Economics of Trade

Presentation to Kosovo Trade Officials

May 2010

USAID
FROM THE AMERICAN PEOPLE

FORECAST

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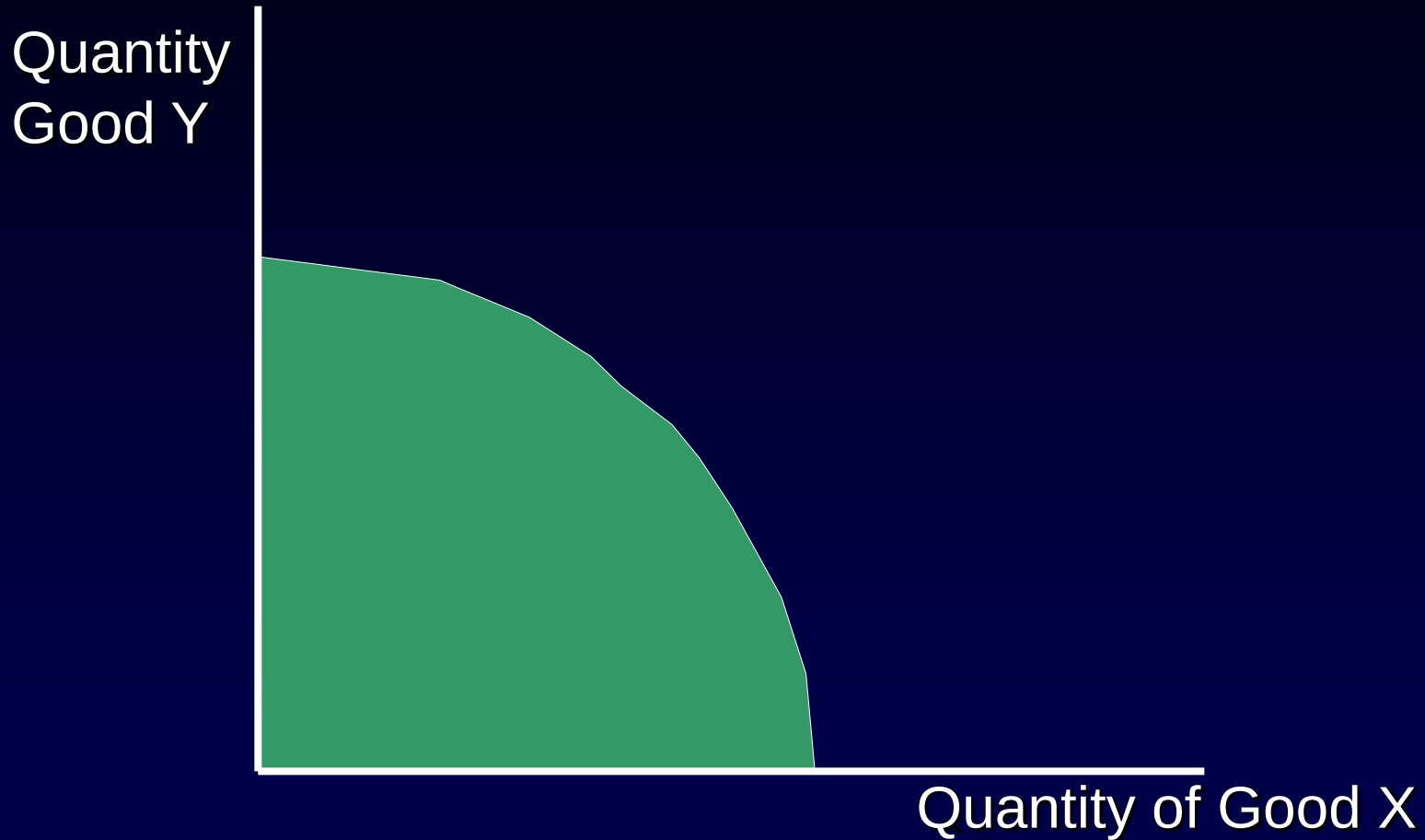
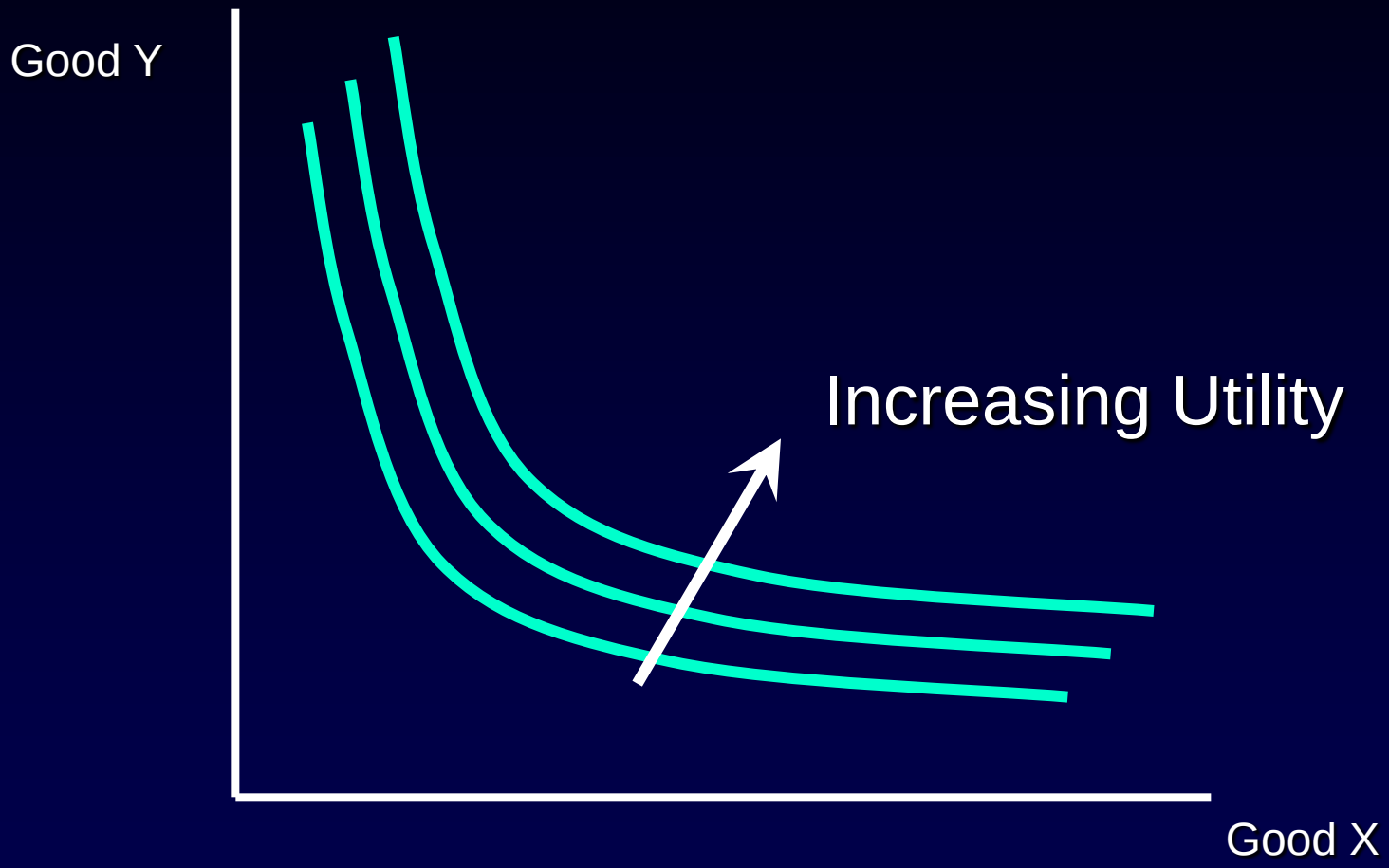
Overview

- Gains from Trade
  - Traditional static analysis
  - Economies of scale/ desire for variation
  - X-efficiency
- Trade policy instruments & techniques
  - How we analyse
  - Instruments & Techniques
- Analysis
  - CGE & Gravity models

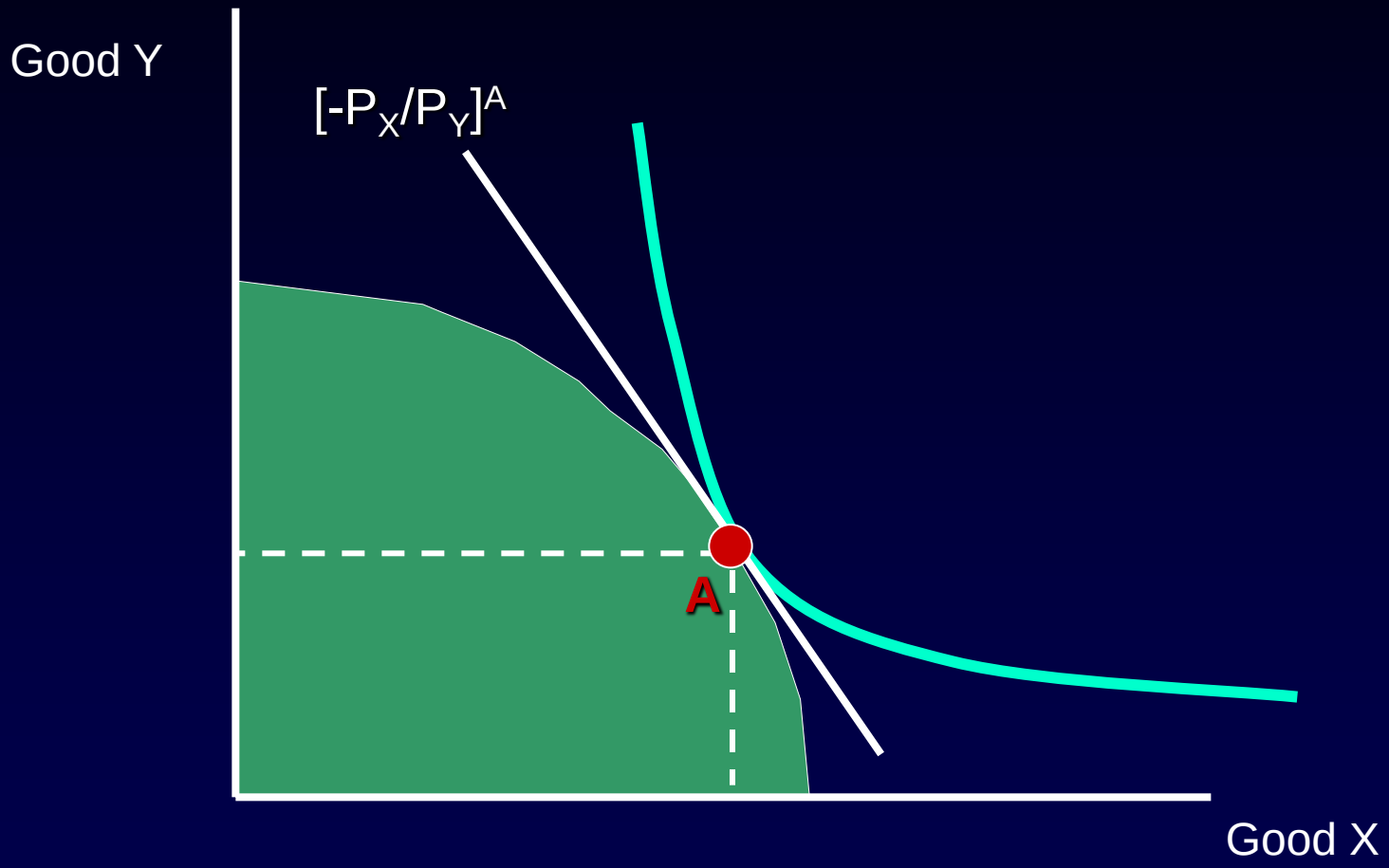
Production Possibility



Indifference Curves



Kosovo with no trading



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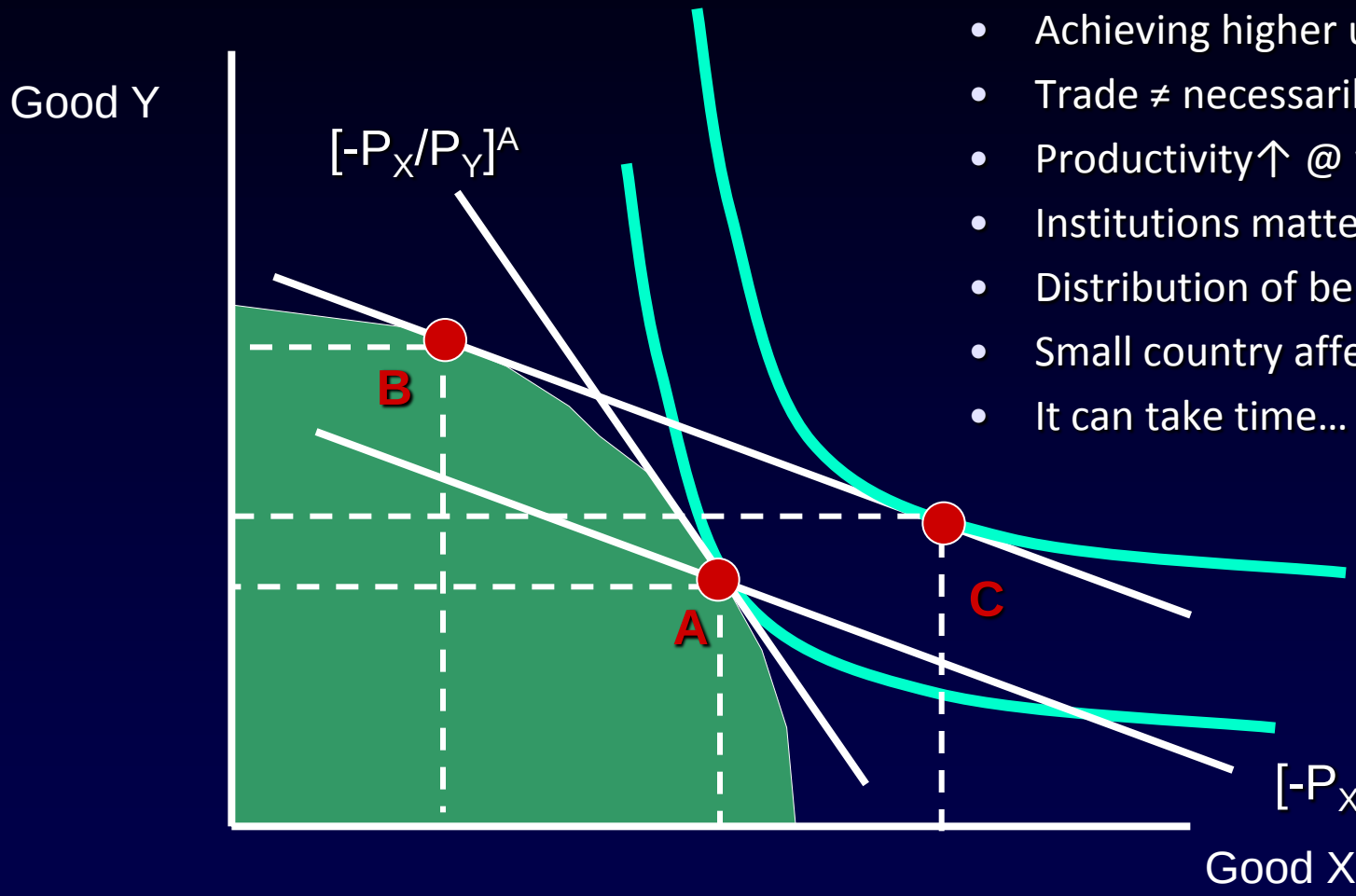
Kosovo with trade



Principal Conclusions:

- Achieving higher utility
- Trade ≠ necessarily job creation
- Productivity↑ @ world prices
- Institutions matter
- Distribution of benefits(?)
- Small country affected more
- It can take time…

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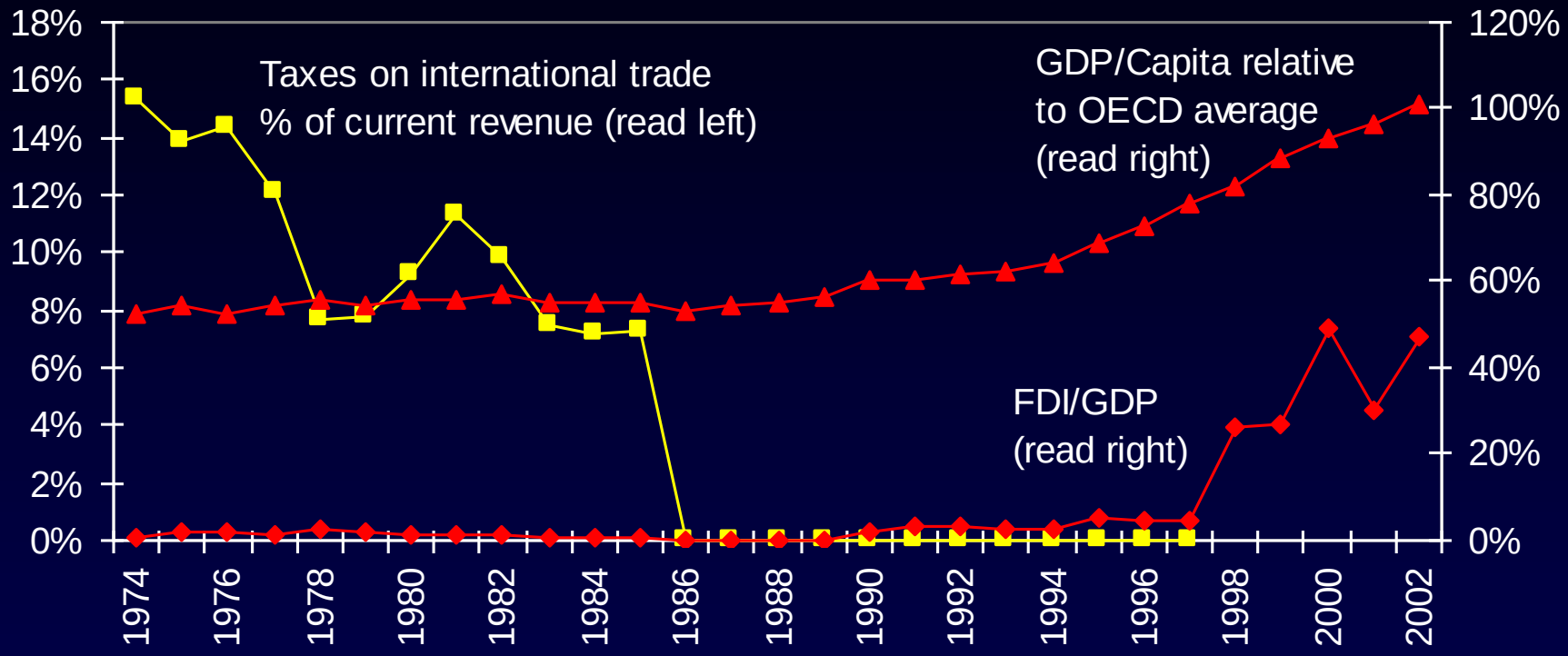
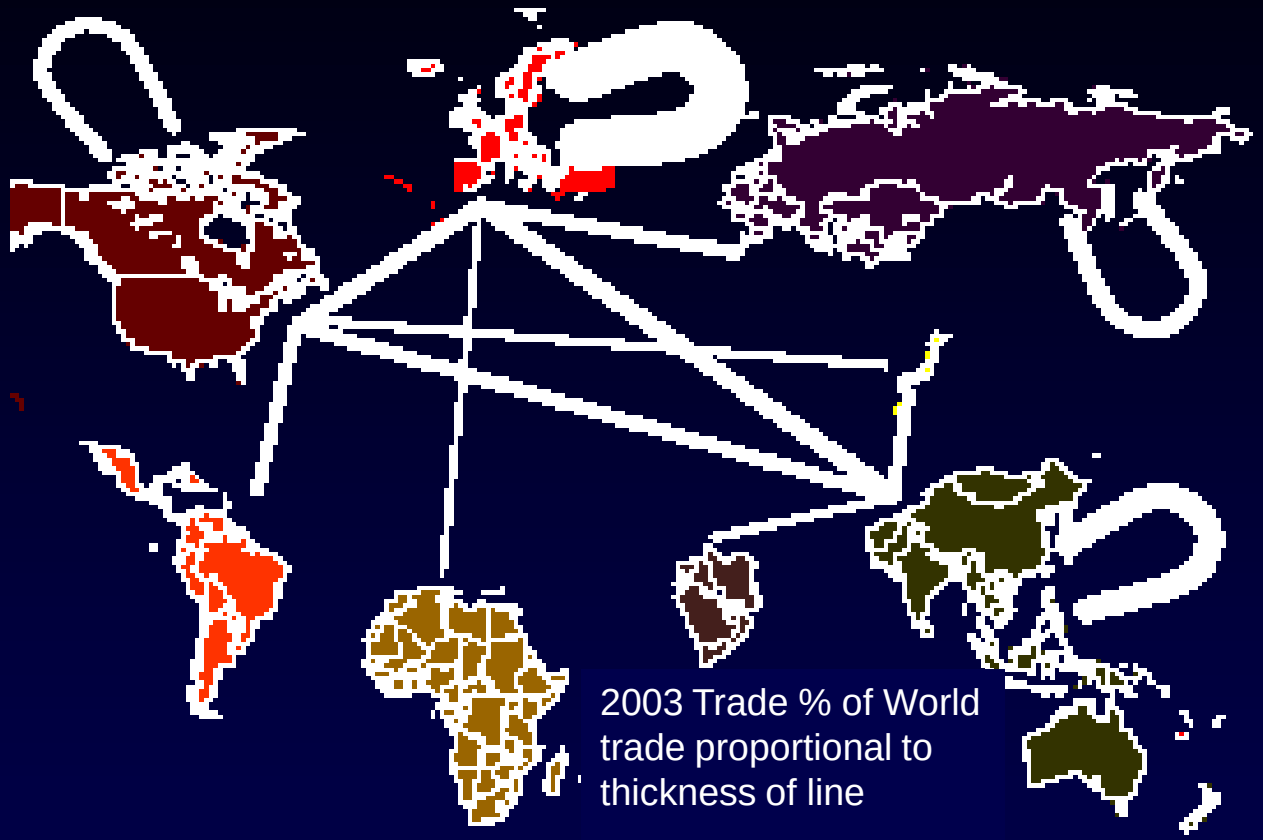
Ireland's Experience: It takes time!



Source: Gage OECD PFI paper

Relative amount of trade



Baldwin 2006; If <2% Trade is ignored

What causes so much trade amongst those countries with similar costs of factors of production?

Two possible explanations:

- Economies of scale
- Desire for variation

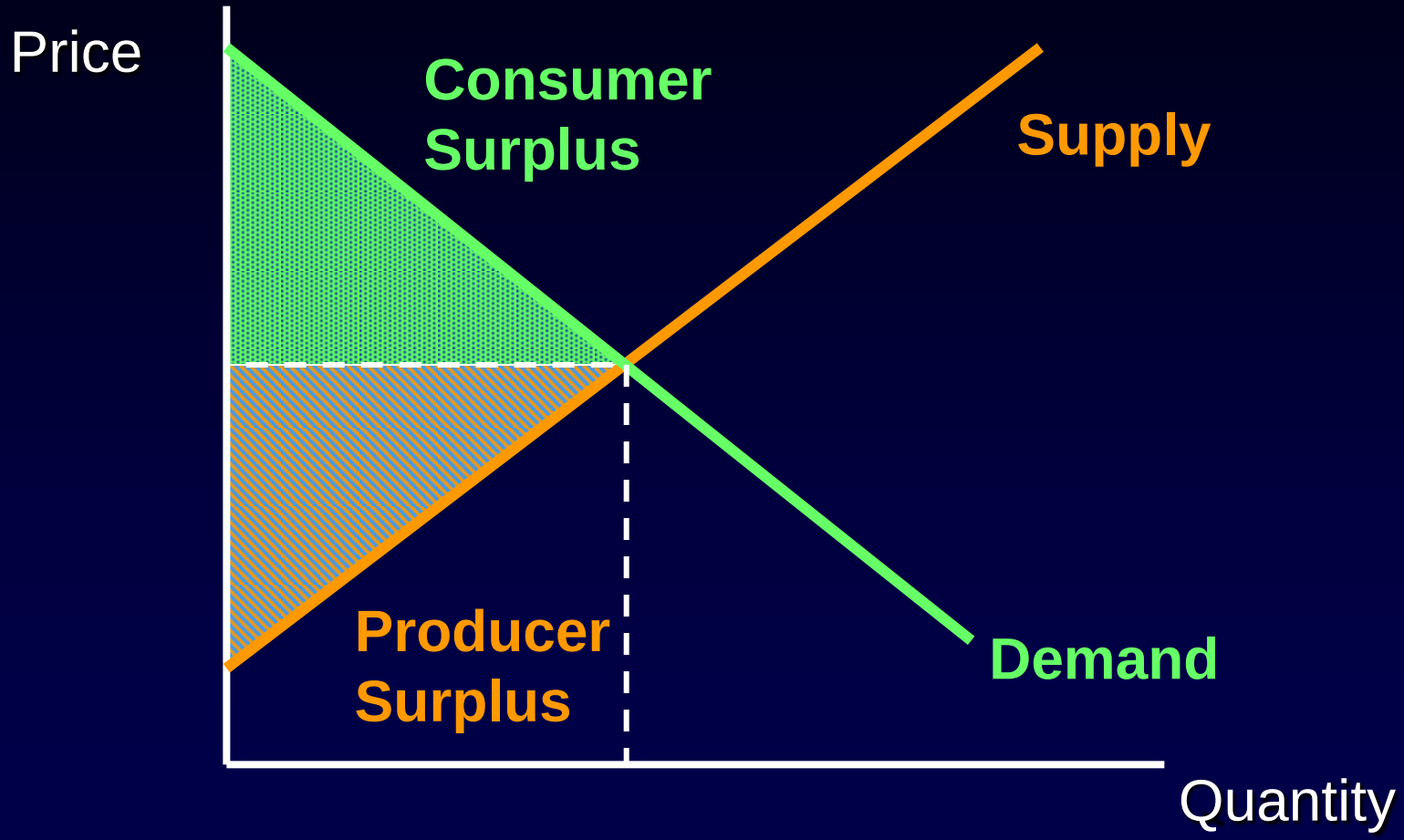
Competition /X-efficiency/ Allocation

- Prior analysis is largely static
- X-inefficiency: technical-efficiency is not being achieved due to a lack of competitive pressure (technology transfer).
- Allocative inefficiency: a firm should not employ brain surgeons to dig ditches.
- Both inefficiencies can be driven out by competitive pressures – some economists view such the real benefits of trade.

Trade Policy Instruments & Techniques

- Analysis Tools
  - Supply & Demand Curves
  - Welfare
- The Instruments
  - Tariff
  - Quota / Tariff Rate Quota
  - Export Subsidy
  - Others
- The Techniques
  - Tariff peaks and escalation
  - Rules of origin

Supply, Demand & Welfare



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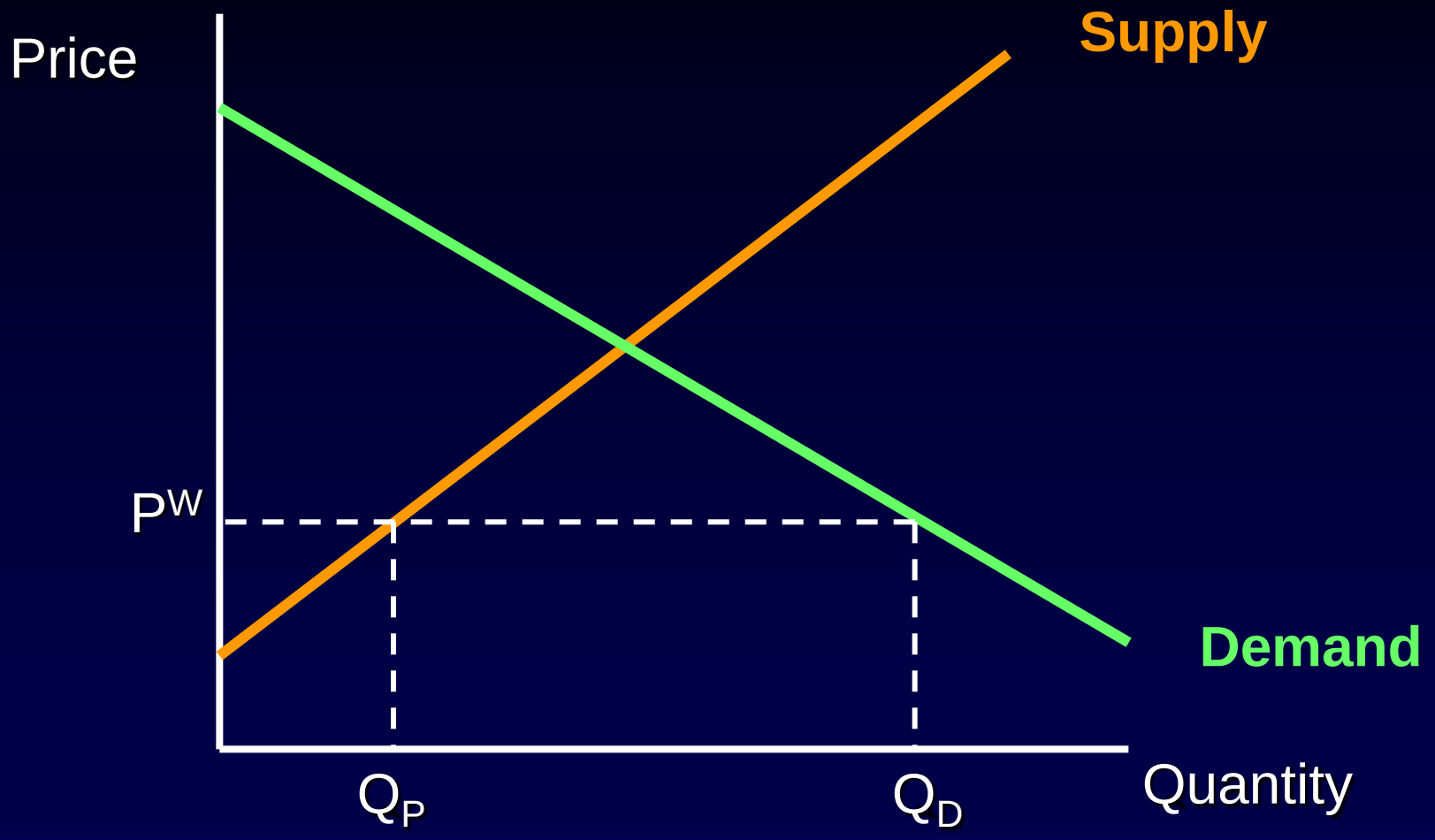
Importer



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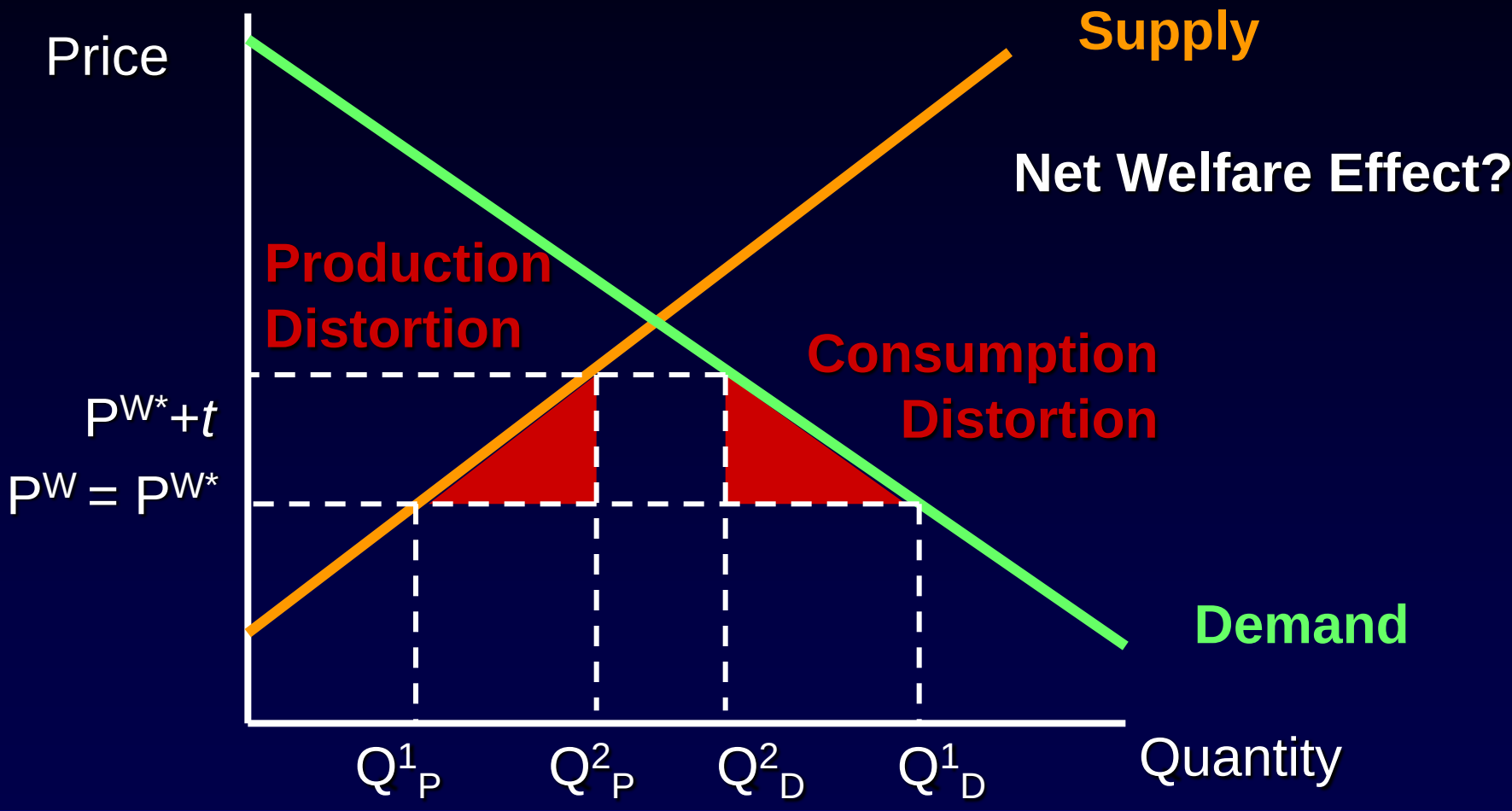
Small Country Importer Imposes a Tariff



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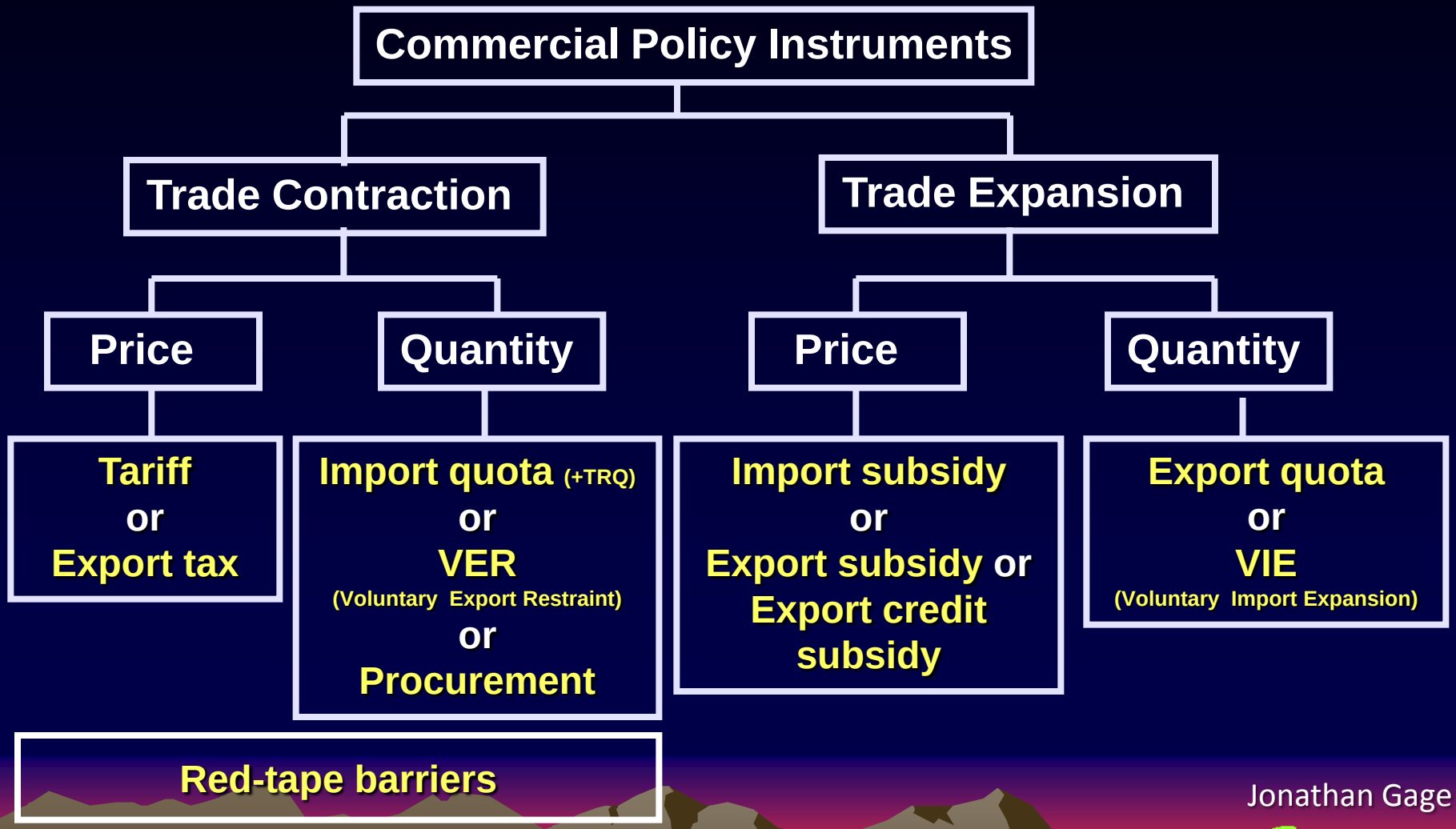
Classification of Policy Instruments



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Summary of Instruments

	Tariff	Export Subsidy	Import Quota	VER
Producer	↑☺	↑☺	↑☺	↑☺
Consumer	↓☹	↓☹	↓☹	↓☹
Govt Revenue	↑☺	↓☹ (Spending ↑)	No Change (Rents to Licensees ↑)	No Change (Rents to Foreigners ↑)
Overall Welfare	Ambiguous (Small Ctry ↓)	↓☹	Ambiguous (Small Ctry ↓)	↓☹

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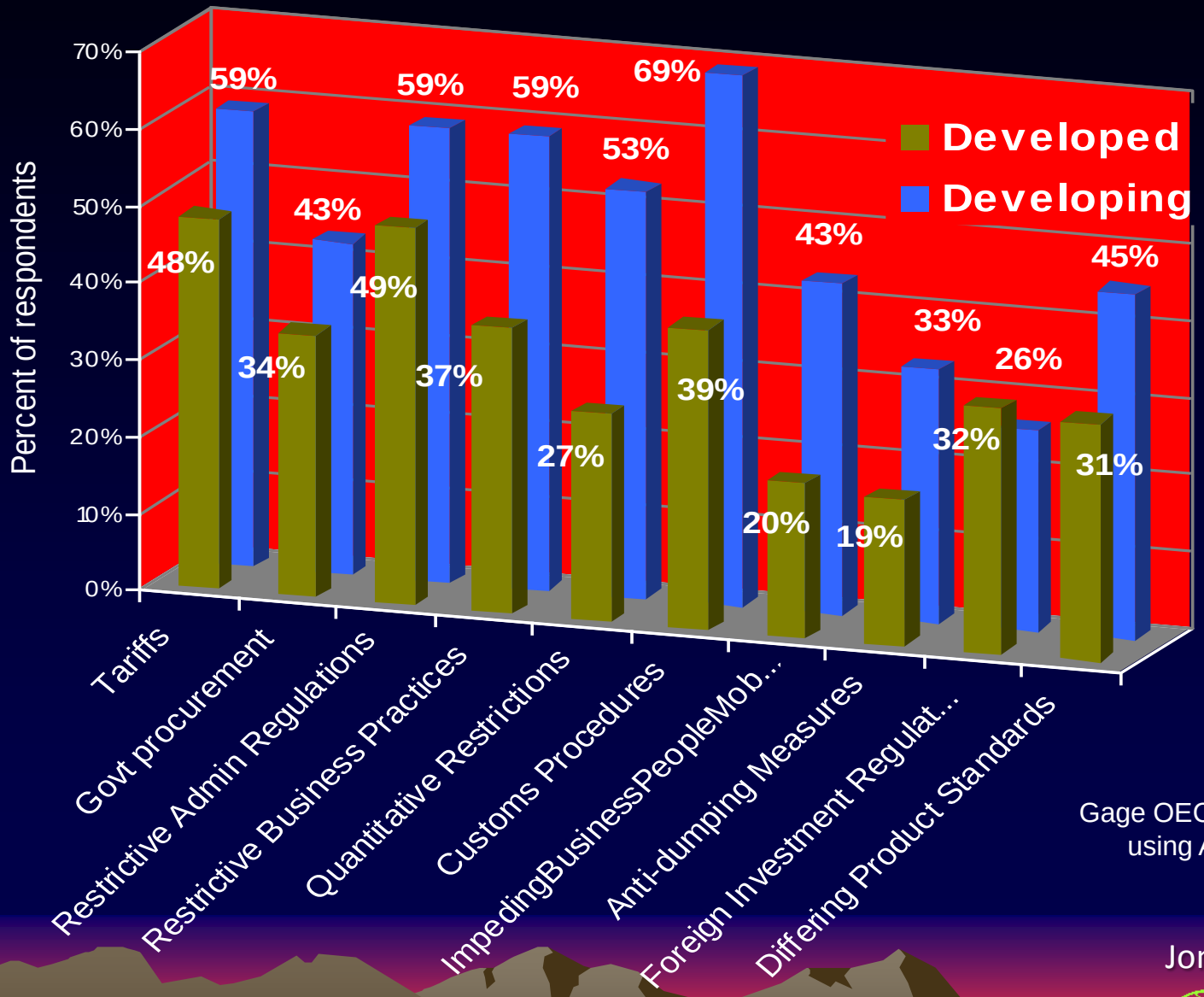
Non-Tariff Barriers (NTBs)

- A general phrase incorporating a host of protectionist / legitimate concern instruments/ techniques
- Big ones:
  - Border practices
  - TBT: technical barriers to trade & SPS: Sanitary & Phyto-Sanitary issues for public safety, morals, environment, labour standards,…

Non Tariff Barriers: The Evidence



Source:
Gage OECD PFI paper
using APEC survey
of business

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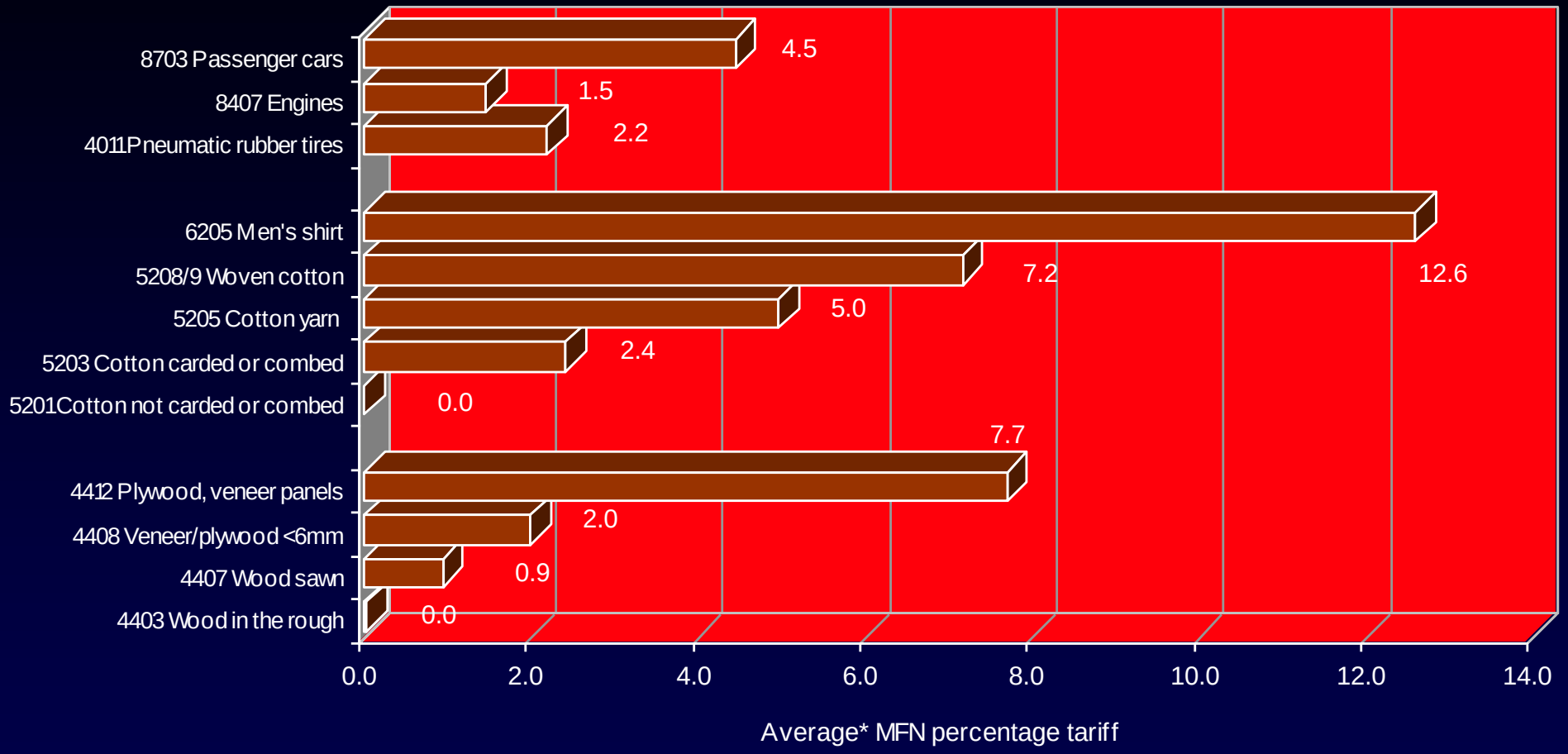
Tariff Peaks & Escalation



*Mean of USA, EU, Japan & Canada for sub-headings under this HSC heading in 2000

Source: Gage OECD PFI Paper

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Chile's Tariffs: Uniform and signalling with scheduled reductions

- Practice:
  - Uniform tariffs applied to nearly all products
  - Announce scheduled reductions to the tariff rate
- Advantages of uniform tariff:
  - Less distortions
  - Ease to administer
  - Less prone to lobbying
  - Less prone to corruption
  - Possible precursor to broad consumption tax
- Advantages of signalling:
  - Allows constituents time to adapt

Abuse of Rules of Origin

"NAFTA Triple Jump"

To get NAFTA tariff preference for garment import All 3 prior steps must be in NAFTA

HS52.03 Carded Cotton

Spinning

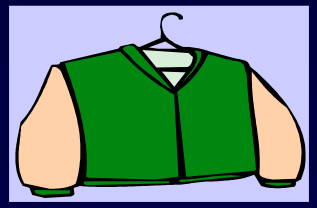
52.05 Cotton Yarn

Weaving

52.08 Cotton Fabric

Cutting, sewing

62.03 Cotton Garment



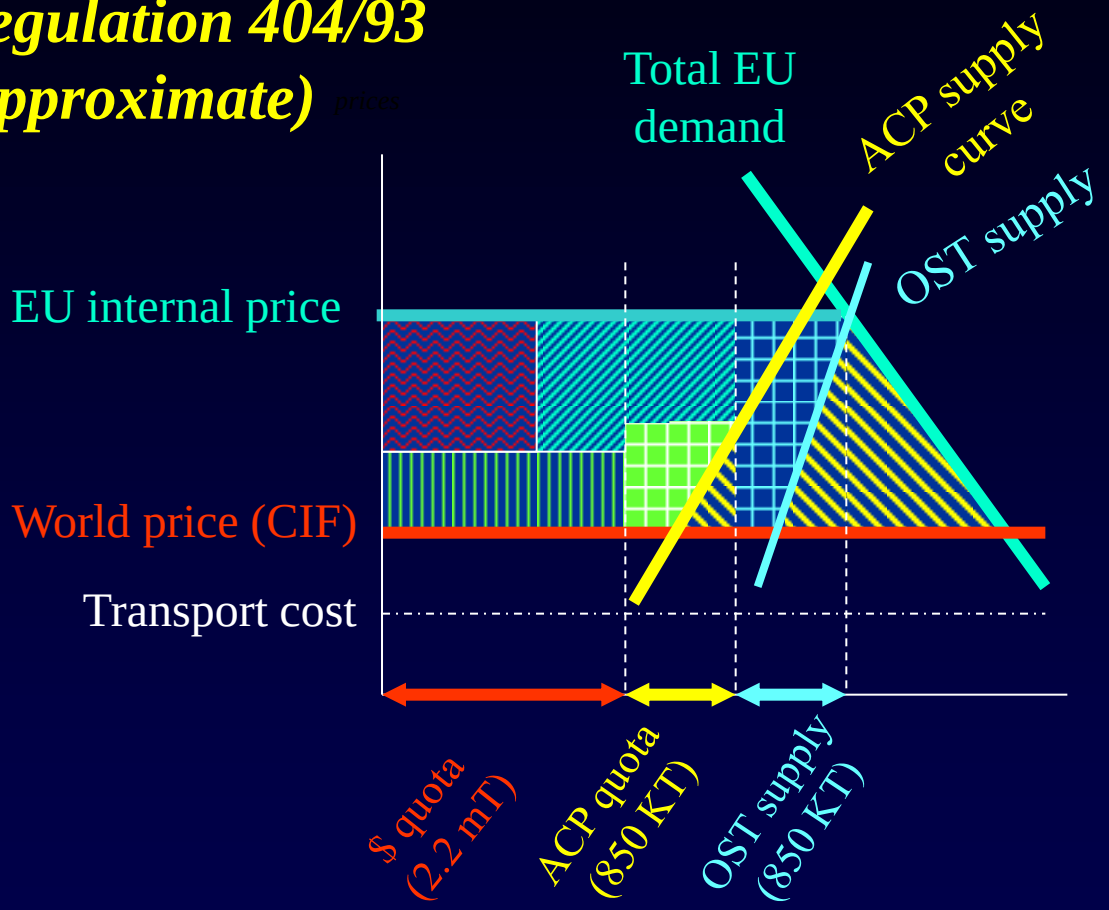
Source: Gage OECD Blurring Paper

Economic Analytic Models

- Analysis using supply demand curves
- Computable General Equilibrium (CGE) models
- Gravity models

Why Value-Chain Analysis is Important

Welfare analysis of [EU Bananas] Regulation 404/93 (approximate)



Profits of US importers

Profits of EU importers

Tariff revenue

Deadweight losses

Producer support

Source: Cadot 2003

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Trade Imbalances & Capital Flows

National Income = National Consumption: (Krugman)

$$Y = C + I + G + X - M$$

▼

$$(X - M) = (S^P - I) + (T - G)$$

Y = Income (GNP)
C = Consumption
I = Investment
G = Govt Spending
X = Exports
M = Imports
S^P = Private savings
T = Taxes

Consider if Kosovo builds a hydro-electric dam and buys a turbine from GE using GE Capital… what happens?

Is a current account deficit necessarily bad?...

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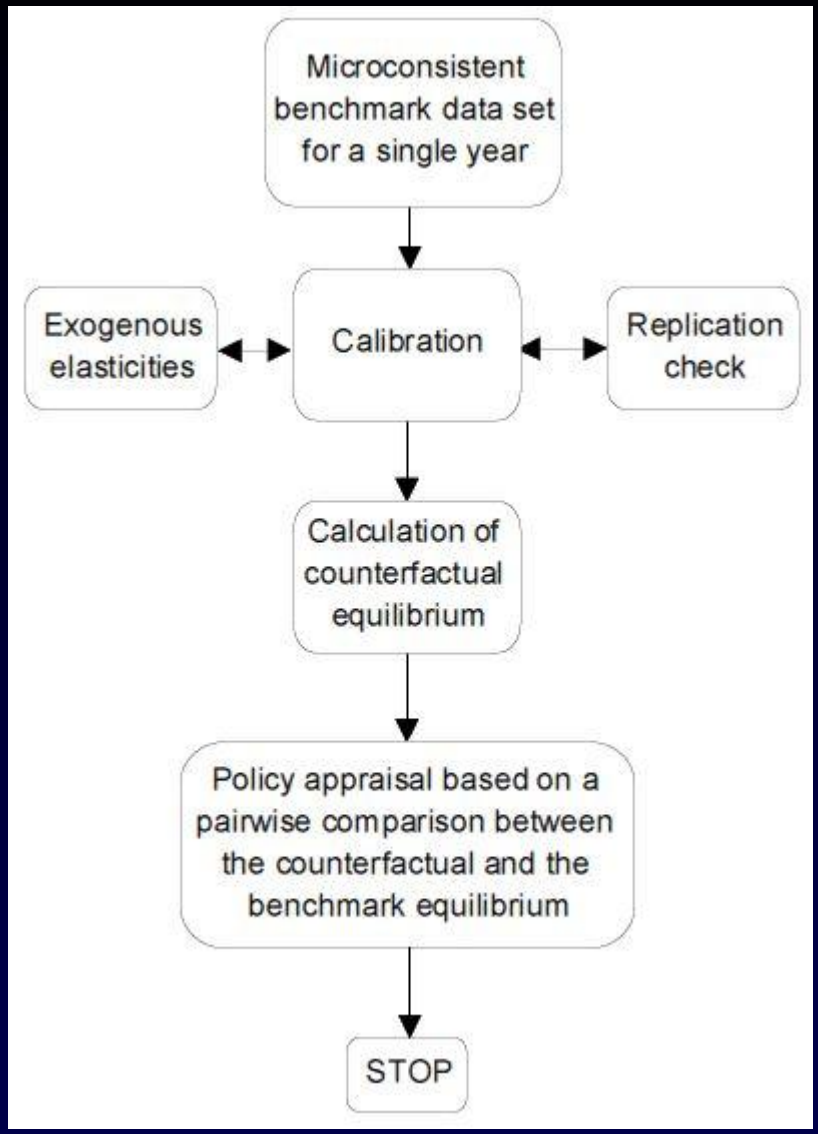
CGE models

Computable General Equilibrium Models use input/output relationships between regions and sectors to build a simulation of the economies of interest



Source: Petersen 1997

Example of CGE Model

"An introduction to CGE modelling and an illustrative application to Eastern European Integration with the EU." Toke Ward Petersen. September 1997.

The model of the Europe Agreements showed only small benefits for Czechoslovakia, Hungary and Poland, and even smaller benefit for the EU. Thus it is reasonable to say, that the model supports the critical voices, claiming that the Europe Agreements are mainly of political value and that the economic consequences are small. If the purpose of the agreement was economic gains, then the analysis showed that a Free Trade Agreement would be preferable to the Europe Agreements.

Gravity models

$$Trade_{ij} = a\ (GNP_i)^b\ (GNP_j)^c\ (DIST_{ij})^d$$

Logarithm of the above and add other explanatory variables

$$\ln(Trade_{ij}) = a + b\ln(GNP_i) + c\ln(GNP_j) + d\ln(DIST_{ij}) + [\text{other variables \& dummies}]$$

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Example of Gravity Model

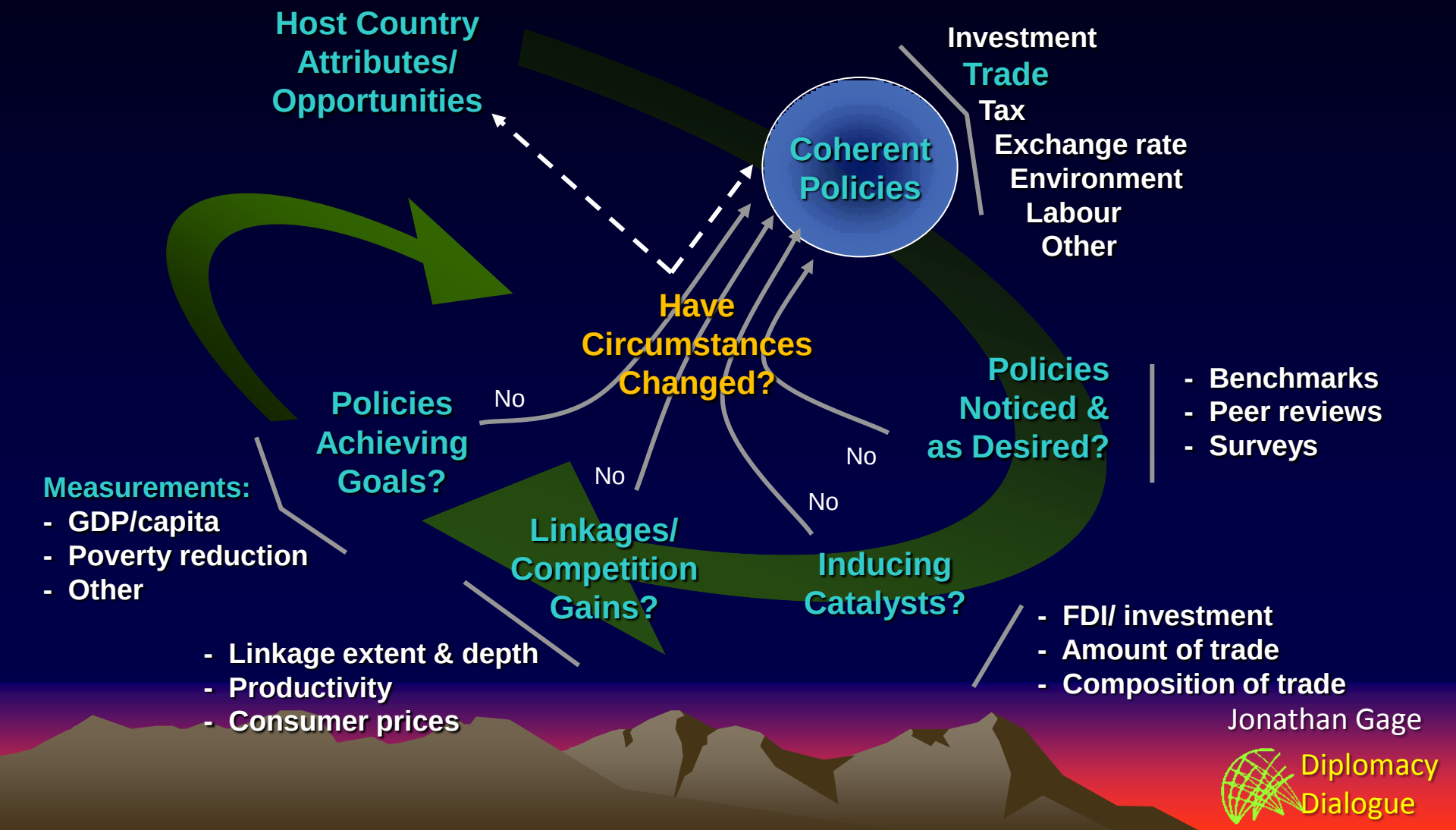
"Potential trade in southeast Europe: a gravity model approach"
Edward Christie, 2002

Dependent variable: imports cif

Variable	Coefficient	Prob.	Multiple
GDP importer	0.87	0.00	-
GDP exporter	1.01	0.00	-
Distance	-1.21	0.00	-
English language	0.86	0.00	2.36
EU14	0.80	0.00	2.22
EU Association	0.64	0.00	1.90
CEFTA7	1.03	0.00	2.79
Baltic state	3.75	0.00	42.78

Two considerations: landlocked (-0.27=0.76) & conflict dummies

Trade Policymaking Loop: Measuring up & sensing change



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Promoting FDI in Manufacturing
(Example of Coherent Policies)

- Promote an open banking service sector even though it may not increase manufacturing FDI
- Support liberalisation of broadband internet
- Limit trade rules that discourage fragmentation
- Promote international technical and process standards
- Introduce a coherent innovation policy
- Institute complementary competition policies
- Facilitate trade as timing and costs tighten

[Source: Gage OECD FDI in Manufacturing, 200]

Extra slides: for WTO background

[to be covered if sufficient time]

The Prisoner's Dilemma

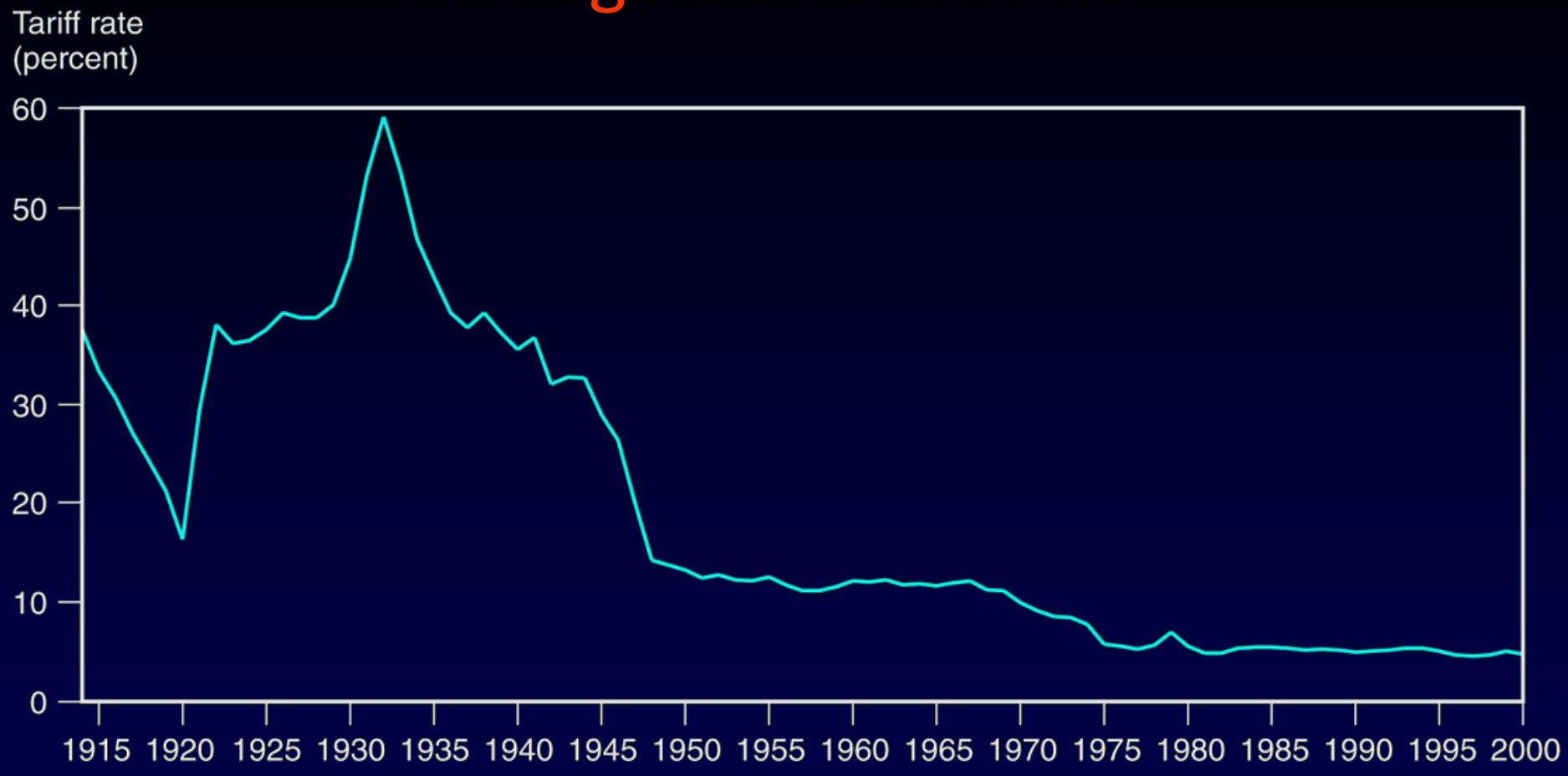
Why trade negotiators are mercantilists

U.S. \ Japan	Free Trade	Protection
US Chooses		
Free Trade	10 / 10	20 / –10
Protection	–10 / 20	–5 / –5

Japan Chooses

Source: Modified from Krugman

Average US Tariff Rate



Source: Krugman

Modalities

"Modalities"

- is a framework agreement whereby commitments can be calculated, e.g. to use Swiss Formula including the coefficients and specifications for the flexibilities.
- are used by Members to produce their offers or "comprehensive draft commitments" = "draft schedules"
- Missed deadlines
  - July 2004 Package was to be the final modalities, June 2006 "Towards NAMA Modalities" is still far from true modalities
  - Difficulty with US "fast track authority"
  - Most NAMA negotiators expect little progress unless Agri moves

Swiss Formula:

$$Z = AX/(A+X)$$

where

X = initial tariff rate (e.g. 100%=100)

A = coefficient (e.g. 25)

Z = new tariff rate (given above: 20 = 20%)

Examples:

X = 100%; A=25 ⇨ Z = 20.0% (reiterating above)

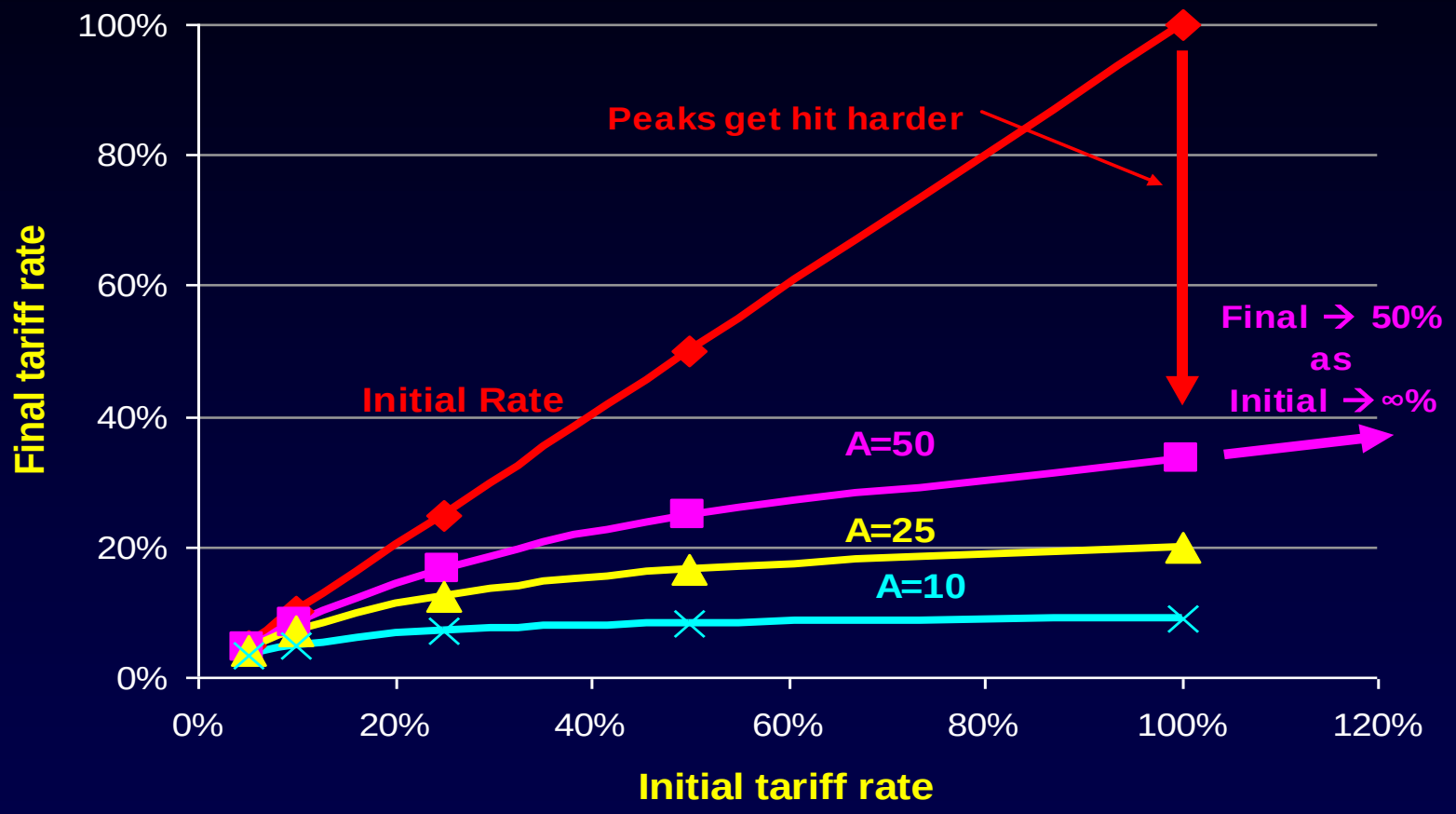
X = 25%; A=25 ⇨ Z = 12.5% (if X=A ⇨ 50% cut)

X = 25%; A=15 ⇨ Z = 9.4% (lower A ⇨ more cut)

What happens when $X \rightarrow \infty$?

Swiss Formula

Key Attribute: Harmonising – peaks get hit harder



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Sample UNCTAD-TRAINS

HS: 871200 Bicycles and other cycles (including delivery tricycles), not motorised.

Market	Imports (US$'000)	MFN Mean (%)	MFN Minimum (%)	MFN Maximum (%)	NTM Incidence (%)	# of Tariff Lines	Exports (US$'000)
China	356	23.0	23.0	23.0	0	7	33997

Sample of Tariff Schedule

	Schedule LXXX - EUROPEAN COMMUNITIES									
	PART I - MOST-FAVOURED-NATION TARIFF									
	SECTION II - Other Products									
Please refer to file CEENTE2.WK4 for the notes										
Tariff item number	Description of products	Base rate of duty				Bound rate of duty		Initial negotiating right	Other duties charges	Remarks
		Ad valorem (%)	Other	U/B/C		Ad valorem (%)	Other			
1	2	3				4		5	6	7
9108	Watch movements, complete and assembled:									
	-Battery or accumulator powered:									
9108.11.00	--With mechanical display only or with a device to which a mechanical display can be incorporated	6.2				4.7				
9108.12.00	--With opto-electronic display only	6.2				4.7				
9108.19.00	--Other	6.2				4.7				
9108.20.00	-With automatic winding	6.2	6.2 MIN 0.17 Ecu p/st			5	5.0 MIN 0.17 Ecu p/st			

Extra slides: for recent issues

[to be covered if sufficient time]

Industrial Organisation Change

- Fragmentation
  - Enabled by services trade
  - Fragmented segment may be a traded service
- Primary motivations
  - Efficiency/ reducing risk
  - Increasing demand
  - Minimising tax
- Implications
  - FDI may not capture 'MNE' influence
  - SMEs may take more of a role
  - Specifics for firms (and perhaps governments)

Value Chain Assessments

Chain	Fragmentation		Implication for	
	Current	Future?	FDI Manuf.	Services Trade
Clothing	Nike & textile/ garment	Digital & Fashion sensitive	Realignment	Digital services↑ Logistics↑
Auto	Assembler / Supplier	Build-to-order	Economies of scale↓(?)	85% order-to-delivery time
SC Chips	Fabless/ Fabricate	Design	Minimal	Is this R&D?

Up & Coming Issues (1)

- With the financial crisis…
  - bank letters of credit → open credit;
    - risk management thrown onto the exporter; and/or
    - solved through independents and technology.
  - Trade in financial services scrutinised more:
    - subject to higher prudential oversight
    - Role of credit rating agencies
  - Rise of protectionism… likely if unemployment continues…
    - Behind the border measures; no longer overt tariff increases but more subtle standards issues
    - environmental carbon tariffs
    - use of competitive currency devaluation
  - Rise of China/ other creditor nations
    - Use of standards to dictate terms for IP transfer
  - Significant risk of pension shortfall and housing continues to languish; US (+Japan&EU) consumer does not return to the same pre2007 source of growth or destination for goods to the same degree.

Up & Coming (2)

- With the improved technology…
  - Private tracking ↑ (including computer scans, RFID, bar codes,)…
    - Carrefour/Sainsburys/… etc… must trace food back to the field/herd/… meeting SPS requirements is not enough
  - Need to track carbon units, etc
    - Supply chain can't provide this information? It will not be used!
  - Higher security ⇨ all containers (and people) will need to be pre-screened by x-ray before entry into North America or EU
  - Business process outsourcing will continue to jurisdictions which have capable infrastructure: human, physical asset and legal
  - With technology, education services becomes
    - more international (both delivered in more partnerships and cross-border mode),
    - more hybrid and
    - needs ISO 10015 for quality assurance
  - Health tourism will flourish with aging population and specialised clinics using latest 3D printer technologies

Up & Coming Issues (3)

- Increasing bilateralism
  - Caused by lack of multilateral (and to some degree regional)
  - Allows deeper commitments particularly in the three controversial Singapore issues:
    - Investment including investor-state dispute resolution
    - Competition including requiring competition law principles to be applied to anti-dumping & countervail
    - Government procurement because foreign companies want that open.
  - Somewhat allows a better attack on NTBs which are becoming the main bugbear for private companies trying to trade