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# **International Economics**

## VI. Globalization, Economic Development, and the Environment

Leipzig University | May 16, 2024

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## VI. Globalization, Economic Development, and the Environment

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Pugel, *International Economics*, pp. 252-370



# 1. The Institutions Governing Trade

- Since WW2, international institutions oversee trade
- GATT (General Agreement on Tariffs and Trade) from 1947 to 1995
- WTO (World Trade Organization) since 1995
- Local institutions and agreements are also important: the EU and EFTA in Europe, NAFTA in North America, Mercosur in South America, ASEAN in South East Asia
- These are trade blocs and will be dealt with later



## Origins

- The victors of WW2 wanted to make sure that the world did not revert to the protectionism of the 30s
  - Protectionism seen (e.g., by the U.S. State Department) as a key source of the war
- An International Trade Organization (ITO) was planned
  - GATT was its “provisional” replacement

## Focus on Tariffs

- GATT – General Agreement on Tariffs and Trade
- Early rounds of negotiations quite successful – Geneva 1947, Annecy 1949, Torquay 1950-51, Geneva 1956, the Dillon Round 1960-61
- Only tariffs on manufactured goods reduced. Agricultural protection was left in place
- The Kennedy Round 1963-67, Tokyo Round 1973-79 and Uruguay Round 1986-94 were also successful. In Uruguay the successor to GATT, the WTO, was agreed



## Setup

- WTO – the World Trade Organization – created 1995, after Uruguay round
- Continued the work of the GATT in negotiating tariff reductions
- Set up a framework for dispute resolution between countries
- Work on reducing NTBs have been a focus of the WTO

## Problems with WTO

- A new form of protectionism introduced under the cover of “liberalization”:  
protection of “intellectual property”
  - Protectionism for established high-tech companies, usually in western countries
- The Doha Round (2001-08) broke down
  - Complaints from developing countries about intellectual property
  - Continued US and EU subsidies (including export subsidies) to agriculture
- The Trans-Pacific Partnership Agreement (TPP) of 2018 furthered IP in the Pacific



## MFN: Most Favoured Nation

- Members of the WTO (and GATT before that) committed to grant each other MFN status
- Members should be given the most favourable treatment accorded to any other nation

## Example

- Portugal and Great Britain agrees to grant each other MFN status
  - Portugal then reduces tariffs on imports from France
  - The same reduction applies automatically to Great Britain
- Exceptions: members of free trade areas and customs unions



## 2. The Economics of Trade Blocs

- Trade blocs are groups of nations that have agreed to favour trade with one another in one way or the other.

*Free-trade area:* members remove trade barriers among themselves

- Separate national barriers against trade with the outside world
- Example: EFTA

*Customs union:* members of a free-trade area agree on a common set of external barriers

- Example: the EU

*Common market:* members of a customs union allow full freedom of factor movement

- Example: EU again

*Economic union:* member countries unify all economic, fiscal and monetary policies



# Types of Trade Blocs

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Type of Bloc	Features of Bloc			
	Free Trade among the Members	Common External Tariffs	Free Movement of Factors of Production	Harmonization* of All Economic Policies (Fiscal, Monetary, etc.)
Free-trade area	✓			
Customs union	✓	✓		
Common market	✓	✓	✓	
Economic union	✓	✓	✓	✓

\*If the policies are not just harmonized by separate governments but actually decided by a unified government with binding commitments on all members, then the bloc amounts to full economic nationhood. Some authors call this *full economic integration*.





## It Depends

- If the formation of a trade bloc is a move away from full free trade
  - It reduces international division of labour etc.
  - No different from the imposition of trade barriers in one country
- If it is a move toward (regional) free trade
  - It leads each country to better exploit its comparative advantage

## Effects

- Trade creation
- Trade diversion



## Trade Creation

- Net welfare gains
- Economic integration leads to a larger total volume of trade
  - High-cost domestically produced goods in a member country are replaced by lower-cost imports from a member country

## Trade Diversion

- Net welfare losses
- There is a shift in product origin from a low-cost, non-member exporter to a higher-cost, member country producer

## Welfare Analysis

- the net effect of trade blocs depends on which effect is larger
- Gains from trade creation or losses from trade diversion?





## Example: UK and EU Car Market

- Japan is the cheapest supplier of cars at a price of £5,000. Before joining the bloc, the UK has a general tariff of £1,000 per car, leading to domestic prices of £6,000
- The UK joins the EU, tariffs against member countries eliminated
  - Germany can now export cars to the UK cheaper than the Japanese
- Two scenarios possible: A and B

### Scenario A – Trade Diversion

- Germans charge £5,500 per car
- There is a gain to British consumers ( $a + b$ )
- There is a larger reduction in government revenue ( $a + c$ )

### Scenario B – Trade Creation

- German cars cost only £5,100
- Gains in consumer surplus dwarf reductions in government revenue



## Welfare Problems

- Why consider lower government revenue a welfare loss?
- It is a coercive taking from the citizens - welfare-lowering
- How do we weigh it against increased consumer surplus?

## Gains From Trade

- Pattern of trade with a bloc suboptimal compared to full free trade
- It is still a more productive use of resources than would prevail in its absence
  - Costs are down to consumers and producers
  - Consumers benefit from higher real incomes
  - Producers benefit from lower costs of production



## Other Possible Gains

- The larger market can lead to economies of scale, leading to higher productivity
- More competition can reduce prices within the bloc
- New opportunities for profitable investments might emerge within the bloc



## Criteria for EU Membership

- Only functioning democracies
- Commitment to respecting human rights (as the EU understands them)
- Only market economies
- Adoption of EU rules and standards, the *Acquis communautaire*

## Effects of Membership

- Research indicates net gains from trade in manufactured goods, but a larger loss related to the CAP
- The net effect depends on unmeasured gains from competition, scale economies, etc.
- The adoption of EU standards can also impair a country's economy
- It now has to produce at higher costs to meet regulatory requirements



## History

- Free trade area between Canada, USA, and Mexico. Formed 1994
- Replaced by USMCA in 2018 (came into force 2020)
- NAFTA eliminated nearly all tariffs and some NTBs

## Effects

- A substantial rise in trade between the three countries
- Rules of origin are a burden on industry, however
- In general, the NAFTA rules are very complex
- USMCA made some cosmetic changes, more seriously added protectionist measures:
  - Rules of origin for cars: up from 62.5 to 75 percent for domestic value added
  - IP protection: copyrights extended, longer patent periods for biotech, industrial designs, pharmaceutical products
  - Labour standards: Mexico agreed to give more power to labour unions
  - Minimum wages set for car industry at initially \$16 per hour for at least 40-45 percent of cars manufactured in North America





## Harmonization

- Generally means enforcing high regulations
- Raising the costs to marginal producers, pricing them out
- Reducing diversity of products

## Intellectual Property

- An increasingly central protectionist measure

## Agricultural Policies

- New EU members have to accept the common agricultural policy
- Often means access to huge development funds
- But leads to distortions in agricultural development



### 3. Trade Policies for Developing Countries

- What can developing countries do to use trade to improve their economies?
- Exploit their comparative advantages!
- Developing countries usually have advantages based on natural resources, land, and less-skilled labour
- By adopting free trade, they would (probably) focus on exporting goods made with these factors – primary products and assembly of manufactured goods
- Historically, many developing countries have pursued policies of import substitution
  - Protecting domestic “infant industries” from international competition



# Growth in Developing Countries

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Region or Nation	Annual Growth Rate in per Capita GDP, 1990–2016	Per Capita GDP, 2016 (at international U.S. dollar prices)
<b>Industrialized Countries*</b>	<b>1.3</b>	<b>41,886</b>
United States	1.4	57,638
Germany	1.4	48,861
Australia	1.7	46,012
Canada	1.3	44,819
United Kingdom	1.5	42,656
Japan	0.9	42,281
<b>Developing Countries</b>	<b>3.1</b>	<b>10,837</b>
European and Central Asian countries	1.3	19,516
Latin American and Caribbean countries	1.4	15,211
Arab countries	1.6	16,727
East Asian and Pacific countries	7.2	13,840
South Asian countries	4.4	6,063
Sub-Saharan African countries	1.0	3,724
Saudi Arabia	0.7	54,417
Poland	3.6	27,383
Turkey	2.9	25,247
Russia	0.6	24,789
Chile	3.6	23,194
Romania	2.5	23,027
Mauritius	3.8	21,103
Mexico	1.1	17,275
Thailand	3.4	16,913
China	9.0	15,529
Brazil	1.2	15,124
South Africa	0.9	13,197
Indonesia	3.3	11,609
Ukraine	-1.2	8,270
Philippines	2.3	7,804
India	4.9	6,571
Vietnam	5.5	6,296
Nigeria	2.3	5,861
Pakistan	1.8	5,235
Ghana	2.8	4,292
Bangladesh	3.7	3,580
Tajikistan	-1.1	2,979
Uganda	3.1	1,819
Congo, Democratic Republic of	-2.1	802

\*Countries that are members of the Organization for Economic Cooperation and Development.

Note: Measures of gross domestic product per capita adjusted for purchasing power parity (at international dollar prices) are better than the often-cited estimates of average dollar incomes based on exchange-rate conversions. The purchasing power parity estimates reflect the ability to buy a broad range of goods and services at the prices prevailing in each country, whereas using exchange rates to convert other-currency values into U.S. dollars misleads by reflecting only the international prices of goods that are heavily traded between countries. As a rule, comparisons based on exchange-rate conversions overstate the relative poverty of low-income countries by failing to reflect the cheapness of their nontraded services. For more on purchasing power parity, see Chapter 19.

Source: World Bank, *World Development Indicators*.



- Focus on exporting primary products
  - The comparative advantage, free-trade approach (usually)
- Import-substituting industrialization
  - Basically, the infant industry argument
  - A failure everywhere it has been tried
- International cartels to raise prices
  - OPEC is the most prominent
  - Cartels are hard to maintain and depend on a specific configuration of international demand
  - Usually ends up serving special interests – not society as a whole
- Encouragement of new industries for export
  - How does the government know what will be successful?



# Is Exporting Primary Products a Trap?

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## The Worry

- A focus on exporting primary products will not lead to sustainable growth
- It is a version of the immiserizing growth question treated previously
  - Falling relative prices cause a worsening of the commodity terms of trade, but not necessarily of the income terms of trade
  - If demand is *inelastic*, the income terms of trade also worsen
  - If demand is *elastic*, or if the demand *schedule* increases (e.g., due to increasing population), then the result will be an increase in the income terms of trade

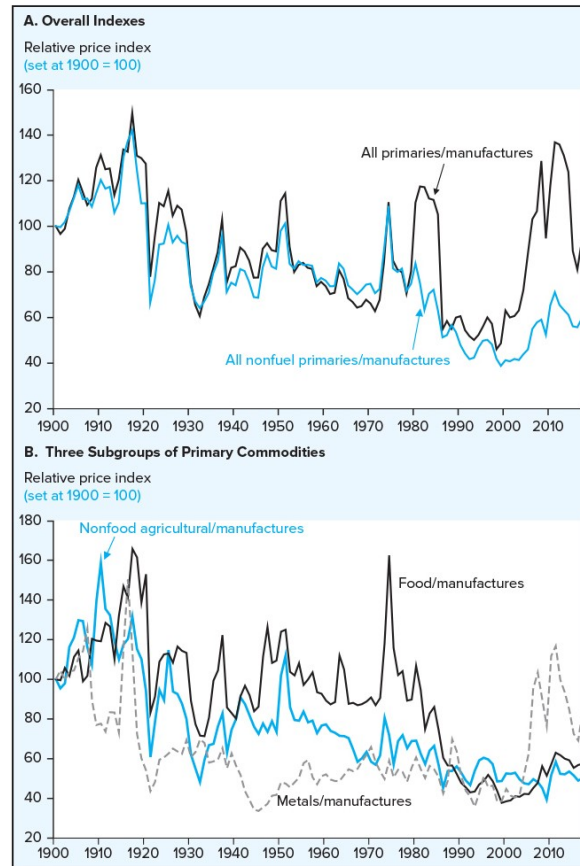
## A Real Problem?

- Perhaps relevant in some lines of production
- Free trade is the best way (absent capital flows) of generating the capital necessary to invest in other lines of production
- Free trade will most quickly lead to the necessary capital accumulation
- Hernando de Soto (2000), *Mystery of Capital* argues for the importance of capital



# The Relative Price of Primary Products, 1900-2017

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Sources: Grilli and Yang (1988), updated using information on prices of primary products from International Monetary Fund, *World Economic Outlook Database*, April 2018, and information on the unit values of manufactured-good exports from Pfaffenzeller et al. (2007), and United Nations Commodity Trade Statistics, *International Trade Statistics Yearbook*, 2016.



## Free Trade and Capital Is Key

- What keeps some nations poor is the lack of capital
- Free trade allows entrepreneurs to focus on the comparative advantage
- This quickly generates capital for domestic investment

## Other Necessary Conditions

- Other regulations are needed for capital accumulation
  - Secure property rights and freedom of contract
  - Low and certain taxes
  - Commercial freedom/internal free trade
- Capital accumulation is more important than technical knowledge
  - You just need time to study techniques and import advanced machinery – both require capital



## “Fair Trade”

- Private organizations have emerged trying to make trade with developing countries “fairer”
- They certify producers (usually primary producers) according to specific criteria
- The Fair Trade label is the most well-known
  - Fair Trade has been critiqued e.g., by Mohan (2010)
  - “Fair” is an ethical judgment – here we simply ask whether it leads to economic development

## How It Works

- Farmers have to adhere to certain standard, be members of cooperatives that distribute the premium
- Fair trade can create a caste system in the developing countries
  - Those inside the system and those outside it
  - Wealth and power are accumulated based on arbitrary criteria, not on supplying consumers
- Fair Trade enforce higher wages and labour standards
  - Fewer labourers are paid a higher wage
  - This will create an “aristocracy” of privileged workers and depress wages in other industries
  - Producers may also skirt the rules, e.g., by avoiding hiring full-time workers at all





## 4. Trade and Successful Development

### Examples of Successful Development

- The UK in the 18<sup>th</sup> and 19<sup>th</sup> century
- Most of western Europe a little later (post-Napoleonic wars)
  - Examples of trade focused on manufactured goods (UK, Germany)
  - Agricultural products (Denmark)
- In recent decades, economic development has been centred in Asia



# The Asian Miracle(s)

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- East Asian countries have experienced high growth by focusing on their comparative advantages. This was primarily in manufactured goods

## The Four Asian Miracles

- Japan after WWII rapidly grew until the late 1980s. It now has per capita income comparable to western Europe, USA
- From the 1950s on the smaller “tiger” economies of Hong Kong, Taiwan, South Korea and Singapore
- From the 1980s rapid growth began in Malaysia, Thailand, Indonesia, Philippines
- China from 1978, accelerating in the 90s
- All these countries focused on exports where they were the most (comparatively) efficient



## Similar Patterns of Growth

- First trade focused on mass-producing cheap manufactures
  - Based on the comparative advantage of cheap labour
- Then there was a shift to more capital-intensive, high-tech products
  - As capital accumulated and wage rates rose
- A flow of investment into their poorer neighbours as these opened up
  - E.g., from Hong Kong into China
- Nations developed special advantages in some sectors
  - E.g., Singapore became an important shipping hub

## Common Features

- Openness to trade, although only Hong Kong is completely free
- Security of property rights made investment attractive



## 5. Trade and the Environment

### Increasing Concerns about Environment

- Can we say anything about the environmental consequences of trade?
- Environmental problems are usually what economists call externality problems
  - Someone else bears (part of) the costs of productive activities
- As trade expands, increased production and consumption can lead to more such externalities
- Wealthier populations may also demand increased environmental protection
  - Especially in the west that people are concerned, the Chinese don't seem to care



## The Kuznets Curve

- The curve shows the relationship between economic development and inequality
- As an economy grows, there will at first be a tendency for increased inequality, but only up to a certain point
- After that, increased growth will be accompanied by decreasing inequality

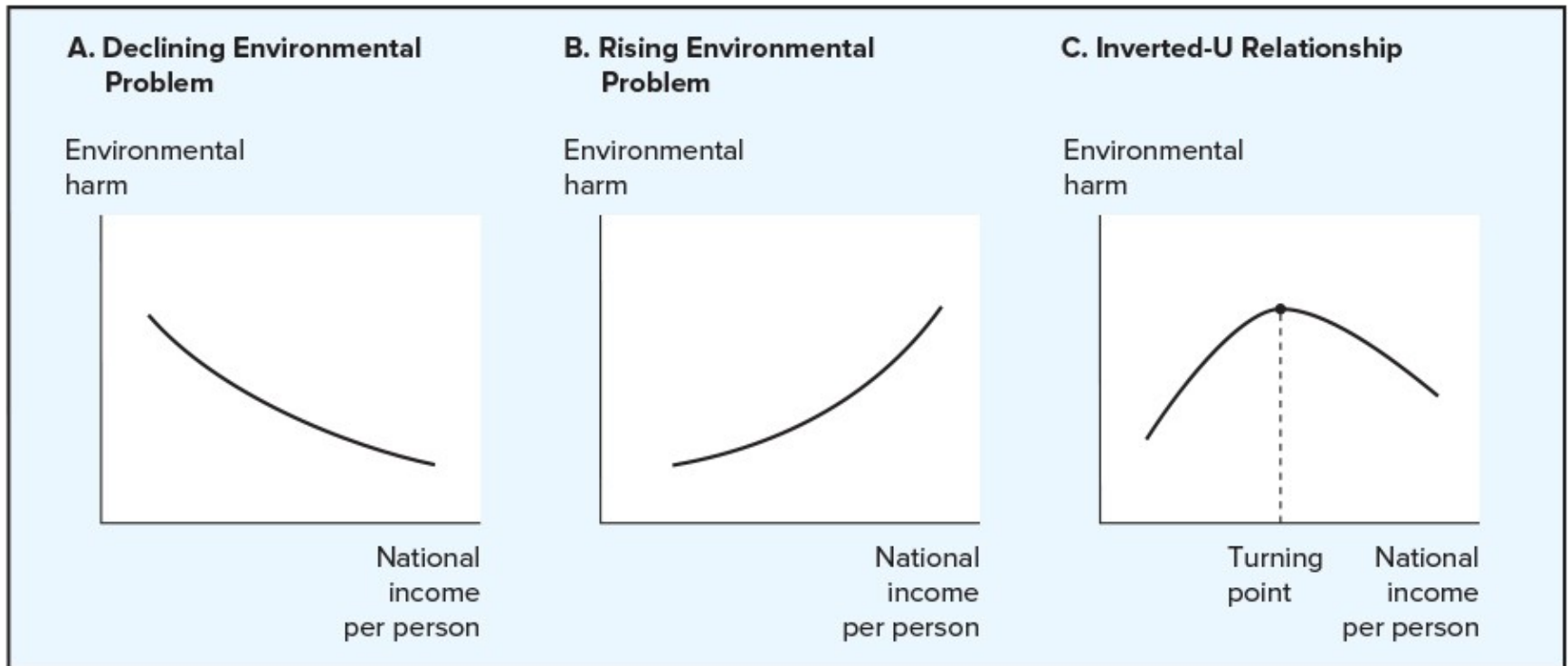
## The Environmental Kuznets Curve

- The same relationship has been hypothesized for environmental concerns
- Poor people don't care (much) about environmental concerns
  - They want to stop being poor
  - They therefore have no problems with potential pollution from industry
- Once people get richer (perhaps the next generation), they start to pay attention to environmental concerns, real and imagined
  - Industrial practices that were previously acceptable are now outlawed
- Environmental concerns, in other words, is a luxury good



# The Environmental Kuznets Curve

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Source of examples: Edward B. Barbier, "Introduction to the Environmental Kuznets Curve Special Issue," *Environment and Development Economics* 2, no. 4 (December 1997), pp. 369–81.



# The WTO and the Environment

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- The WTO has been accused of being anti-environment, or of neglecting environmental concerns
- However, the WTO is a trade organization
  - They are only concerned with environmental regulations insofar as these may be cover for protectionism
  - Environmental rules cannot be designed to only target importers, for instance
- So long as rules apply equally to all, and are aimed at solving a demonstrable environmental goal, the WTO has ruled in favour of them



# Prohibiting Trade in Protected Species

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## The Convention on International Trade in Engendered Species (CITES)

- Bans or sharply limits trade in species that are deemed to be endangered
- Also known as the Washington Convention, entered into force 1975

### Consequences

- Does this help protect the species? Economic reasoning suggests that the answer is in the negative
- If you prohibit trade in a product, demand for it doesn't go away
  - Legitimate sources of supply disappear
  - Price skyrockets, making illegal trade profitable
- Trade in endangered species is no different from other prohibitions
  - These prohibitions clearly don't work
  - Thriving black markets in contraband species, illegal firearms, drugs...





# How to Protect Endangered Species?

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## Alternatives

- An effort could be made to reduce demand, e.g., by inventing substitutes
- Often endangered species are also simply not demanded
- They are endangered because they are a pest – e.g., dangerous animals
  - Shouldn't foreigners interested in preserving such animals somehow compensate the locals? They have the cost of dealing with them, after all

## The Ownership Solution

- Legalize private ownership to make economic use of endangered species possible
- Private ownership of elephants, lions, etc., and the savannas where they roam
  - The owners will have a real stake in protecting them
  - They can earn income from using them and own the capital value
- Prohibition of trade is a step in the opposite direction, detrimental to people and animals



## The Tragedy of the Commons (Hardin 1968)

- The oceans are free to all comers
- Everyone can fish the fish stocks of the planet
- No one has a clear economic interest in the capital value of the fisheries

## Solutions

- Property rights: make the resource in question someone's private property
  - They would have an interest in maintaining its capital value and not deplete it
- In the case of the oceans, it is not clear how this could be done
  - Coastal waters can more easily be privately owned
  - Here we see a rise in *aquaculture*, which increases the yield of ocean resources (e.g., salmon from Norway and Chile)
- Elinor Ostrom (1990) has shown that informal governance structures can mimic this outcome, even in the case of oceans
- So long as the group in control can exclude outsiders, they can manage the resource *as if* it was their private property



## “Normal” Pollution

- Not really an international econ problem, the general theory of externalities
- Two approaches: “Pigovian” taxes and property rights

## Pigovian Taxes

- Tax a polluting activity to make private actors internalize social costs

## Problems with Pigovian Taxes

- How can the government identify the social costs from any activity?
- Pigovian taxes limit externalities, they do not eliminate them
- People still suffer from the polluting activity
  - How can a bystander claim that this suffering is acceptable?
  - Simply because the polluter pays for the privilege to pollute?



## Pollution and Property Rights

- Pollution is a problem of aggression against property
- or a failure to allow property rights over scarce resources

### Example

- When e.g. a river is privately owned, the owner can demand compensation from a polluter
- And more: he can insist that he stops all future pollution (Rothbard 1982)
- The polluter maybe “was there first”, i.e., the polluted resource was unowned when he started production
- In that case, he has acquired the “right” to pollute

### Inefficient and Prohibitive?

- Higher costs of pollution not inefficient
  - Limiting pollution is the highest-value use the owner has for the resource
  - The owner is free to allow pollution, e.g., against payment of a fee
  - We cannot as outsiders say that this somehow reduces welfare – it demonstrably doesn’t
- Even when pollution crosses borders there is no reason to think property rights cannot work
  - There are international courts, courts of arbitration, etc., that deal with such matters
  - If polluter is somehow immune – if property is not respected – can he pollute at no cost to himself



## Not Only a Negative Externality

- Many countries may become much more habitable
- The land more fertile and so on, if temperatures rise slightly
- GW is usually seen as a negative – but a realistic assessment must count also positive consequences

## Proposed Solutions

- It is not clear that the proposed solutions – restrictions on carbon dioxide emissions – will achieve the goal of limiting temperature rises, or do so at acceptable costs
- Dawson (2013) has argued that, despite seeming problems, it is possible to extend the property rights approach to deal also with CO<sub>2</sub> “pollution”:
  - Someone must prove that emitting CO<sub>2</sub> negatively impacts his person or property
  - Then, courts will order damages to be paid, prohibit further pollution
  - There will be a huge interest in assessing the evidence correctly – and in adjusting, stopping pollution immediately



## 6. Migration

### Definition

- The movement of people across borders
- There are both economic and social consequences from migration

### Economic Consequences

- Looked at purely as a factor of production, workers will move to where they expect to be paid the highest wages
  - Free immigration will equalize wage rates throughout the world
  - Free migration will result in the optimal combination of factors of production and increased productivity



## Costs

- Workers may prefer to remain in their home country due to national attachment
- The receiving country may also suffer costs from immigrants

## The Factor Price Equalization Theorem and Migration

- Free migration is not necessary for wages to equalize globally
  - Only requirement: free trade
  - Some land factors may be used sup-optimally



## History of Migration

- Mainly from land-poor to land-rich countries – from Europe and Asia to the Americas
- Most of this land was unowned and unused, the result was clearly a net benefit to all
  - Higher wages and greater production from more extensive division of labour

## Politics, Benefits and Costs of Migration

- When all land is privately owned, migration can only happen “by invitation”
  - Migrants are welcomed in the receiving country by hosts
  - The costs of migration are fully born by migrants and hosts
- Governments intervene to both restrict and subsidize migration
  - They only allow immigrants from some countries and for some purposes
  - They subsidize immigration by socializing the costs, directly and indirectly
- Government-controlled migration creates unnecessary conflict
  - It imposes burdens on some (e.g., taxpayers)
  - It benefits others (e.g., corporations can now hire workers at lower wages)





## 7. Summary

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1. Trade blocs lead to patterns of trade that are not as optimal as free trade, but they still lead to greater productivity
2. Developing countries would gain from adopting free trade, even when their exports are primary products
3. East Asian countries are examples of free trade and private property rights leading to very productive, capitalistic economies
4. Some are concerned over environmental impacts of trade. However, these concerns are exaggerated. Prohibiting trade does not solve problems of species going extinct or overuse of resources
5. Free migration would be optimal, but it is necessary that it is not subsidized to favour some over others. If not, then social conflicts can easily be the result
6. Alleged problems from trade virtually always are really problems of a lack of respect for property rights and freedom of contract and association



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