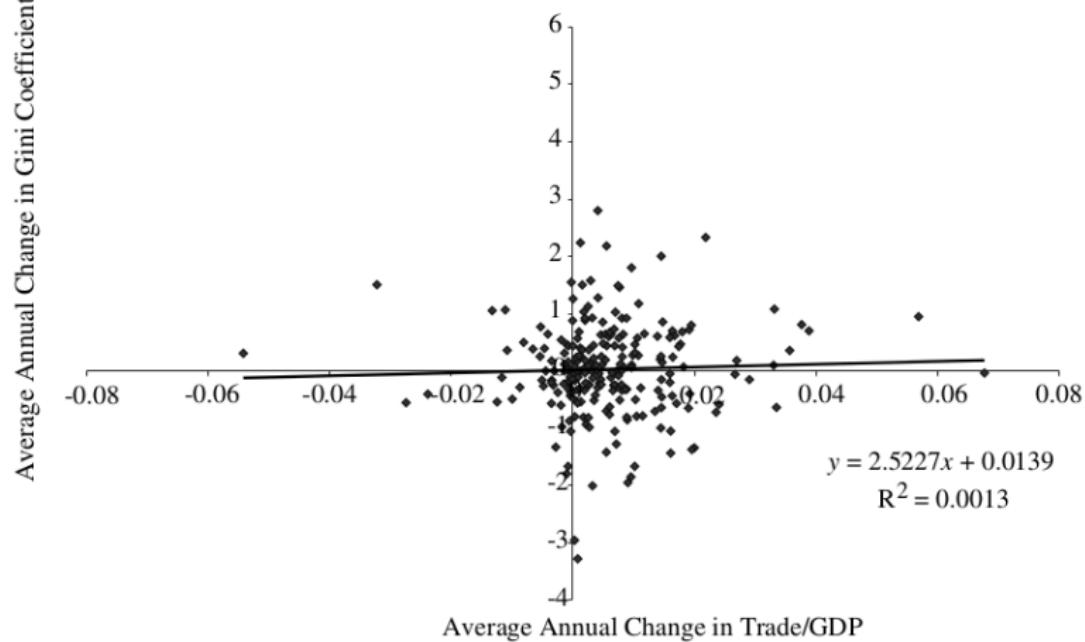
What does the literature say?

1. Globalisation has reduced inequality between countries, but not within countries
2. Wages of high-skilled workers in developing countries have increased, wages for unskilled labour have fallen

Income inequality

Trade and the Gini coefficient (*Dollar & Kraay, 2004*)

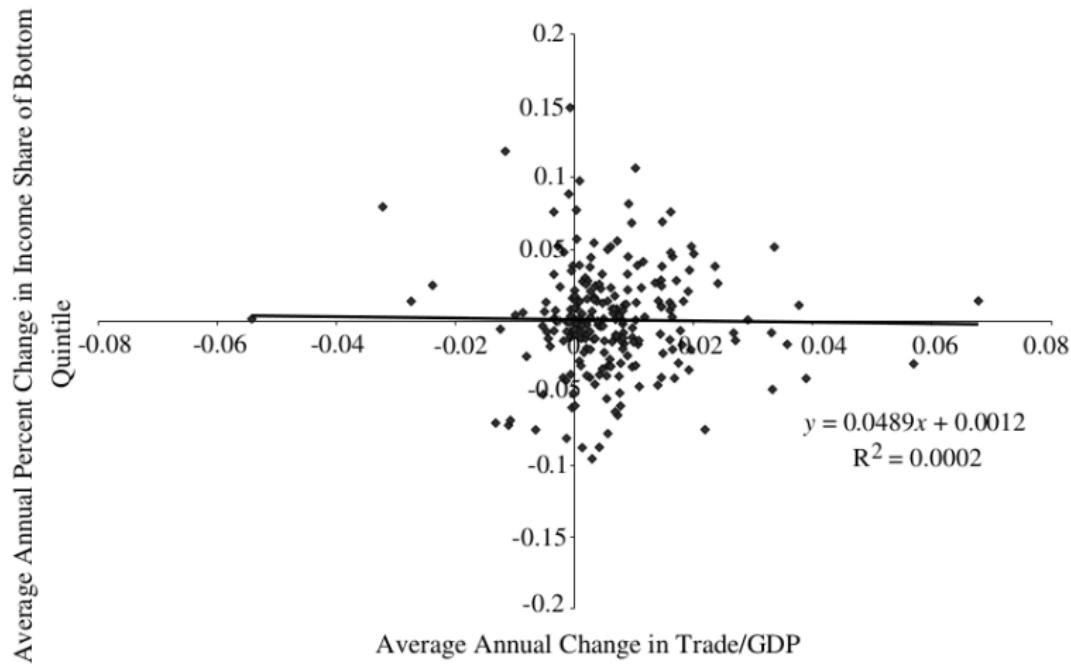
(a) Trade and the Gini Coefficient



Income inequality

Trade and the income share of the poor (*Dollar & Kraay, 2004*)

(b) Trade and the Income Share of the Poor



Labour issues

2013 Rana Plaza factory collapse, Dhaka Bangladesh



Labour issues

2013 Rana Plaza factory collapse

- ▶ Collapse of garment factory
- ▶ 1,129 fatalities, >2,500 injured
- ▶ Collapse blamed partially on conversion to industrial use
- ▶ Workers had to work in cramped spaces without proper safety measures
 - ▶ Safety costs money, which means that people have to pay more for their skinny jeans
- ▶ In response labour organisations, NGOs, and retailers signed the Accord on Fire and Building Safety in Bangladesh
 - ▶ Aimed at maintaining minimum safety standards in textile industry
 - ▶ Retailers don't check if firms comply

Labour issues

One of many labour strikes in China

Chinese Labor Strike: 5,000 Workers Strike At Factory Making Shoes For Nike, Timberland, Kenneth Cole; Police Dogs Deployed

By Angelo Young [@angeloyoung_](#) a.young@ibtimes.com on March 10 2015 3:32 PM EDT



Labour issues

Miners' strikes were a regular occurrence in 2014 in South Africa



Labour issues

Labour standards

- ▶ Labour standards refer to all issues that directly affect workers
 - ▶ Health and safety as in Bangladesh
 - ▶ Payment of housing allowance as in China
 - ▶ Minimum wage as in South Africa
- ▶ Global agreements on labour requires comparison of labour (and salary) standards across countries.

Labour issues

International agreement on labour standards

- ▶ Standards, especially wages, are generally not directly addressed in trade agreements
- ▶ WTO agreements do not deal with labour standards
 - ▶ International Labour Organisation seen as relevant body
- ▶ Labour standards should not be used for trade protectionism
- ▶ Economic advantage of low-income countries should not be questioned

Labour issues

International agreement on labour standards

- ▶ Internationally regulated living wage is controversial
 - ▶ Above-norm wage paid by foreign firms in developing countries
- ▶ Difficult to compare labour standards across countries
- ▶ Risk of increased unemployment as higher wages mean more labour supply and less demand
- ▶ Does not entail that other labour standards should be neglected

Labour issues

Basic positions

- ▶ Consumers and policy makers argue against sweatshop positions
- ▶ Labour unions seek improved labour conditions
- ▶ Economists and developing country representatives note that labour standards can be trade barriers in disguise

Trade and the environment

Theoretical effects of trade on the environment

1. Static, for a given level

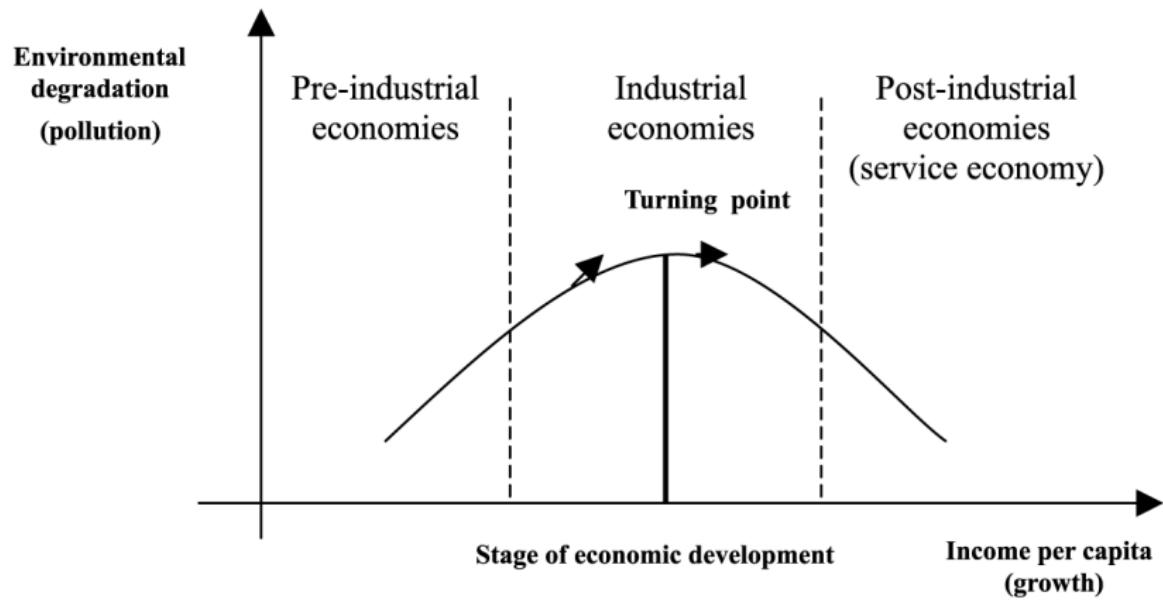
- ▶ Race to the bottom in national regulation
- ▶ Gains from trade such as increasing standards, consumer power, innovation

2. Dynamic, via income growth

- ▶ Larger scale of economic activity
- ▶ Shifts to cleaner techniques and composition of economic activity

Trade and the environment

Environmental Kuznets curve



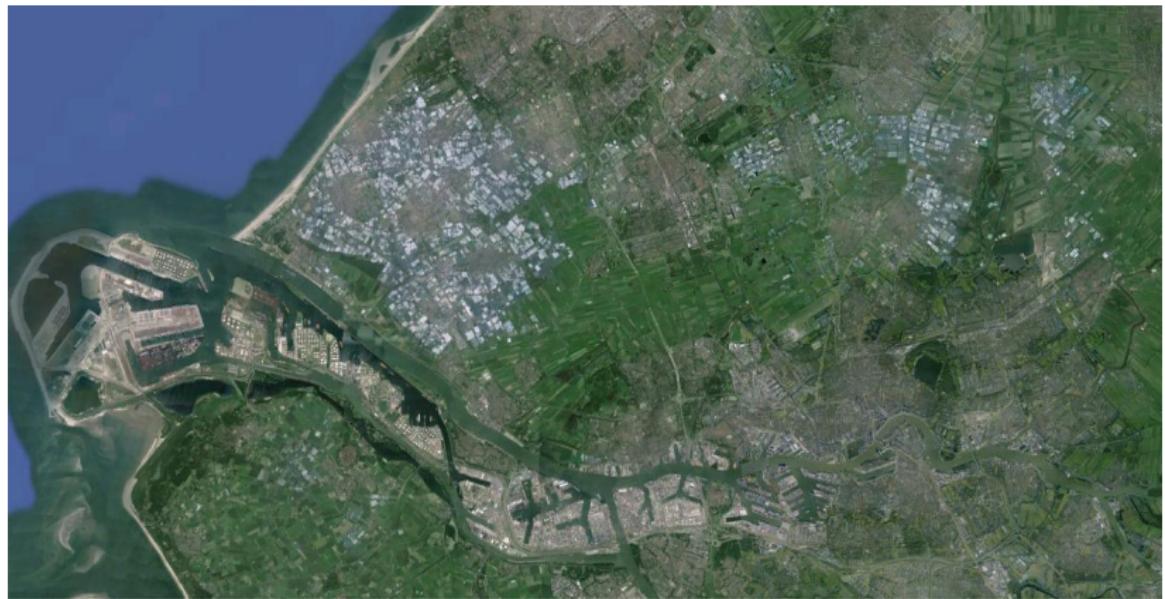
Trade and the environment

Concerns about effects of international trade

1. Increase in emissions due to transport of goods
2. Creation of pollution havens
3. Depletion of international natural resources due to lack of regulations

Trade and the environment

Alternative to transport would be to produce local



Trade and the environment

Pollution haven hypothesis

- ▶ Difference in environmental standards between developed and developing countries
- ▶ Developing countries can provide a pollution haven
 - ▶ Environmental standards are below their efficiency levels
 - ▶ Fail to enforce their standards
- ▶ Developing countries can choose not to enforce standards in order to attract FDI

Trade and the environment

Pollution haven hypothesis

- ▶ Low environmental standards follow theory of comparative advantage
- ▶ When pollution control costs start to matter for some industries in some countries, other countries gain comparative advantage in those industries

Trade and the environment

Testing the pollution haven hypothesis (*Based on Neumayer (2001)*)

1. Differences in environmental standards affect the allocation of investment flows
 2. Developing countries' production and exports have become increasingly pollution intensive
 3. Pollution-intensive industries flee the high-standards countries
- Empirically little evidence for pollution haven hypothesis

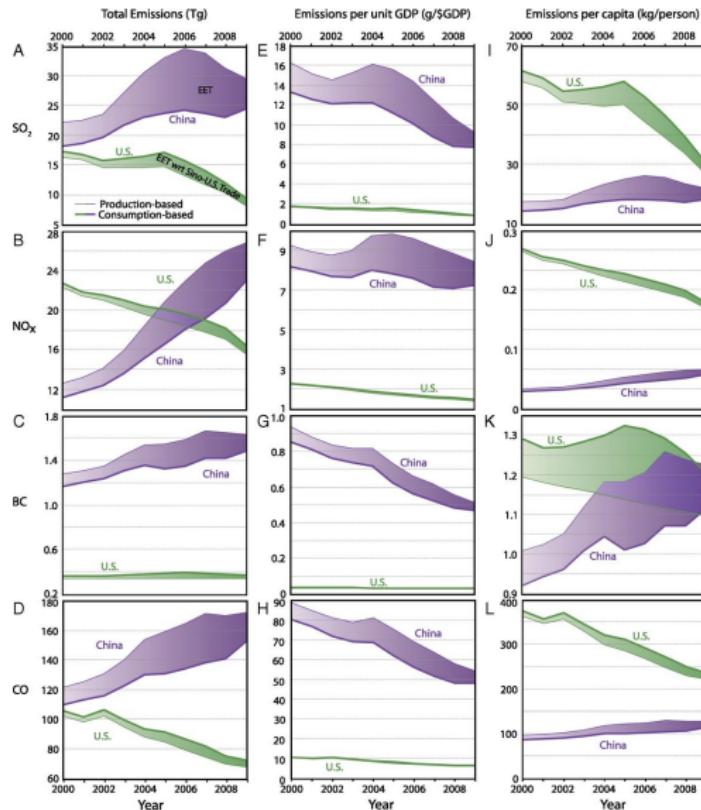
Trade and the environment

Probo Koala waste dump in Abidjan, 2006



Trade and the environment

Air pollutants embodied in Chinese trade between 2000 and 2009 (*Lin et al., 2014*)



Trade and the environment

"China's international trade and air pollution in the United States"

Lin et al., 2014

- ▶ International trade affects global air pollution
 - ▶ Redistribution of emissions related to production of goods and services
 - ▶ Altering the total amount of global emissions
- ▶ Study focuses on Sino-US trade
- ▶ Main result: Production of export goods contributes, at a maximum, to 12-24% of sulfate pollution over western USA on a daily basis
- ▶ US outsourcing of manufacturing to China might have reduced air quality in the western United States with an improvement in the east, due to the combined effects of changes in emissions and atmospheric transport

Trade and the environment

Tragedy of the commons, (Hardin, 1968)

The population problem has no technical solution; it requires a fundamental extension in morality.

- ▶ From the abstract (ecologists are always the optimists).

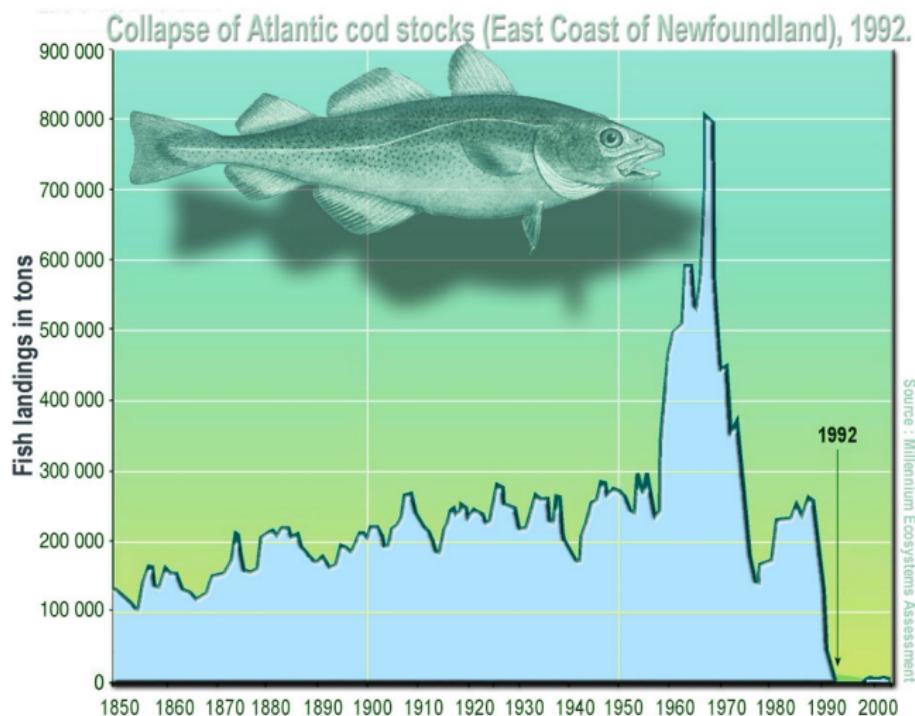
Trade and the environment

Tragedy of the commons: set up

- ▶ Initial phase
 - ▶ Pasture open to all
 - ▶ Expectation is that each herdsman will try to keep as many cattle as possible
 - ▶ This works as long as other factors keep population below carrying capacity of the land
- ▶ Social stability is reached
- ▶ Doomsday phase
 - ▶ Each herdsman will maximise utility by adding one more animal to herd
 1. Positive utility for herdsman is +1
 2. Negative component is overgrazing due to extra animal, fraction of -1 as it shared by all herdsmen
 - ▶ Unlimited increase in herd on a limited resource

Trade and the environment

Example of tragedy of the commons: Overfishing

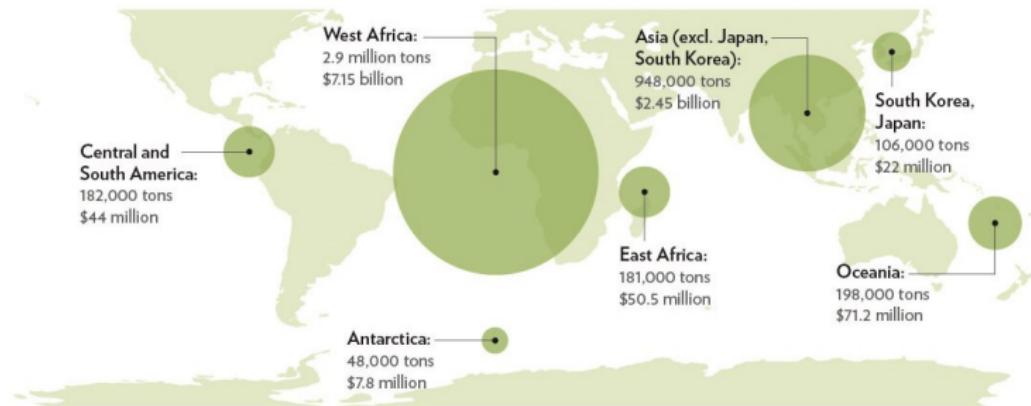


Trade and the environment

Chinese average annual catch per location, 2000-2011

Where Chinese Vessels Fish

Estimated average annual catch by region, in metric tons, 2000-2011



Trade and the environment

Food for thought for next week's seminar

Is oil a finite resource?