

The GVC revolution: Making GVCs work for developing nations

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Prelims

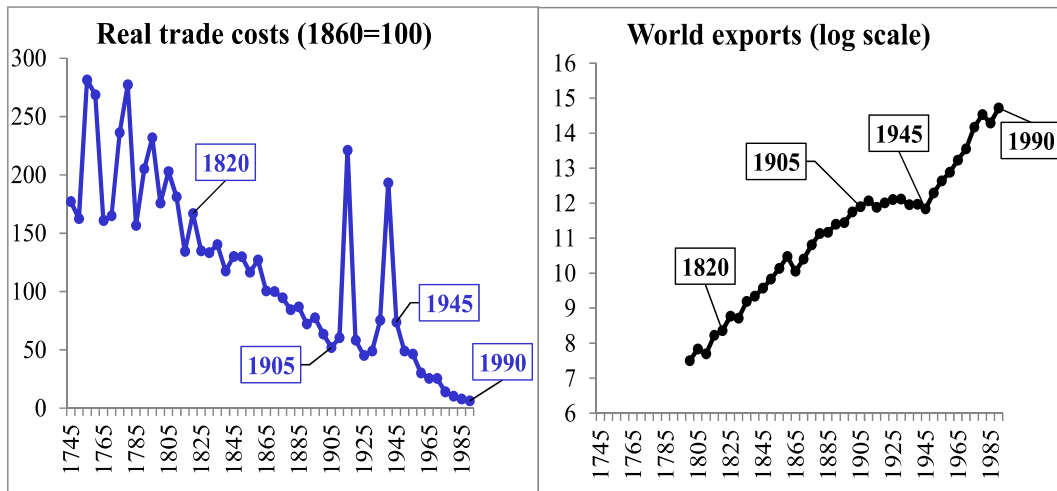
- Thanks
- Apologies
- Excuses
- Background

Mis-thinking globalisation = mis-thinking
development & trade

Conventional view of globalisation

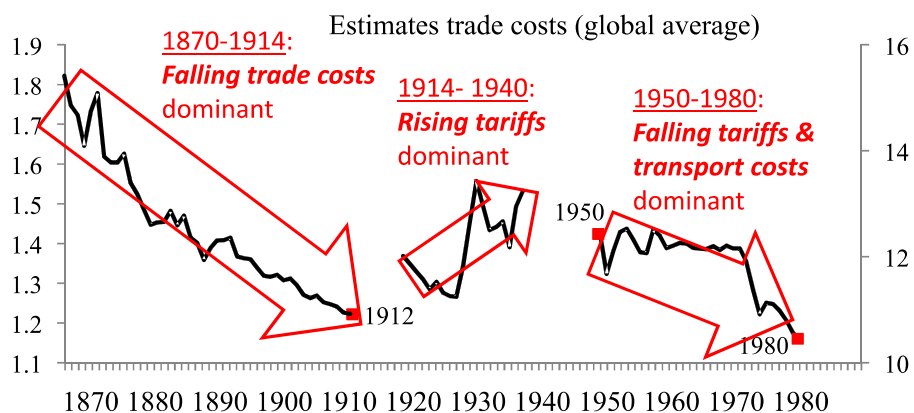
- No-trade to free-trade, slowly.
- It is mostly about trade costs.
- Worked well for 175 years.

World real trade costs and trade volume, 1745 to 1990



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1820 – 1980: Globalisation is all about trade costs

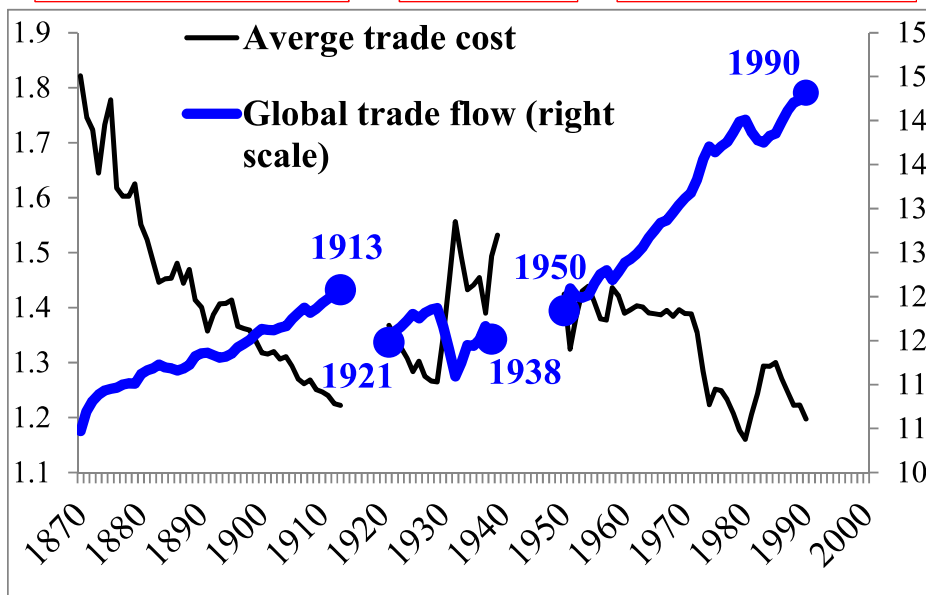


1820–1990: Globalisation ↔ Trade costs

1. Falling transport costs

2. Rising tariffs

3. Falling tariffs & transport costs



Source: Gravity model based estimates of trade costs (Jacks, Meissner, Novy 2011).

Mainline conceptualisation

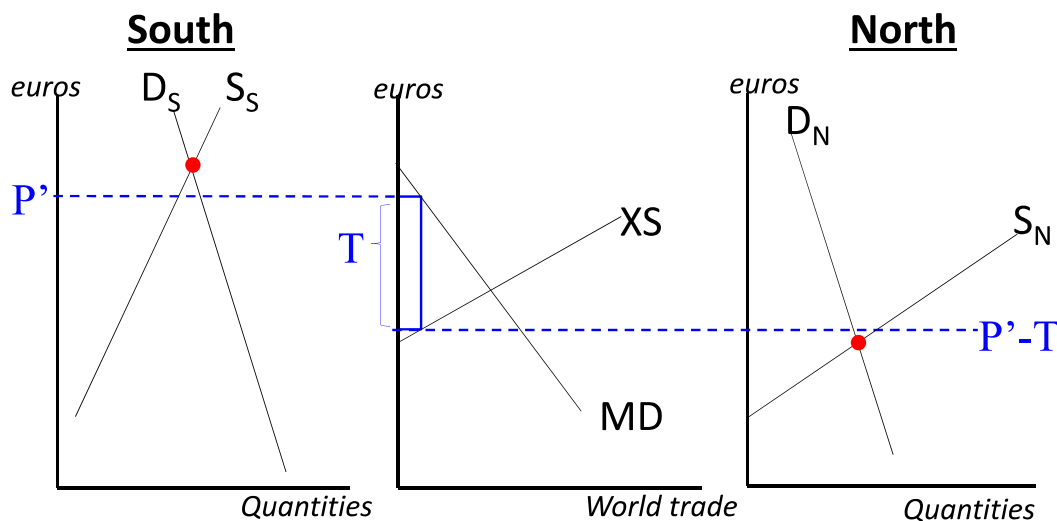
Mind sets matter

Mainline conceptualisation

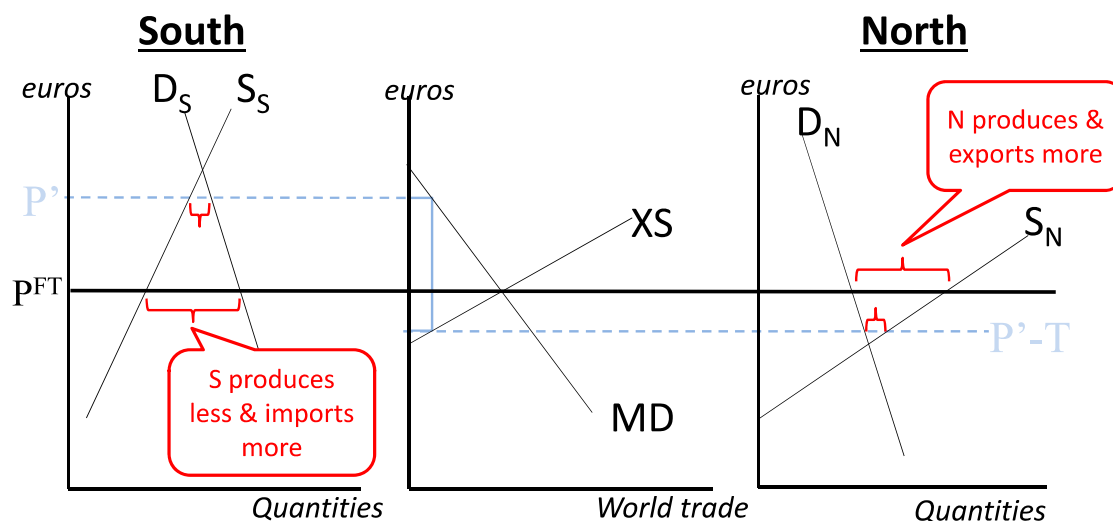
- Ricardo, 1817;
 - Heckscher & Ohlin, 1920s and 1930s;
 - Helpman-Krugman, 1985;
 - Newer trade models follow same basic conceptualisations, which has 3 precepts.
1. Percept #1: trade is driven by 'comparative advantage'.
 - Some nations are intrinsically better at making some things than others.
 2. Percept #2: Nations are the correct unit of analysis.
 - The differences in competencies that determine comparative advantage are national.
- Precept #3: globalisation driven by lower trade costs.
 - In trade theory, goods are the only things that cross national borders, so globalisation happens if and only if trade barriers fall.

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North has comparative advantage



Trade costs fall →

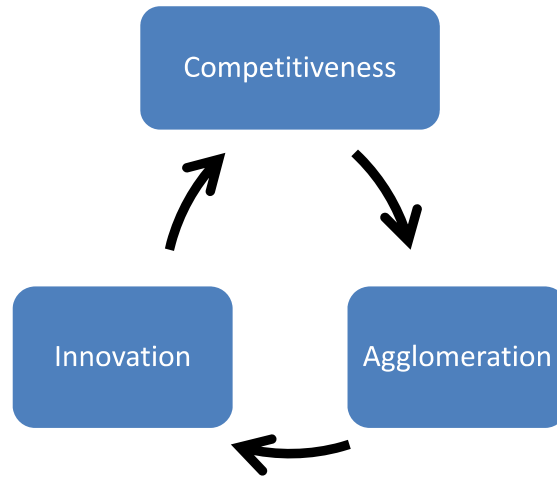


Mainline focus

- Lower trade costs leads to:
 - Convergence in int'l consumption patterns;
 - Divergence in inter'l production patterns.
- Each economy becomes a caricature of itself.
 - Specialise in comparative advantage sector.

‘Dynamics’ give big effects

- With correct institutions, dynamic gains multiply static effects.
- But nations on wrong side of this can be hurt.



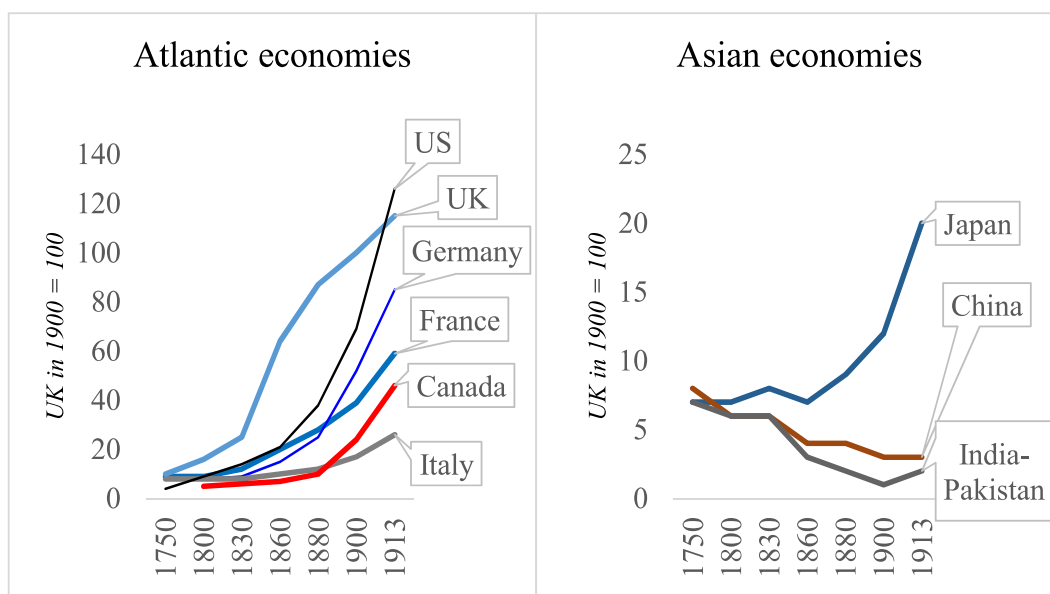
Albert Bridge, Adelaide made in UK, 1850



These dynamics shaped the world

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Per capita industrialisation levels, 1750-1913



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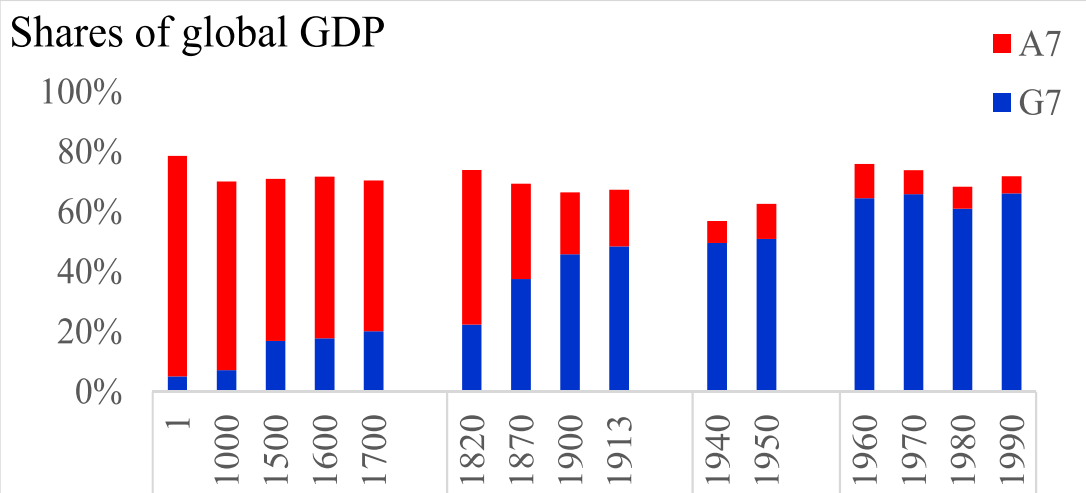
European vs Chinese ceramics

14th century



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Globalisation's impact: A7 v G7

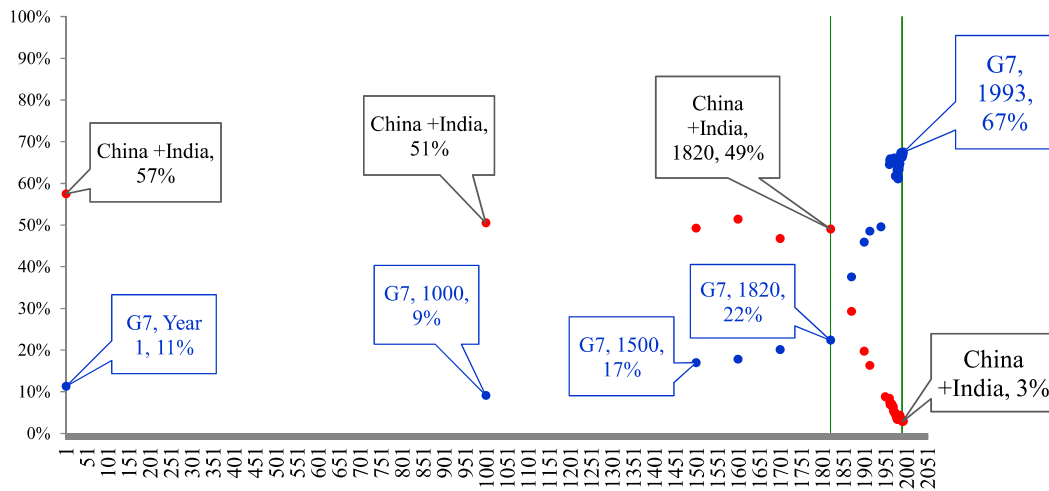


A7 = Egypt, Iran, Iraq, Turkey, India, China, Greece/Italy
G7 = US, Germany, Japan, France, Britain, Italy and Canada

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World GDP shares, year 1 to 1990

World GDP shares, Year 1 to 2012



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Globalisation: *Dr Jekyll & Mr Hyde*



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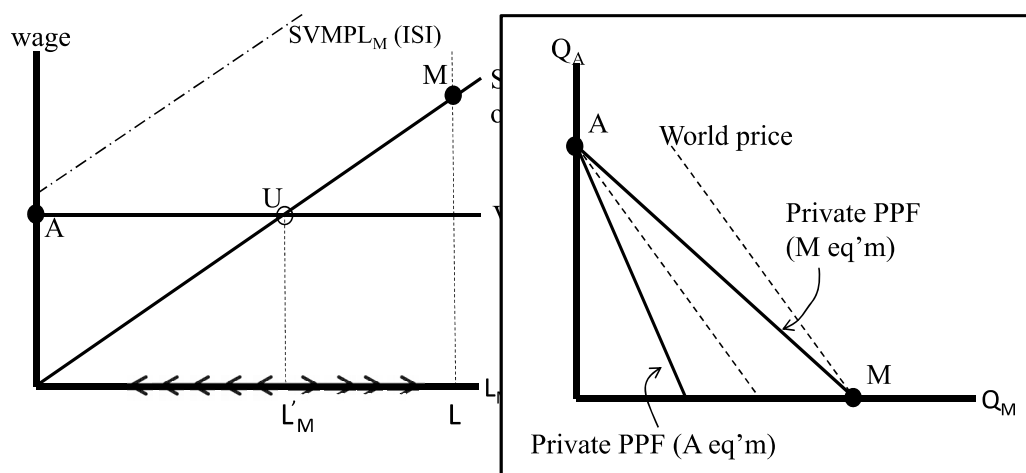
Mainline conceptualisation & industrialisation thinking

- Britain was first and thus unusual.
- US, Germany, France, Italy, Russia, Canada, Japan all followed something like import-substitution industrialisation (ISI).

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Industrialisation's touchstone: lumpiness

- Industrialisation touchstone:
 - Nation has a comparative advantage in manufacturing but is stuck in 'bad' equilibrium.



Traditional growth diagnostics

- 1st unbundling thinking:

$$Y_{Jpn} = A_{Jpn} F[L_{Jpn}, K_{Jpn}]$$

Spence growth commission (2008)

Economy	Period of +7% growth	GDP/pop at start	GDP/pop in 2005
Botswana	1960–2005	210	3,800
Brazil	1950–1980	960	4,000
China	1961–2005	105	1,400
Hong Kong, China*	1960–1997	3,100	29,900
Indonesia	1966–1997	200	900
Japan*	1950–1983	3,500	39,600
Korea, Rep. of*	1960–2001	1,100	13,200
Malaysia	1967–1997	790	4,400
Malta*	1963–1994	1,100	9,600
Oman	1960–1999	950	9,000
Singapore*	1967–2002	2,200	25,400
Taiwan, China*	1965–2002	1,500	16,400
Thailand	1960–1997	330	2,400

Conventional view of development

Flying geese pattern of development



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Hausmann & Rodrik

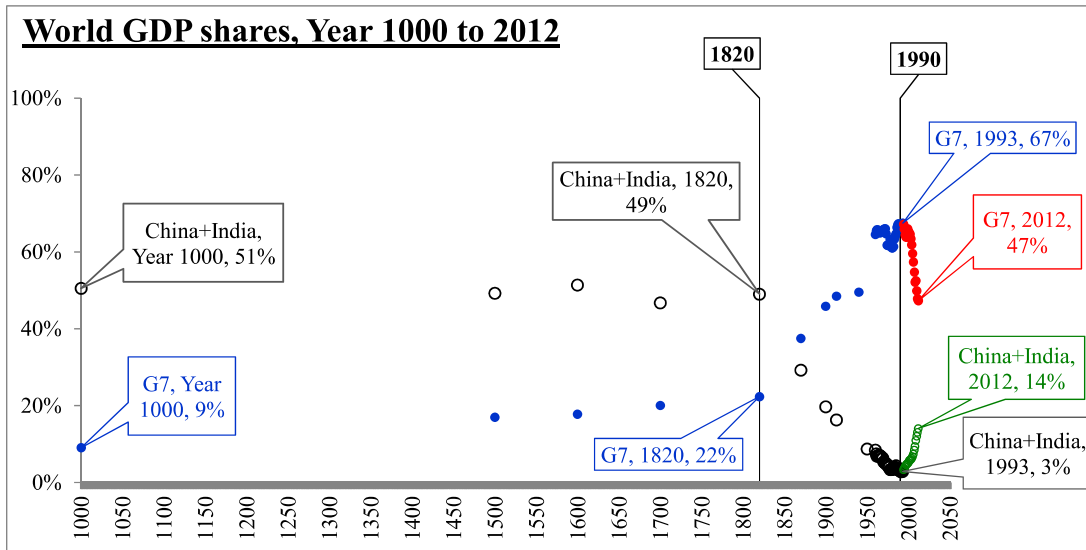


But then globalisation changed



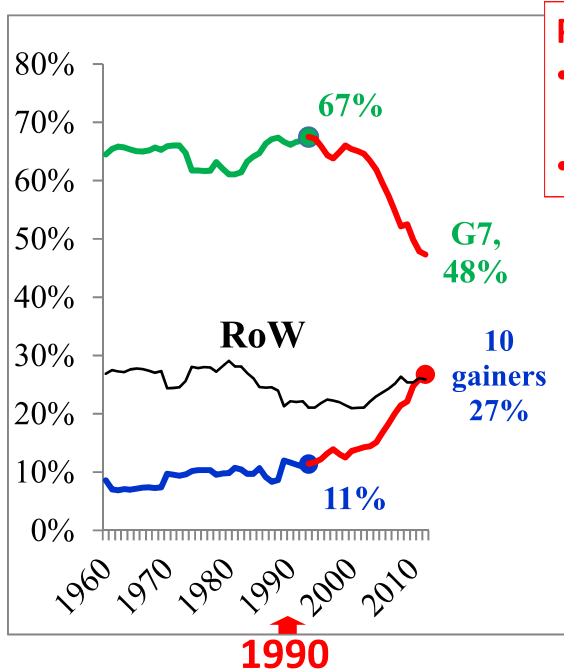
World GDP shares changed

World GDP shares, year 1 to 2012



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Global GDP shares, 1960-2012



Post-1990:

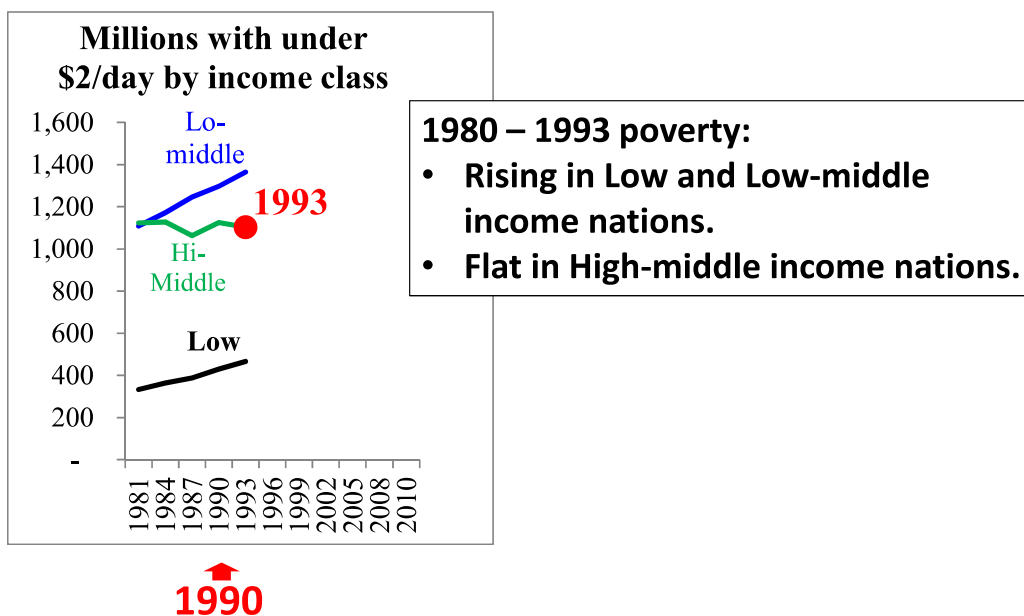
- G7 share loss goes to 10 developing nations.
- RoW see little change.

China, Brazil, Mexico, Poland, India, Turkey, Russia, Korea, Indonesia, Venezuela

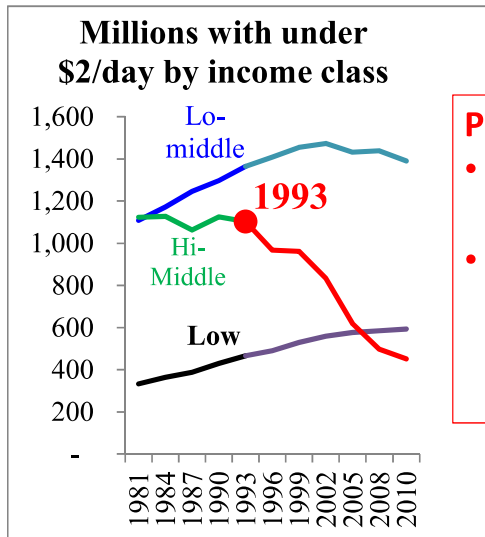
World poverty changed

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People in poverty (under \$2/day)



People in poverty (under \$2/day)

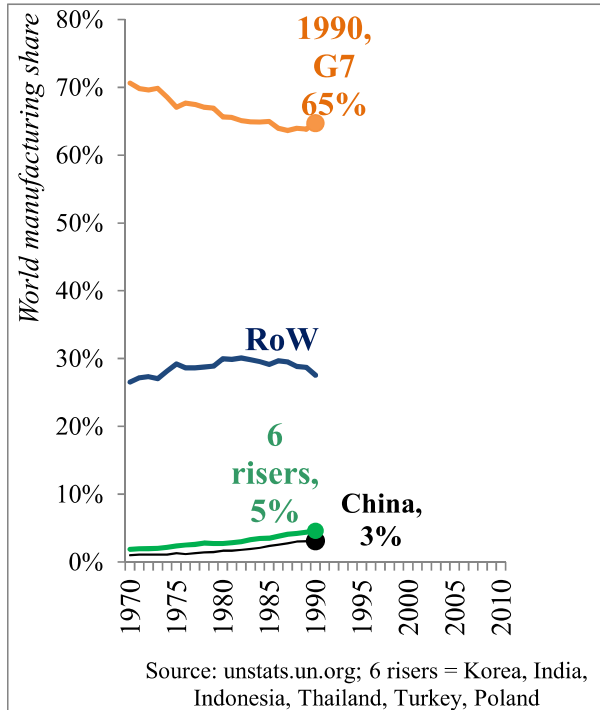


Post 1993

- Hi-middle poverty plummets.
 - 650 million fewer poor!
- Others' poverty keeps rising.

World manufacturing changed

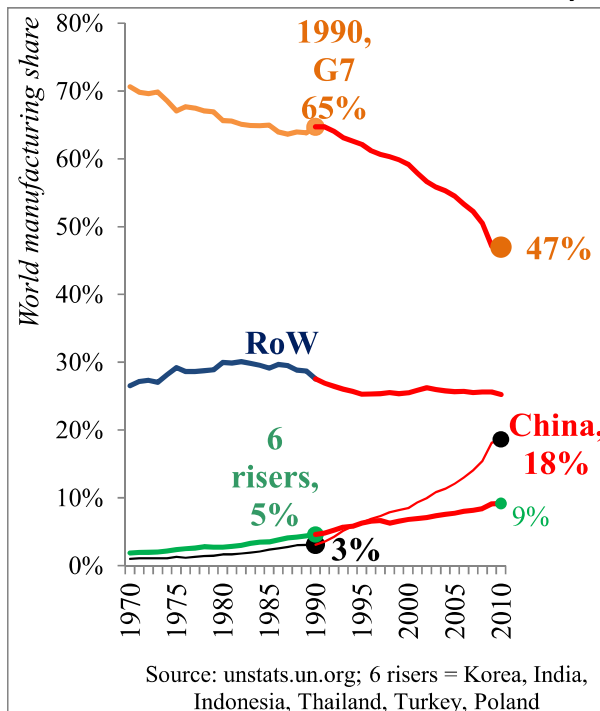
Global distribution, Manufacturing



Up to 1990:

- G7 dominated.
- Slow decline for G7.
- Slow rise for 7 developing nations.

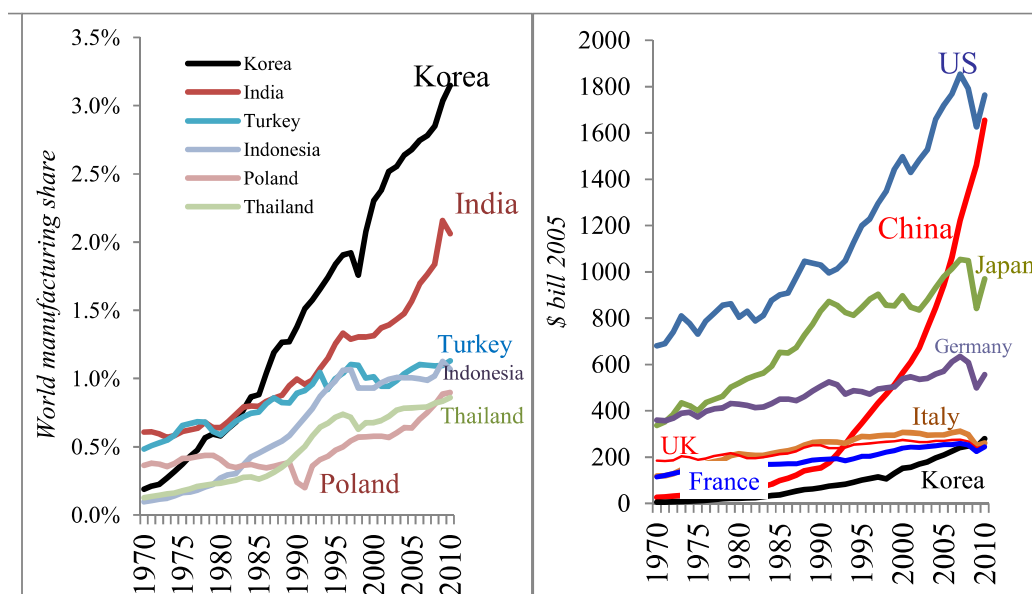
Global distribution, Manufacturing



From 1990:

- G7 share loss plummets.
- RoW see little change.
- '7 risers' gain all of G7's loss.

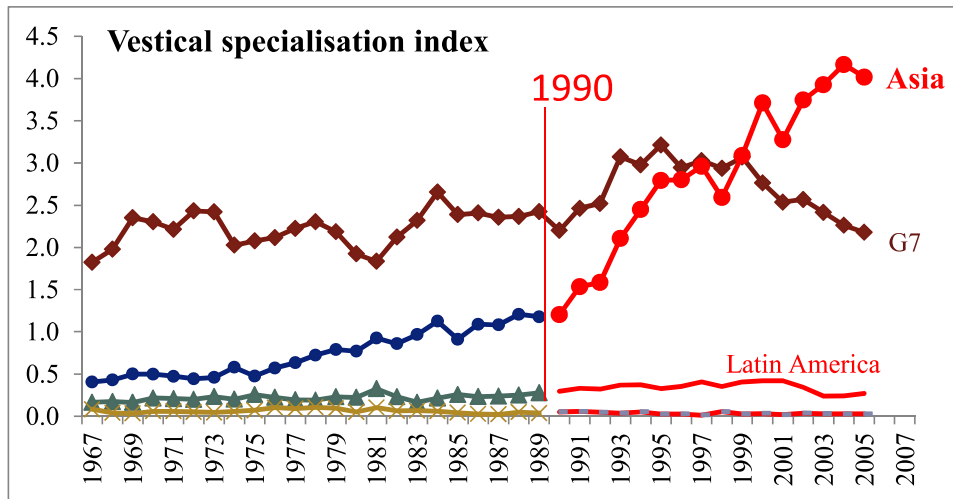
Global manufacturing levels



Trade changed

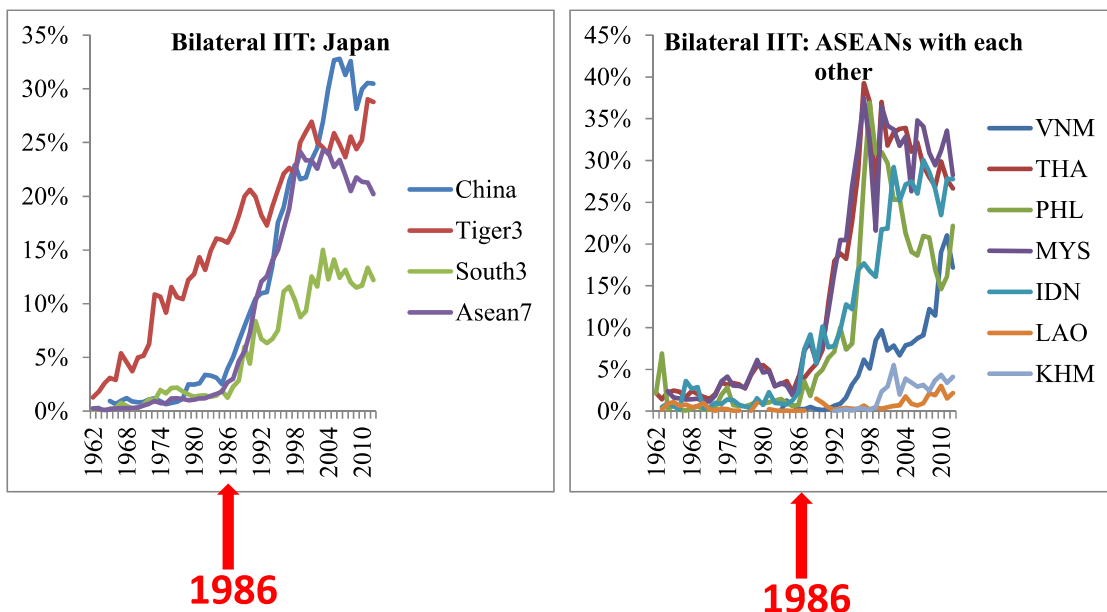
Timing

1. North-North supply-chain trade since 1960s
2. North-South since late80s or early90s

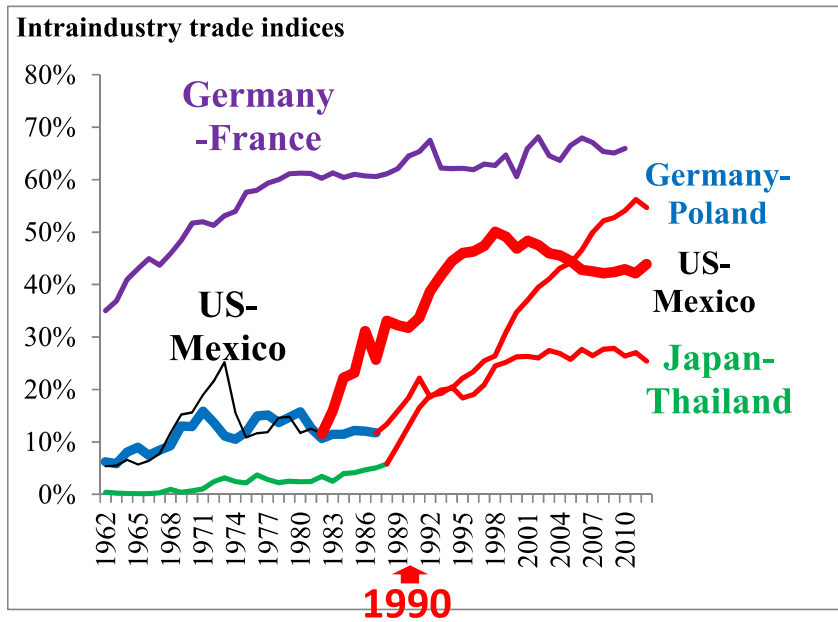


Globalisation's impact changed ~1990

Bilateral Intra-Industry Trade , 1962-2012



Nature of trade changed: “Back & forth trade in similar goods”

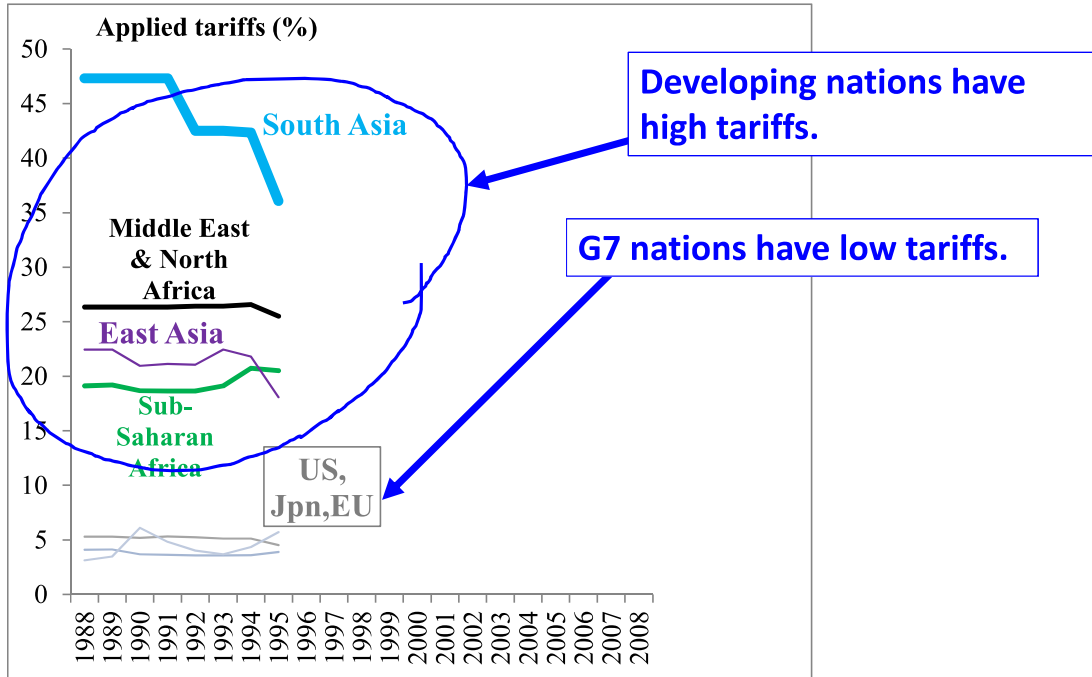


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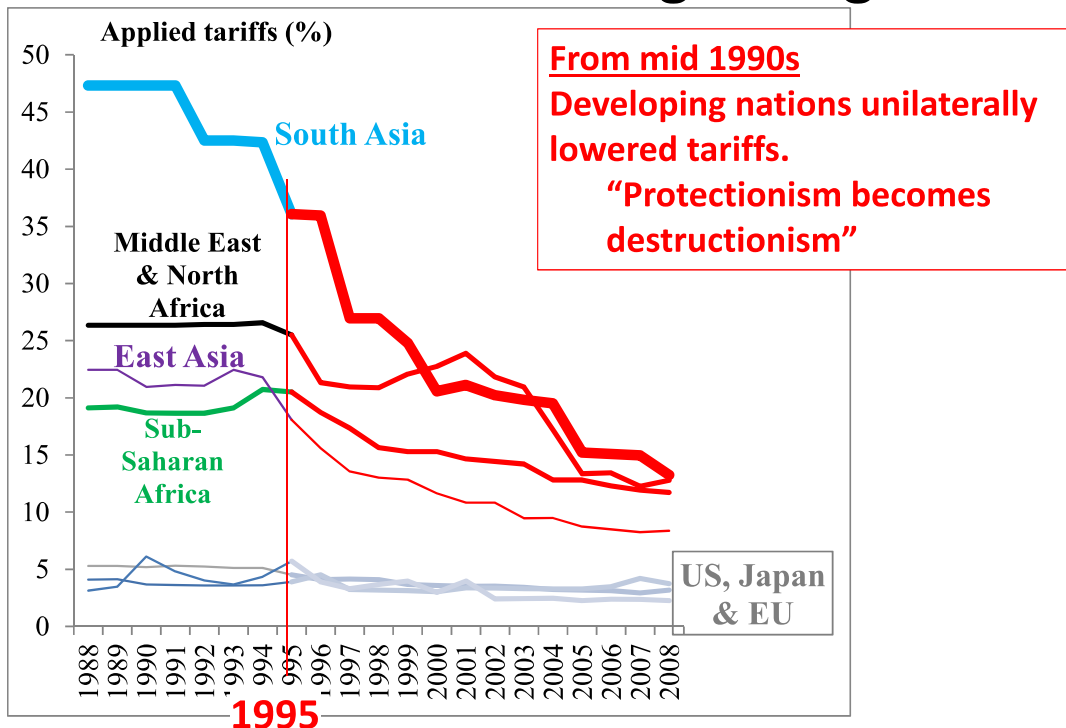
Trade policy changed

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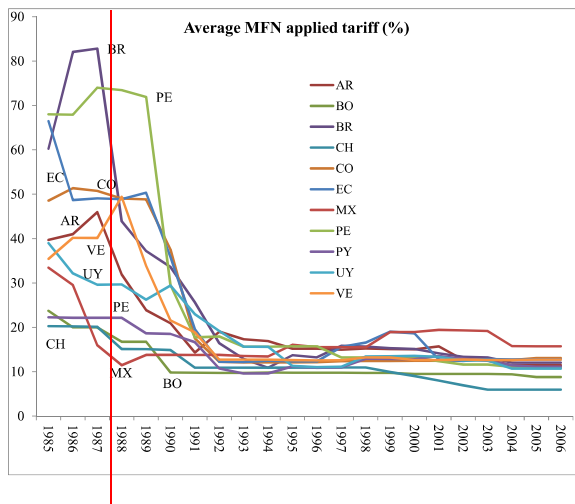
Tariffs up to 1995



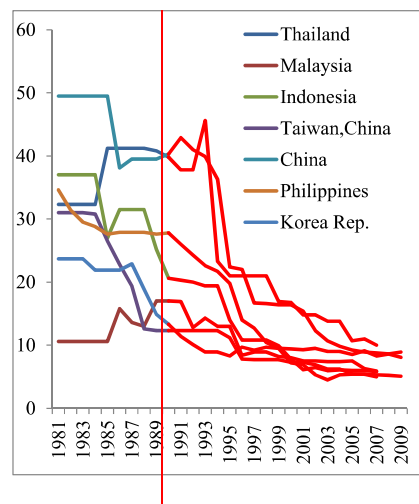
And then something changed



Focus on Latin America & East Asia

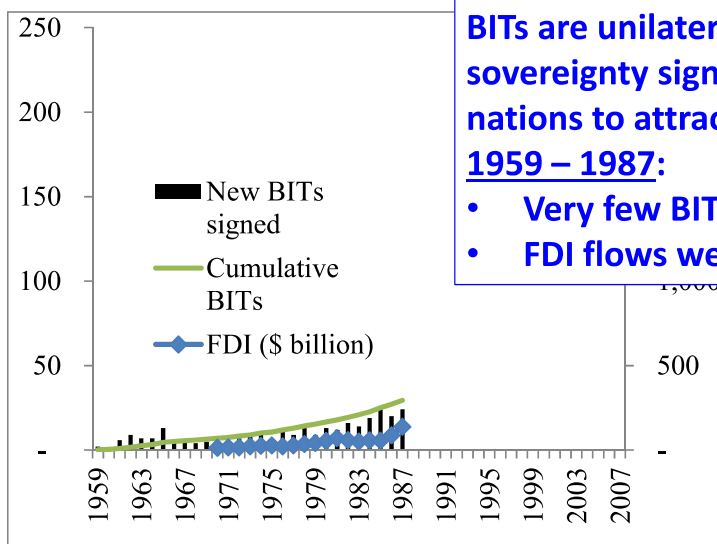


Late 1980s



1990

Bilateral Investment Treaties (BITs)

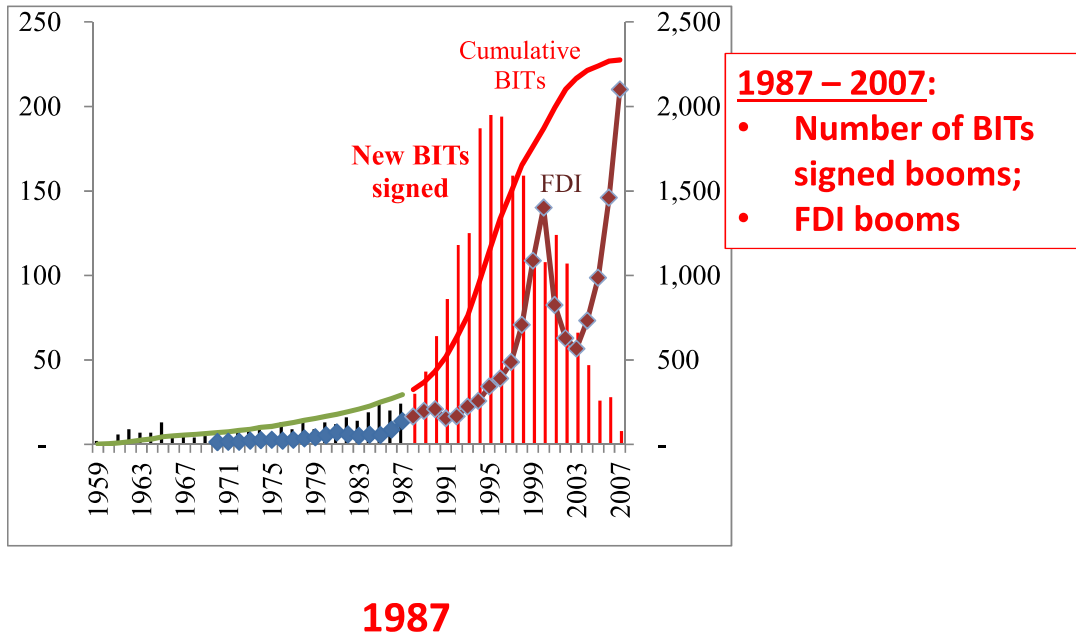


BITs are unilateral concessions of sovereignty signed by developing nations to attract inward FDI.

1959 – 1987:

- **Very few BITs signed;**
- **FDI flows were modest.**

And then something changed

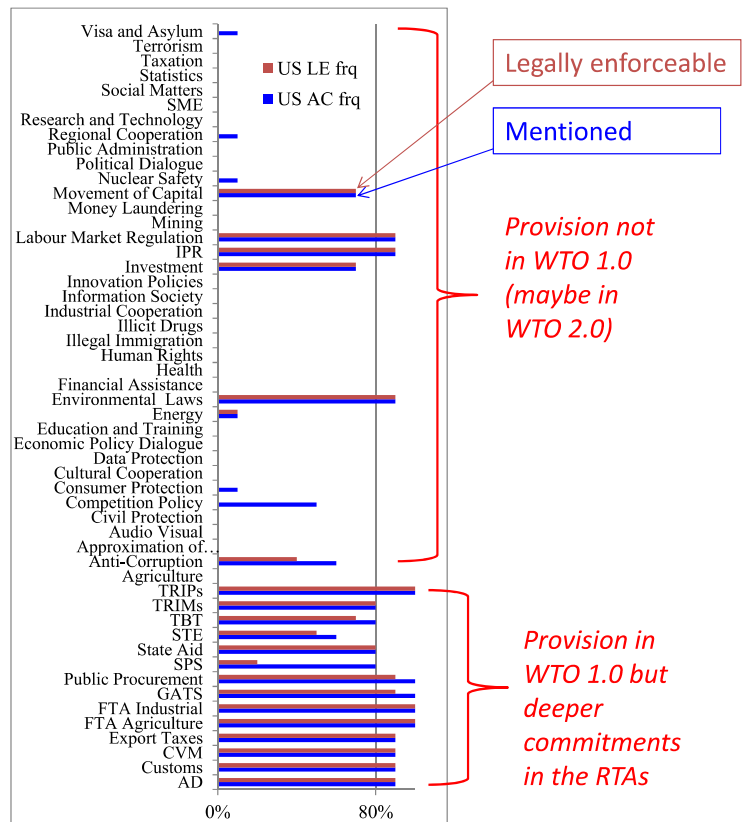


21st century RTA provisions:

Offshoring & Supply-Chain Disciplines

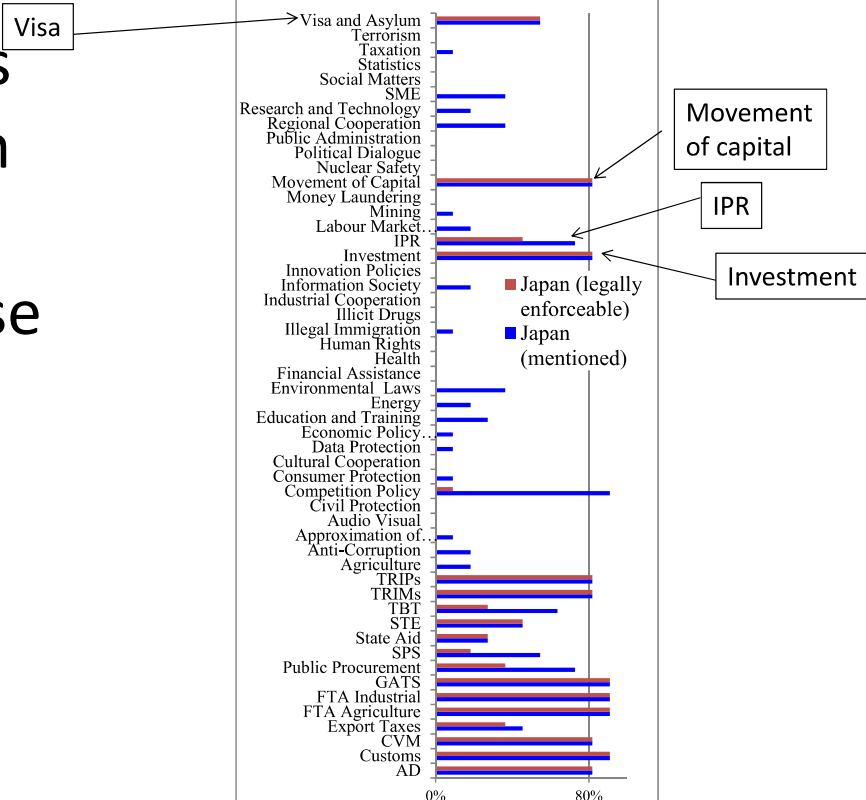
1. Disciplines: Connecting factories
2. Disciplines: Protecting tangible and intangible property.

Which deep RTA provisions matter? Revealed preference evidence from US RTAs (*share with given provision*)

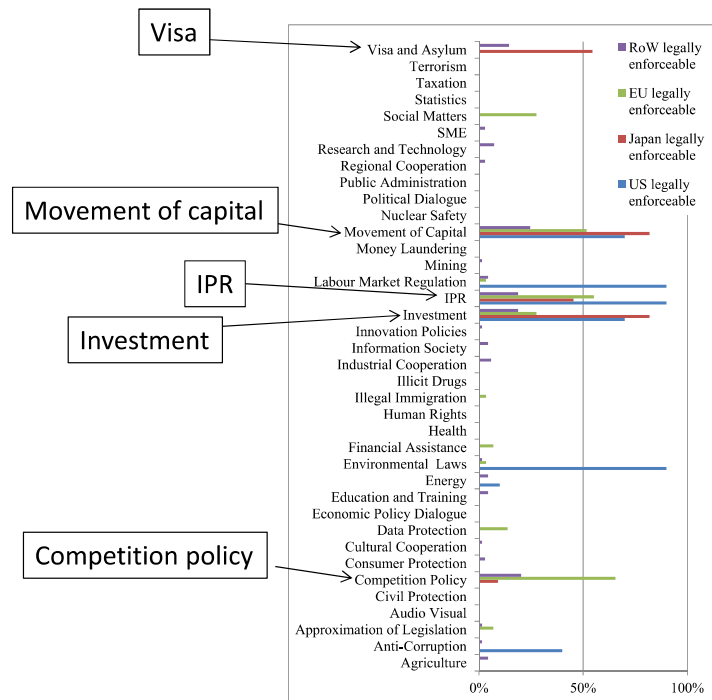


Source: WTO database on RTA provisions

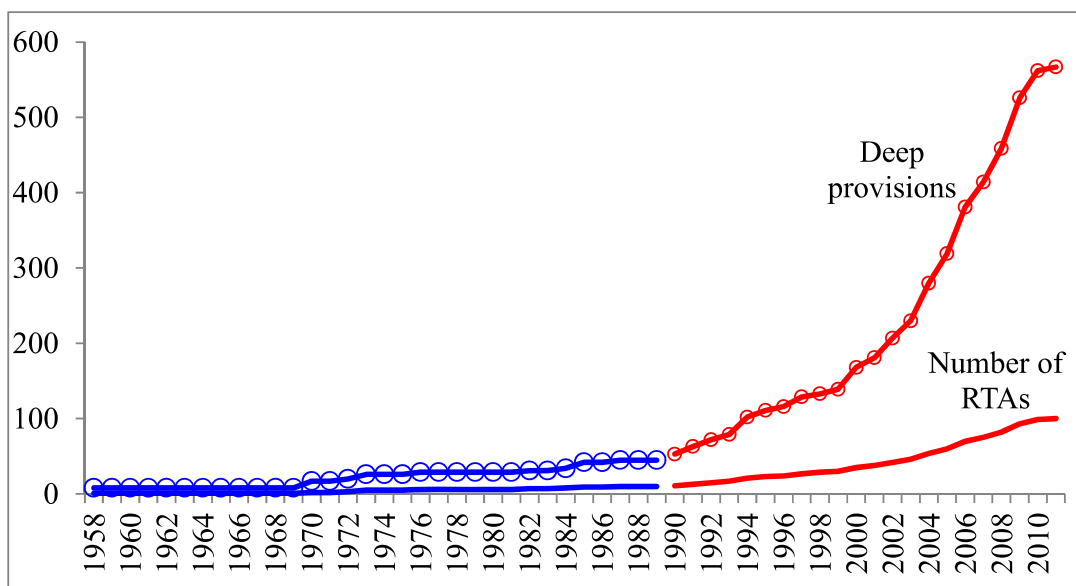
Japan's RTAs in WTO Database



Only beyond WTO measures



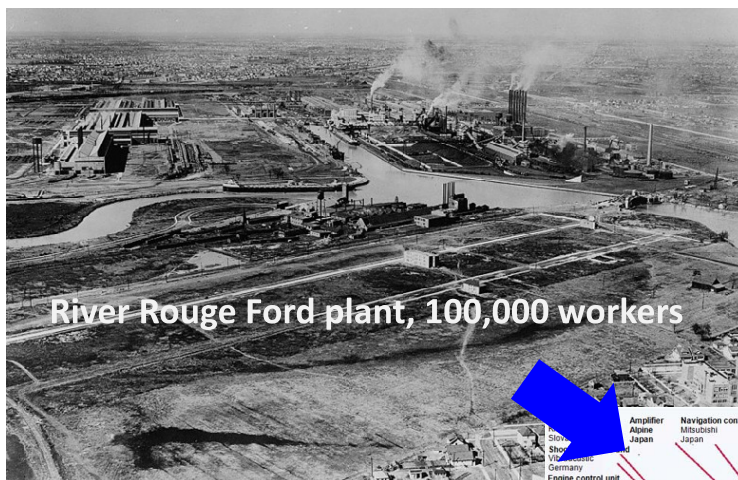
Deep RTAs



Manufacturing process changed

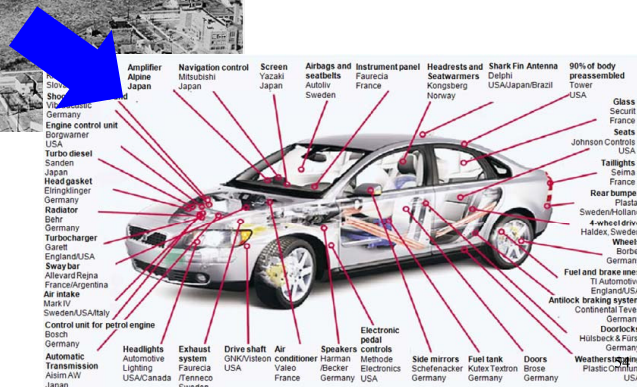
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Fractionalisation of manufacturing

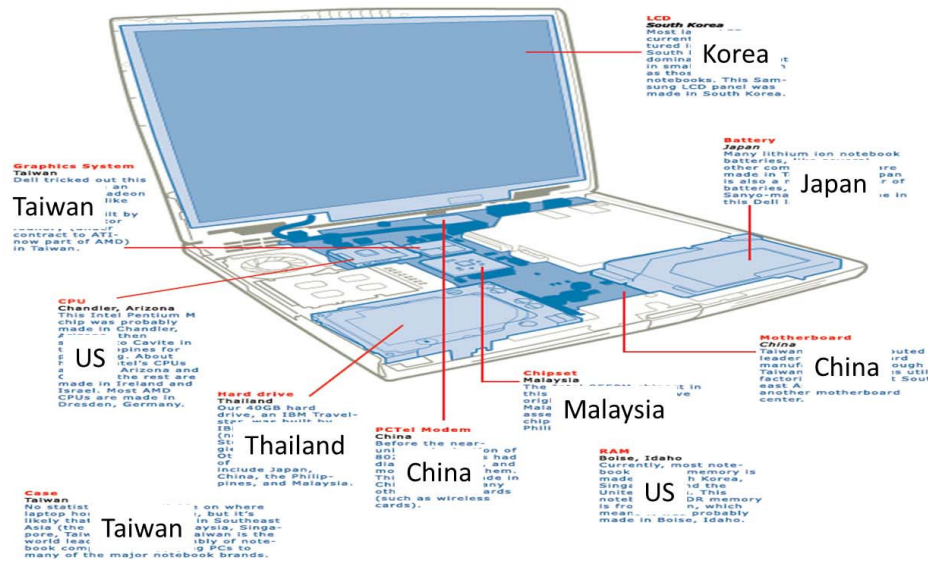


River Rouge Ford plant, 100,000 workers

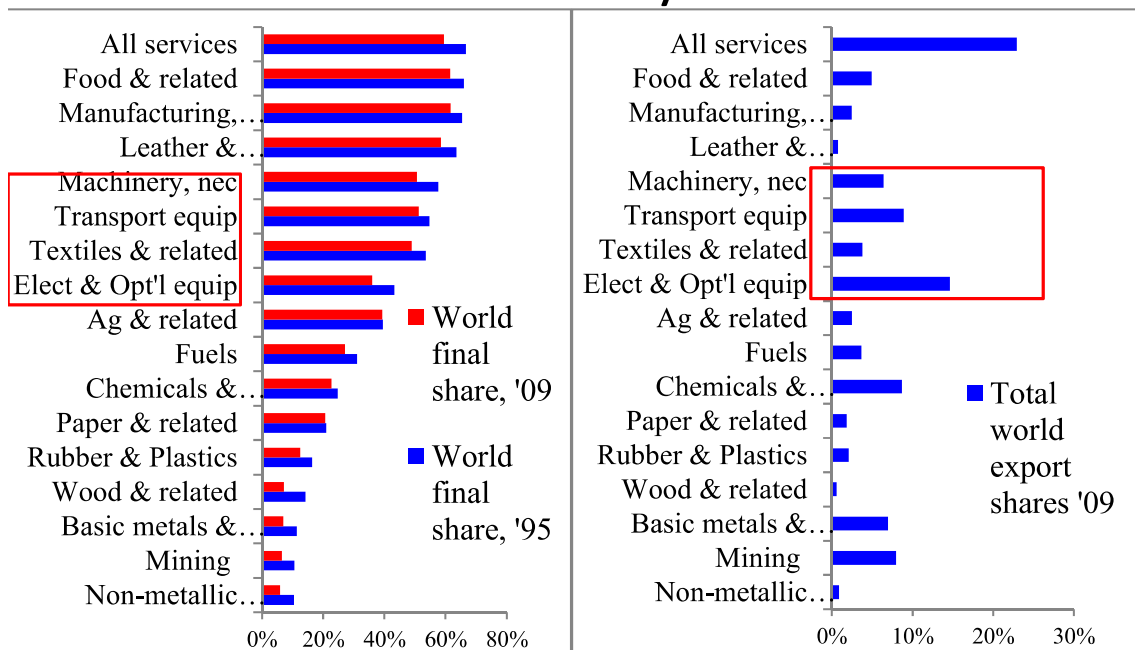
1.5 square kilometres of floor space, own docks, electric power plant, ore processing facility, 100km of RR.



Fractionalisation of manufacturing



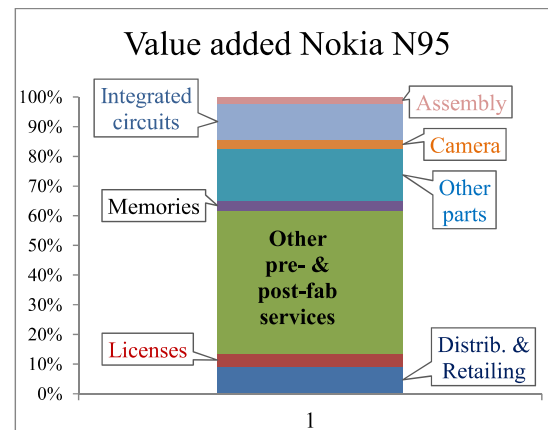
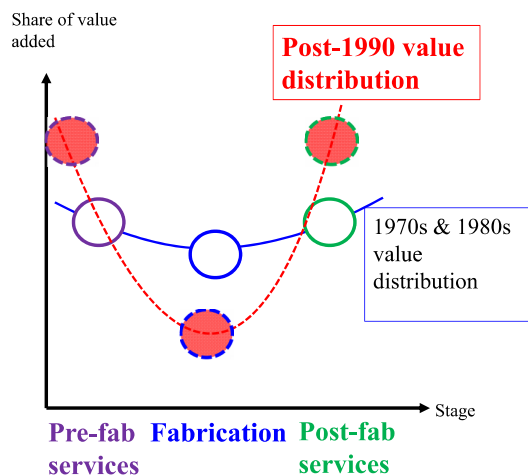
Not every industry: Supply-chain trade by industry



Value added shares changed

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‘Smile curve’: Distribution of value *a.k.a. Servicification*



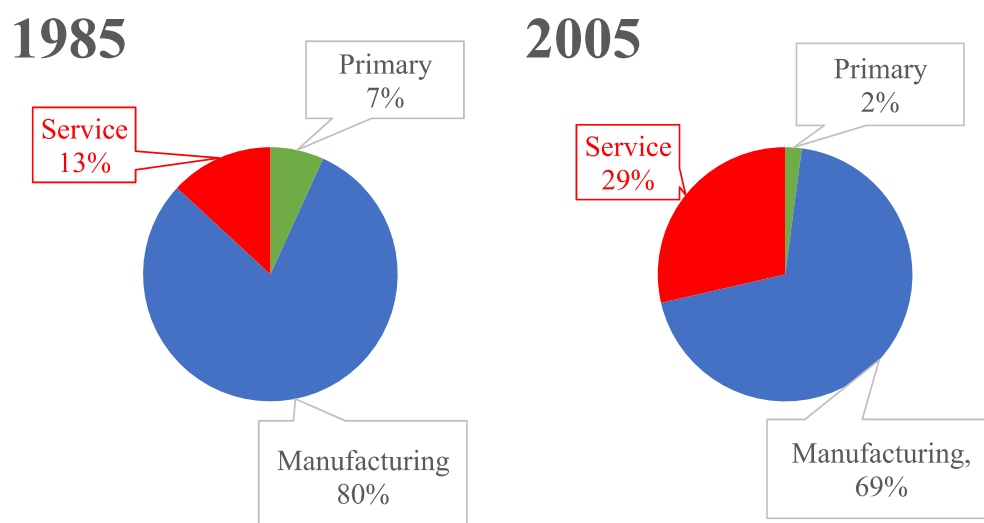
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Firm vs Economy-wide Smile Curve

- Problem: Economy-wide data is collected by sector, not by value chain stage.
 - One firm's downstream is another's upstream.
- Economy-wide 'Smile curve':
- We focus on sectoral value-added from:
 - Primary sectors;
 - Manufacturing sectors
 - Service sectors.
- Focus on exports rather than production.

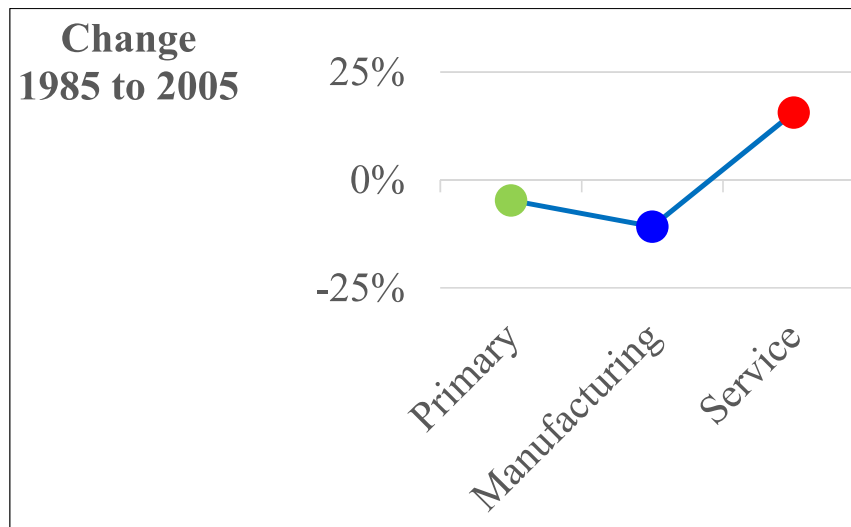
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Example: Japanese exports, value added source sectors

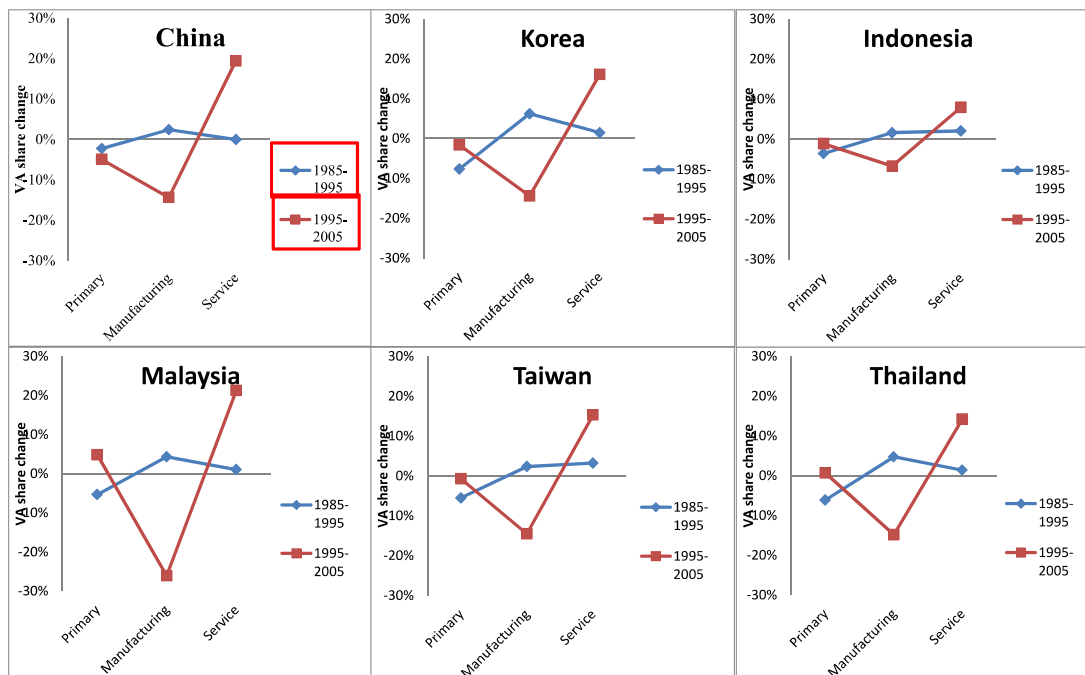


Source: Source: Richard Baldwin, Rikard Forslid and Tadashi Ito, "Unveiling the evolving sources of value added in exports", February 2015

Smile curve: Look at the change in source sector value added



Smile started in the 1990s

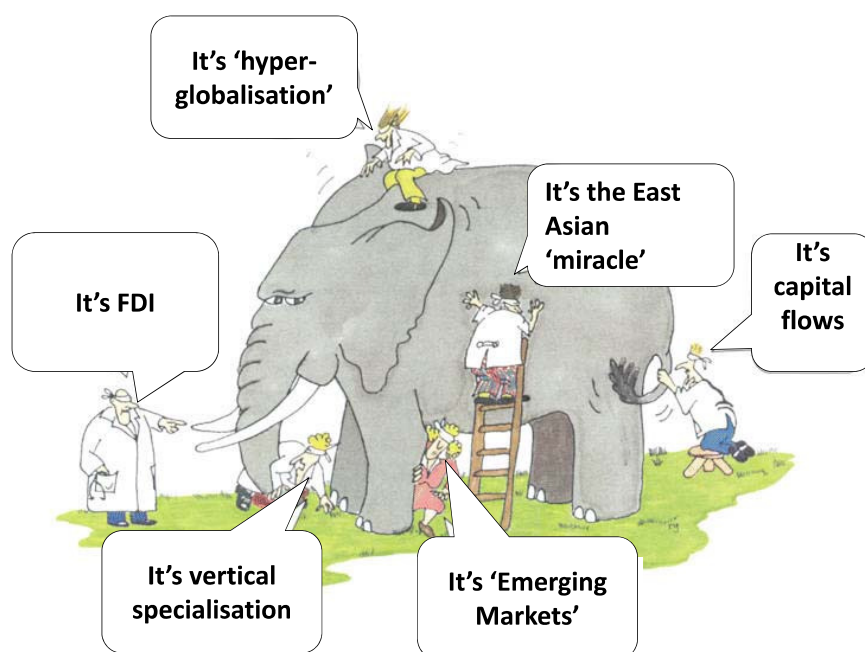


What changed globalisation?

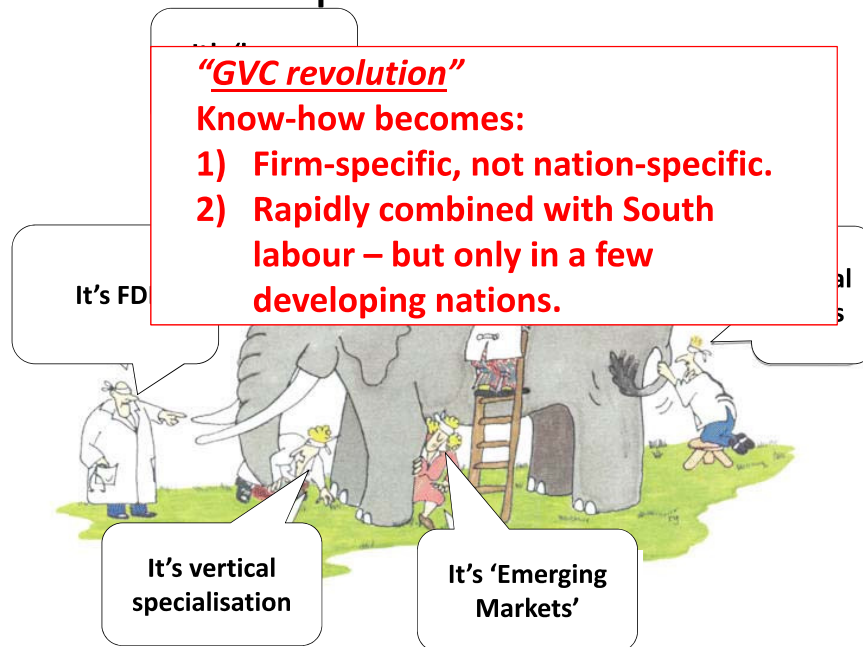


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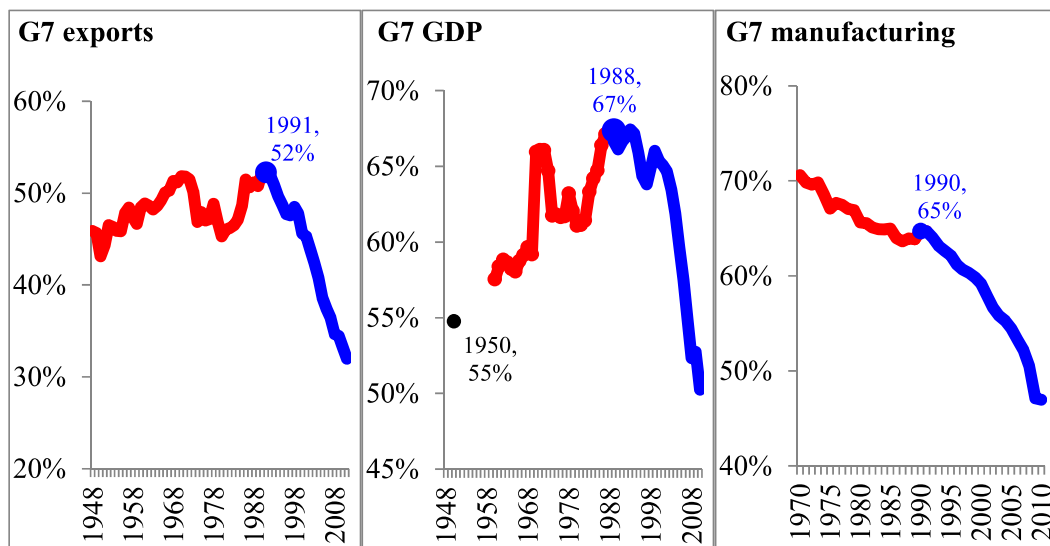
Buzzwords in lieu of analysis



Elephant = international movement of
firm-specific know-how.



Explain pre- and post-1990 globalisation

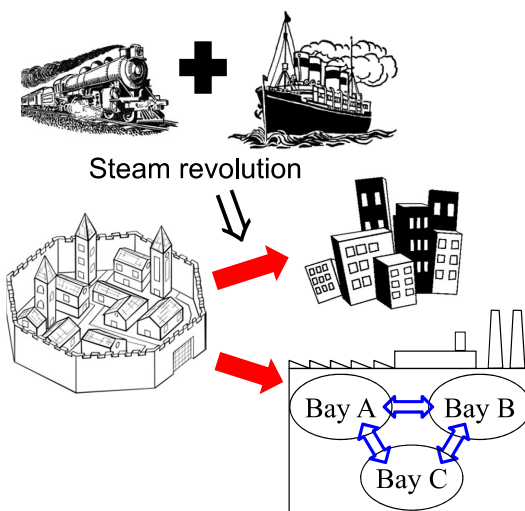


An new globalisation narrative

Globalisation as 2 processes, not 1

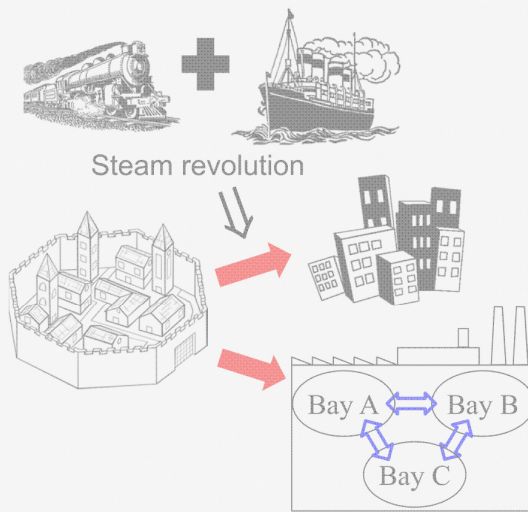


1st unbundling



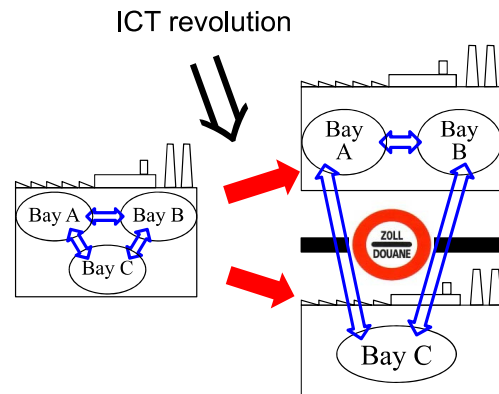
Global dispersion of production,
but local clustering into factories:
due to Coordination costs *not*
trade costs

1st unbundling



Global dispersion of production, but local clustering into factories:
Coordination costs not trade costs

2nd unbundling



Dispersion of production stages, but regional clustering ('factory Asia', 'factory EU', etc.)

Distance still matters

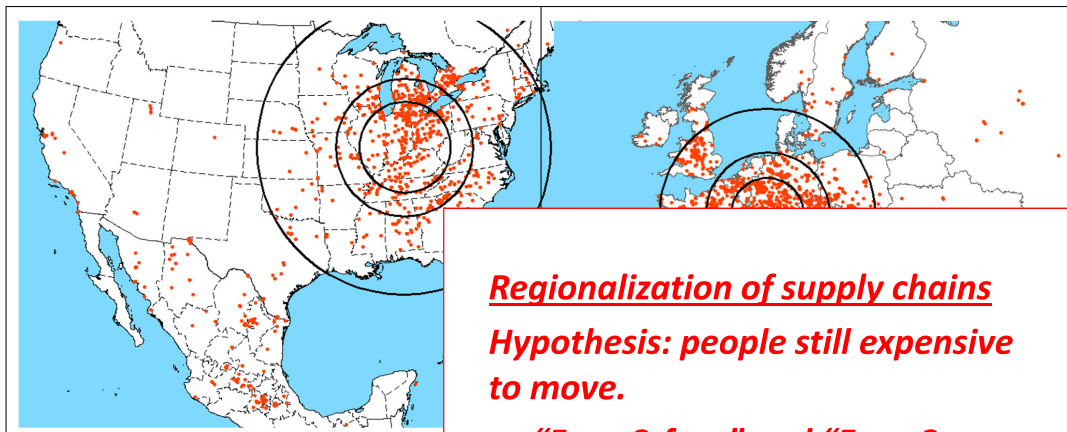


Figure 1: North American and Europe

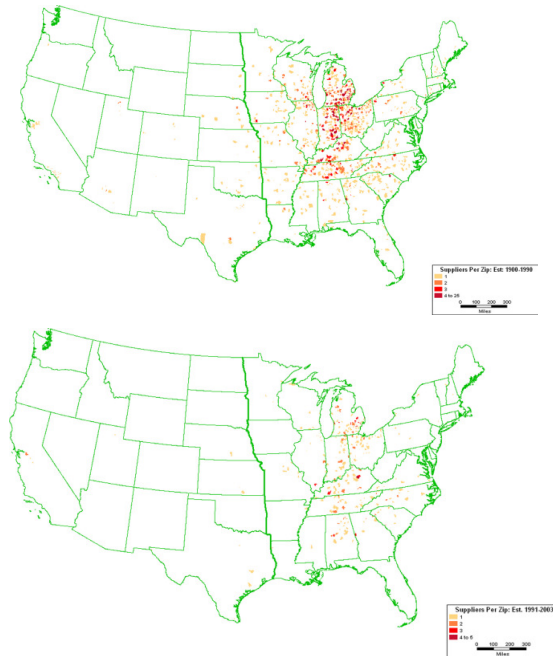
Regionalization of supply chains

Hypothesis: people still expensive to move.

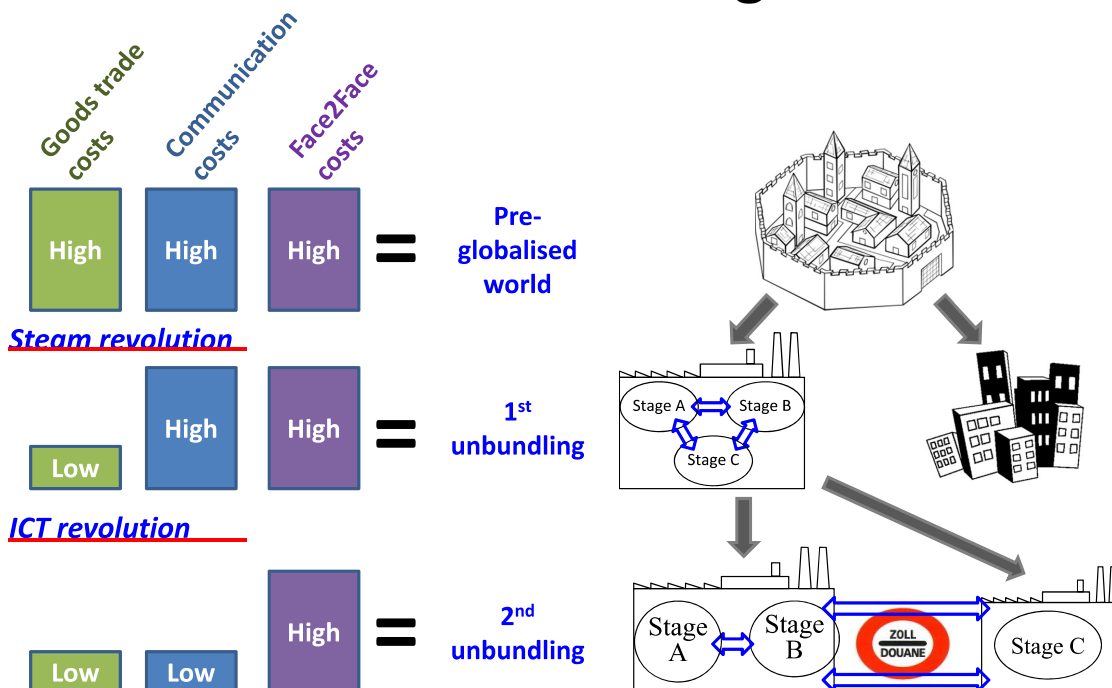
- **"Face-2-face" and "Face-2-machine" constraints.**

Short distances matter

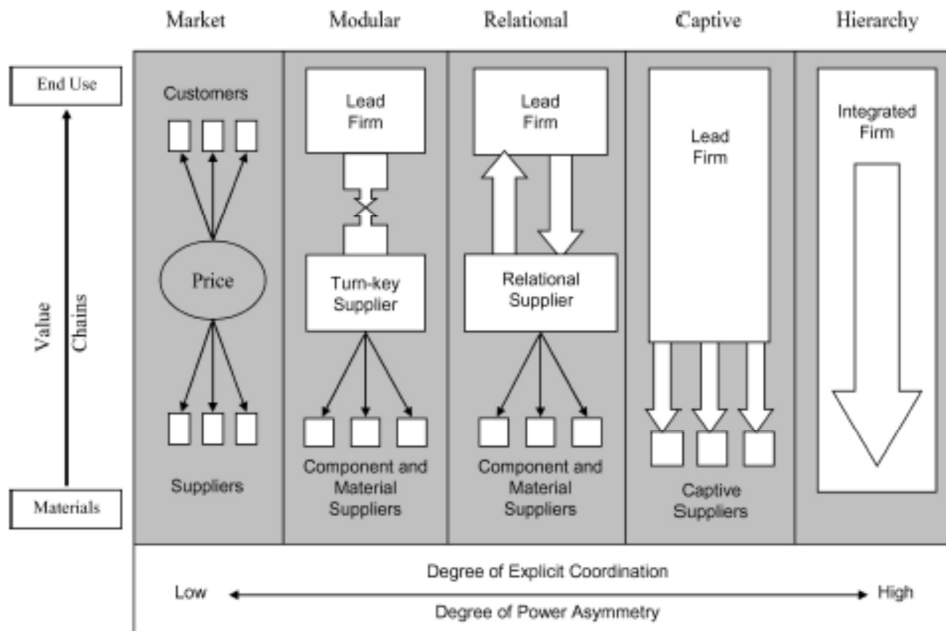
- Face2Face costs are not well proxied by distance.
- Misthinking distance in GVC participation.
- Nature of best GVC participation may depend upon distance in richer way than standard measures capture.



Globalisation: 3 cascading constraints



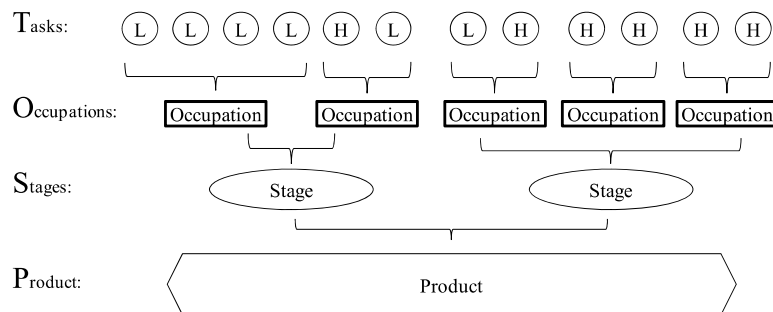
Firm organisation (read Gary Gereffi!)



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Changing landscape of manufacturing

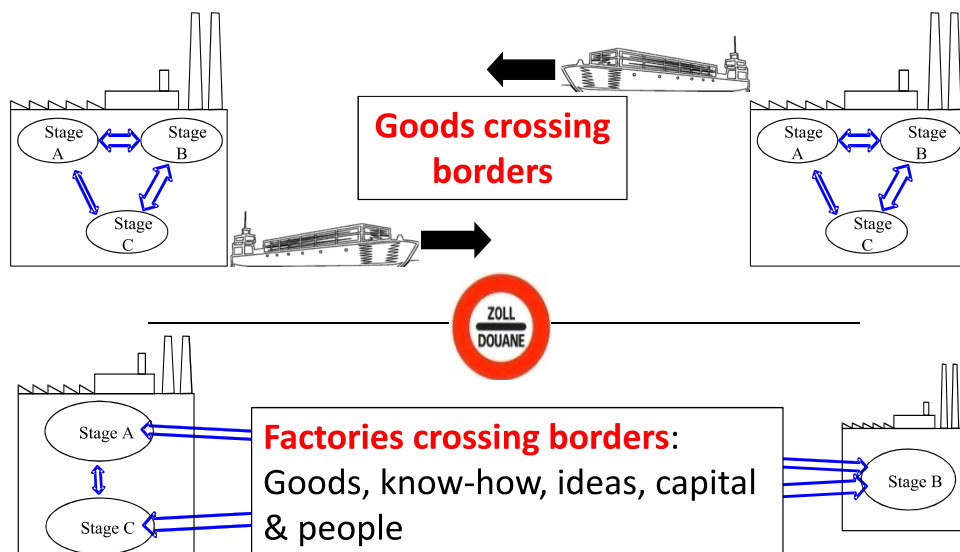
The TOSP framework



- Fractionalisation: Gains from specialisation vs cost of coordination:
 - Better communication tech (CT) reduces cost of specialisation;
 - Better information tech (IT) reduces benefits of specialisation (CAD/CAM, robots, etc.)
- CT & IT transform UK manufacturing jobs ...

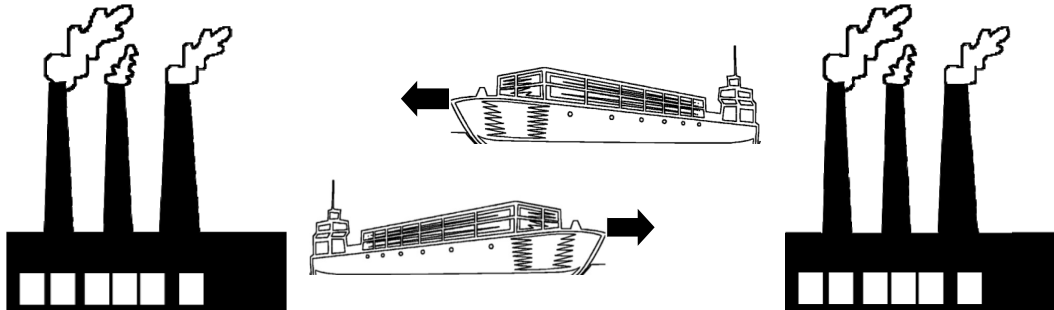
“2nd unbundling”: 3 basic differences

#1: Trade is not just “Goods crossing borders”, also “Factories crossing borders”



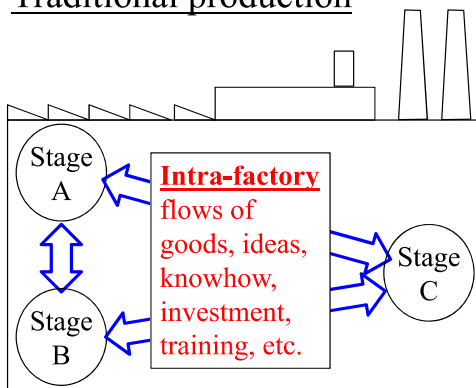
Common view of GVC

Trade in parts & components

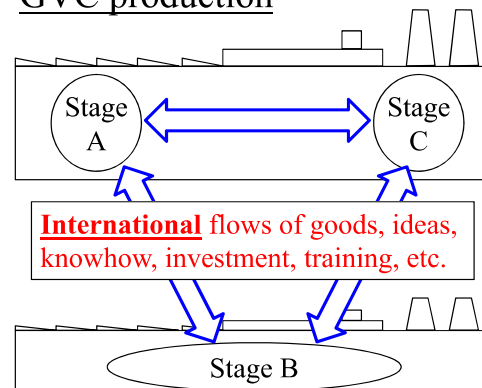


Why it matters: Technology boundaries

Traditional production



GVC production



#2: De-nationalised comparative advantage (Hi-tech goes to lo-wage)

Apple IIc made in Dallas area, 1980s



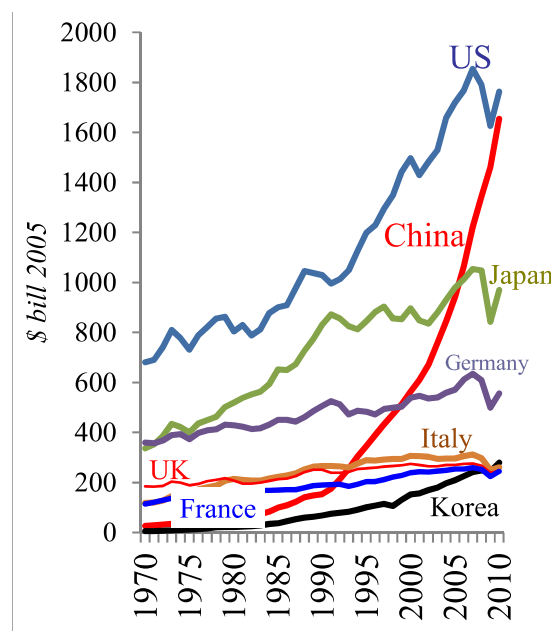
Apple's know-how + Chinese labour



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Mix & match comparative advantage

- Nation is no longer most natural unit of analysis for comparative advantage.
- Factors that stay in nations affect comparative advantage, but also factors that enter.
- GVC determinants are comp.adv. determinants.



#3: Globalisation with 'finer degree of resolution

Globalisation's impact is:

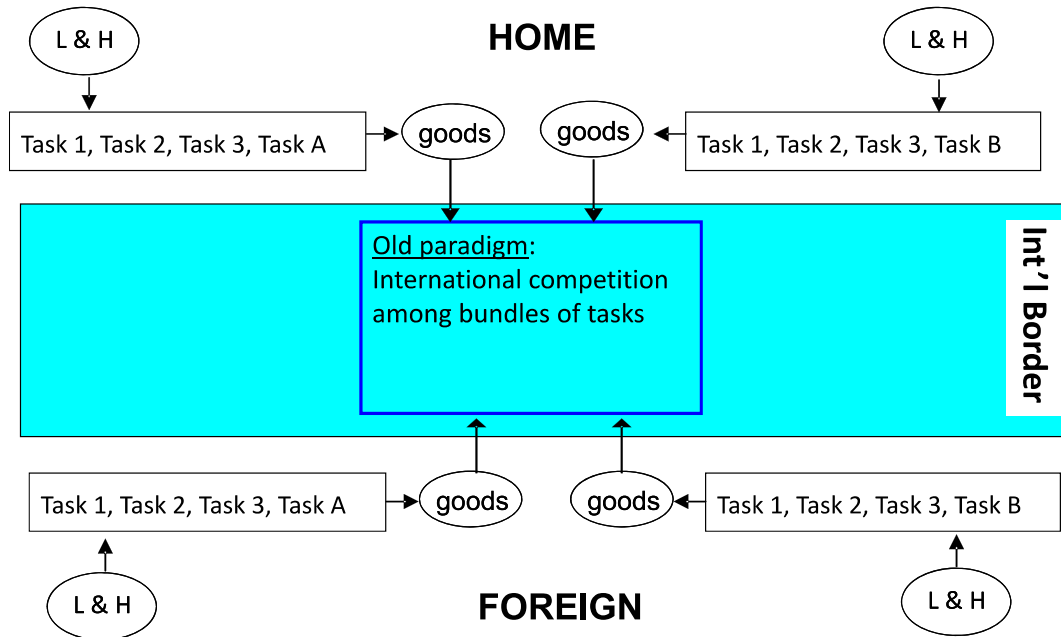
- More sudden;
- More individual;
- More unpredictable;
- More uncontrollable.

More individual

The old & new paradigms

Unskilled intensive sector (X)

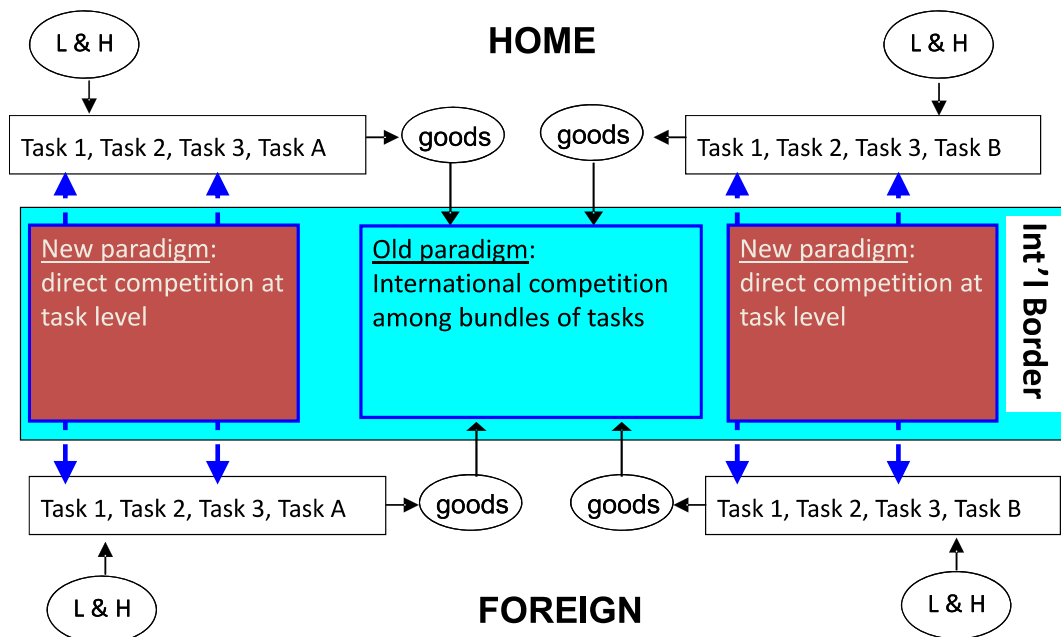
Skill intensive sector (Y)



The old & new paradigms

Unskilled intensive sector (X)

Skill intensive sector (Y)



More uncontrollable

- Barriers are not controlled by governments.
- ICT revolution;
- Offshoring basically unstoppable;
- Others are doing it, so we must too.

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Basic economics: 2nd unbundling

Economics of 2nd unbundling

- 2 ways of recombination hi-tech & low-wages:
 - Direct ([tech 'sharing'](#)): North know-how moves to South labour; e.g. offshoring.
 - Indirect ([fractionalisation](#)): North know-how moves to South in components; trade in parts & components.

END

Thank you for listening.