

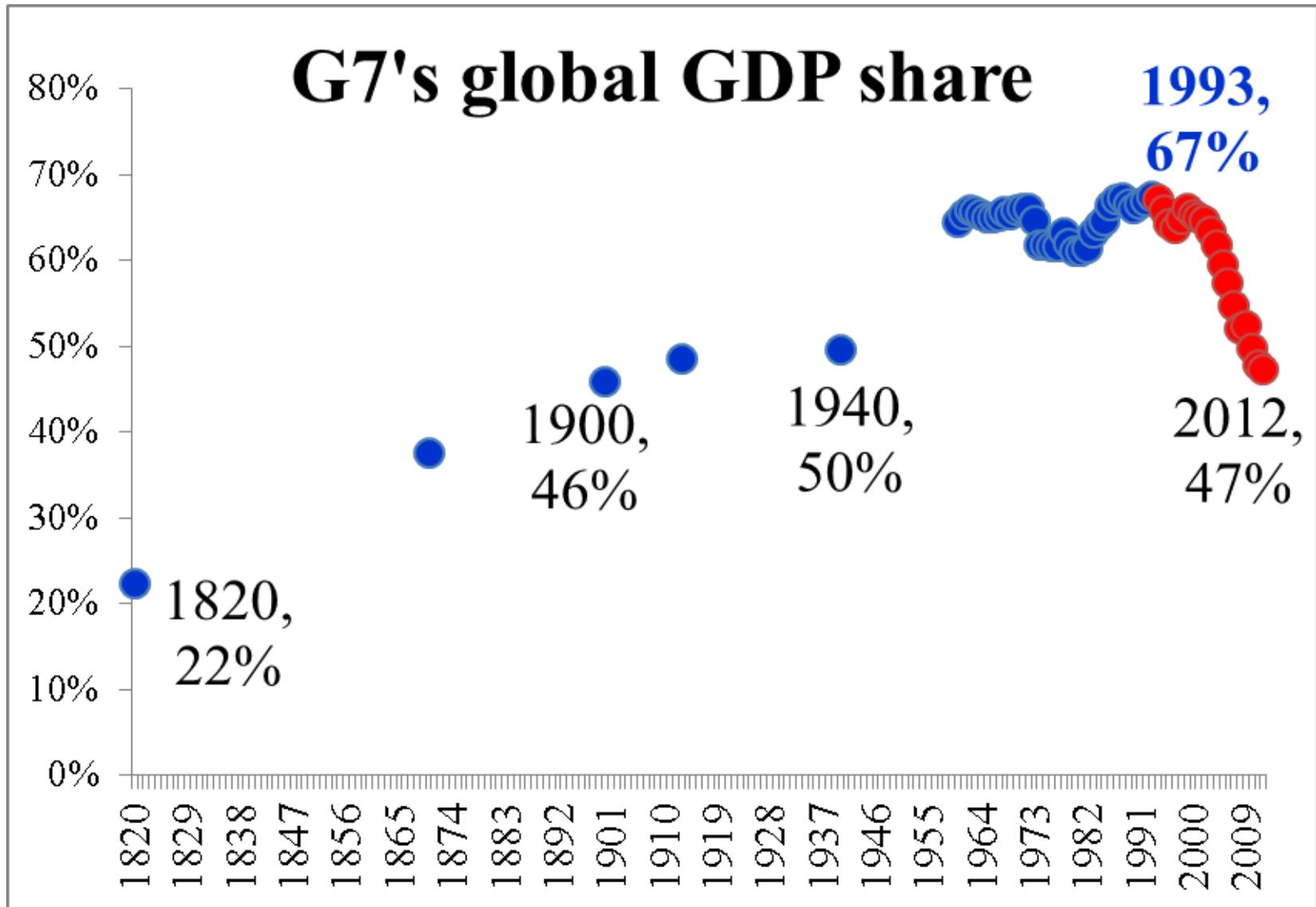
# Global value chain revolution: *Implications for central banking*

Richard Baldwin

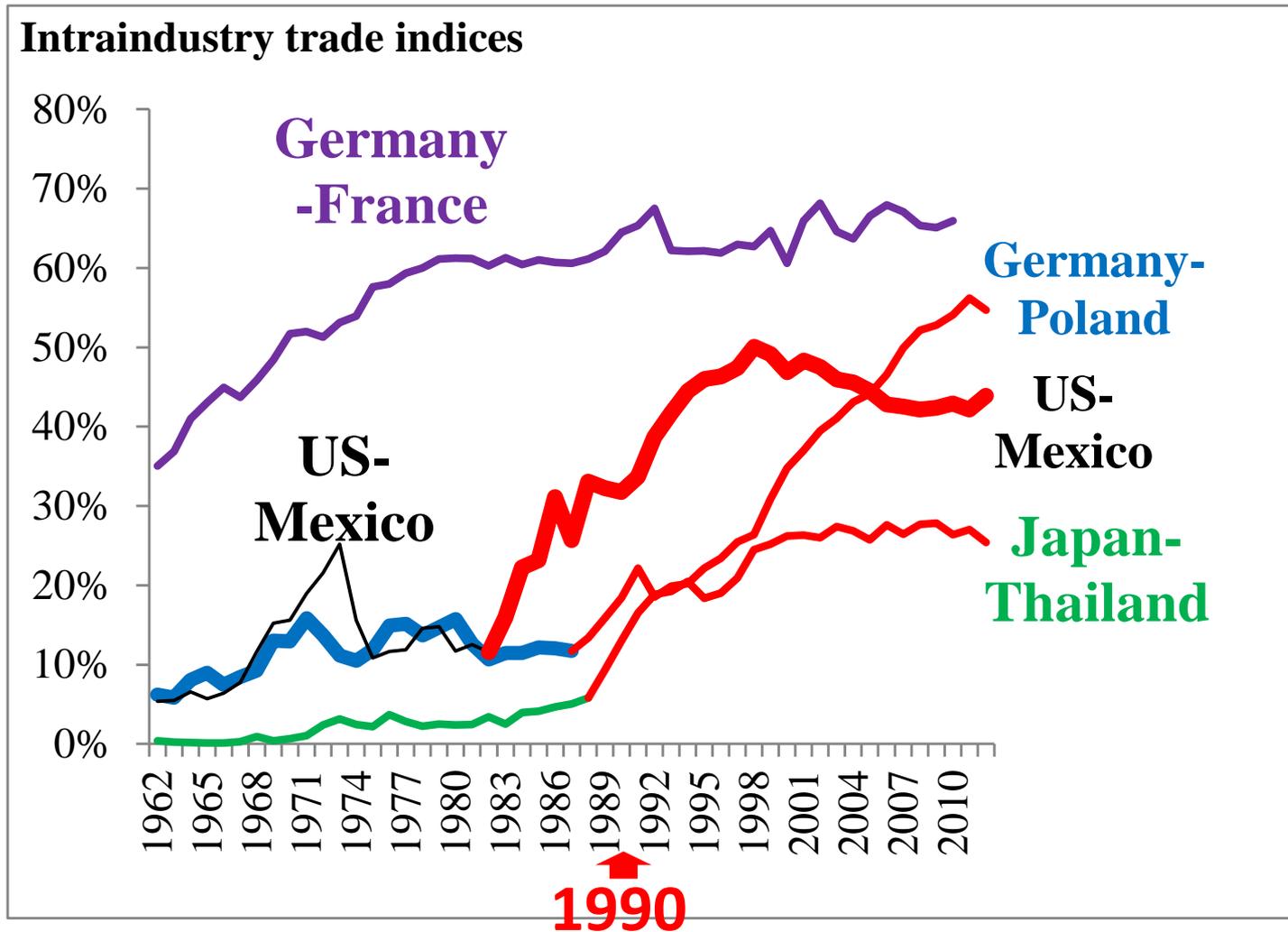
*Professor of International Economics, Graduate Institute,  
Geneva*

*Director of CEPR*

# Globalisation changed around 1990



# Nature of trade changed: Intra-industry trade (IIT)

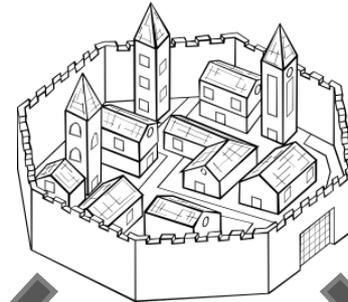


# Globalisation: 3 cascading constraints

Goods trade costs  
Communication costs  
Face2Face costs



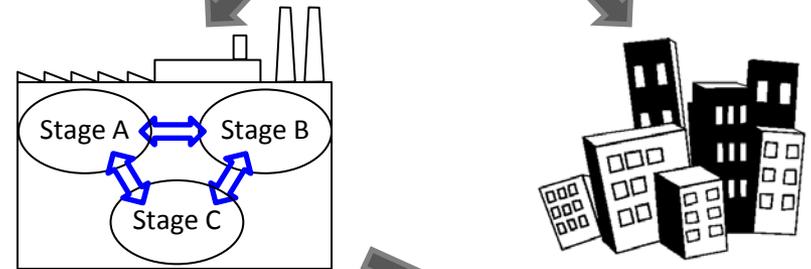
= Pre-globalised world



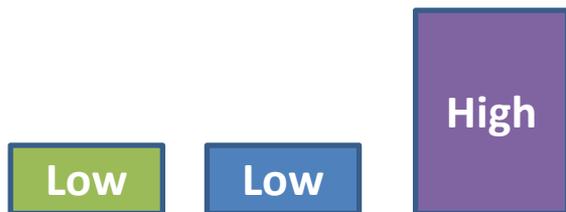
Steam revolution



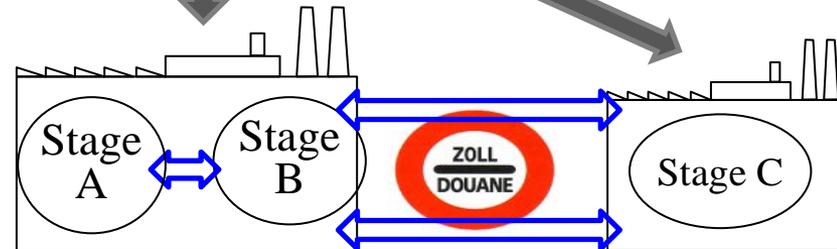
= 1<sup>st</sup> unbundling



ICT revolution

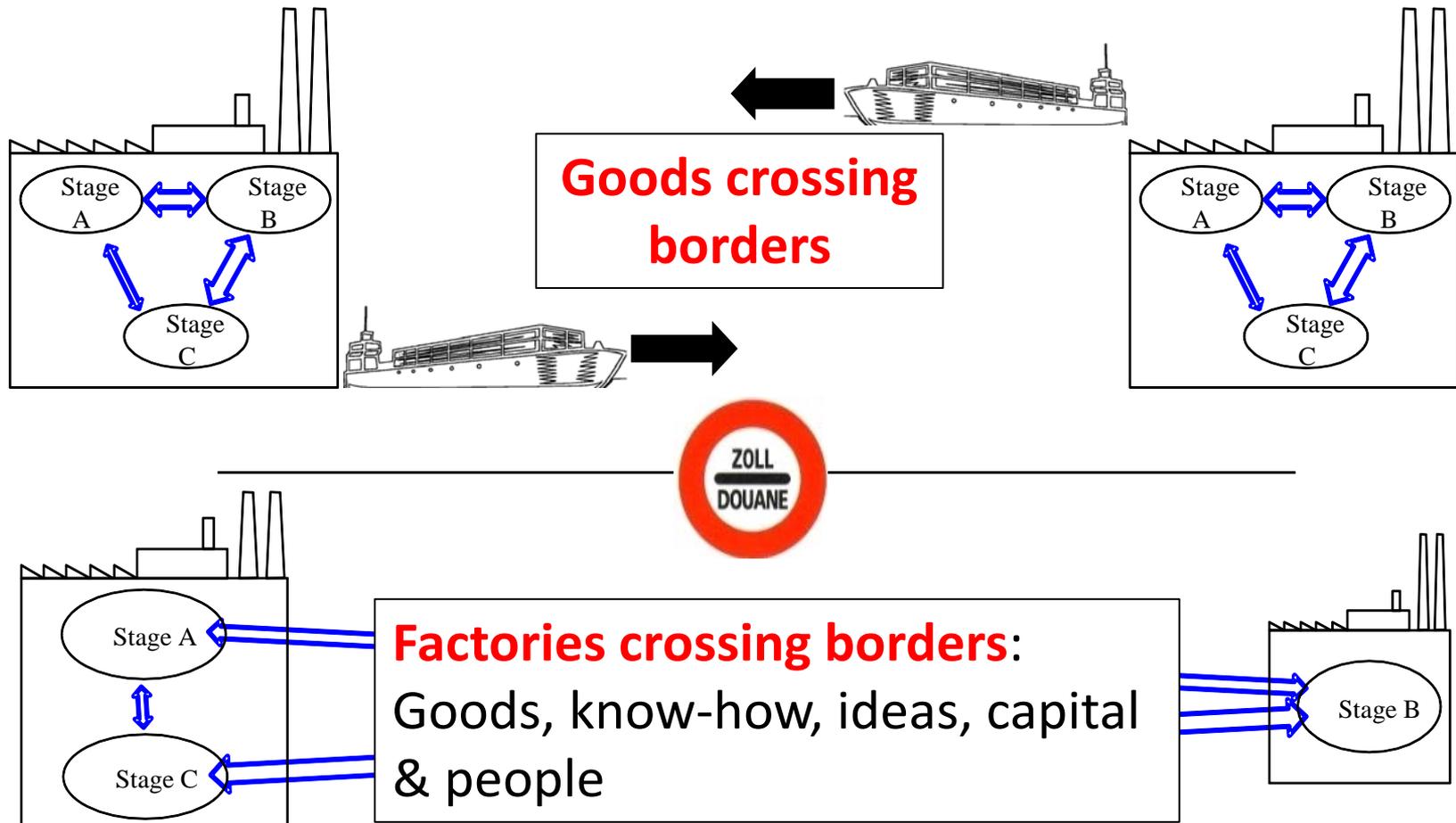


= 2<sup>nd</sup> unbundling



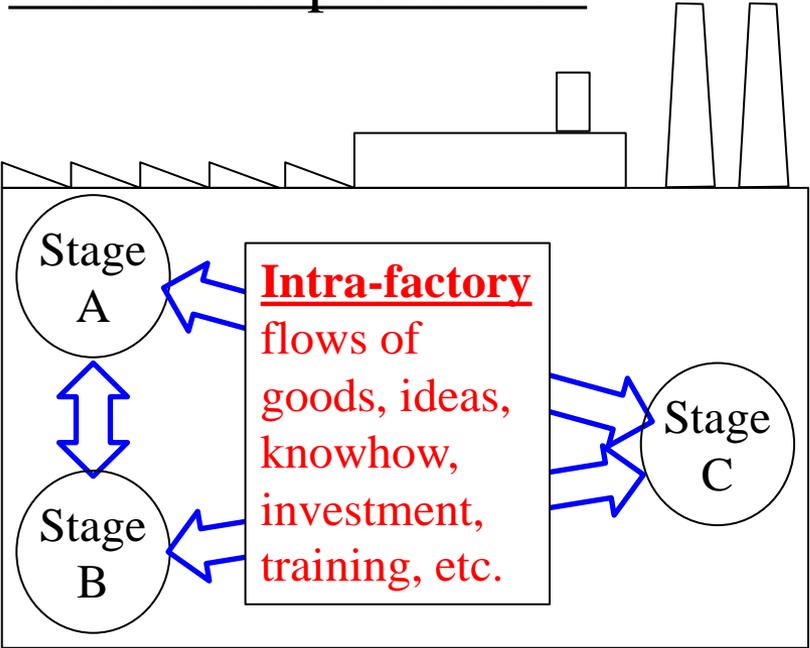
“2<sup>nd</sup> unbundling”: 3 basic differences

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

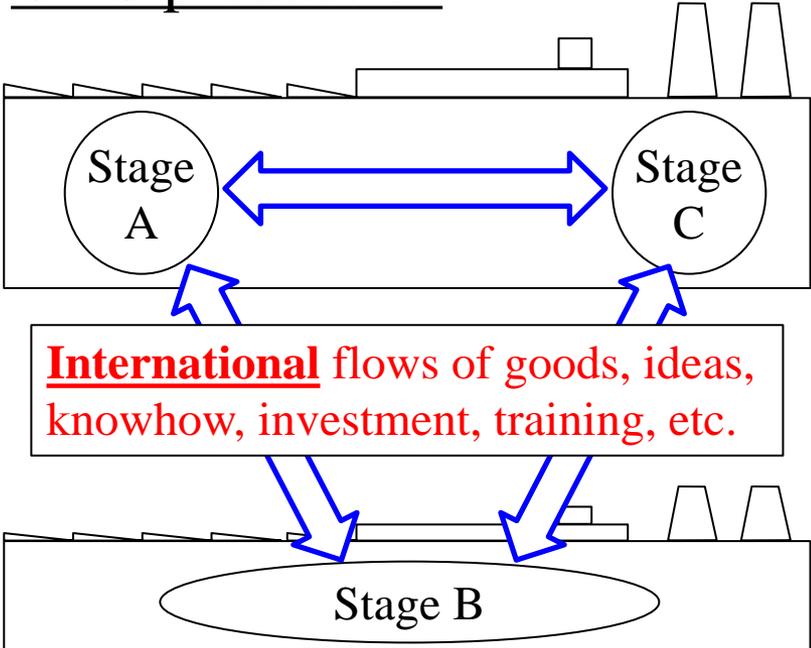


# Why it matters: Technology boundaries

## 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 + US labour



Apple's know-how + Chinese labour



# #3: Globalisation with “finer degree of resolution”

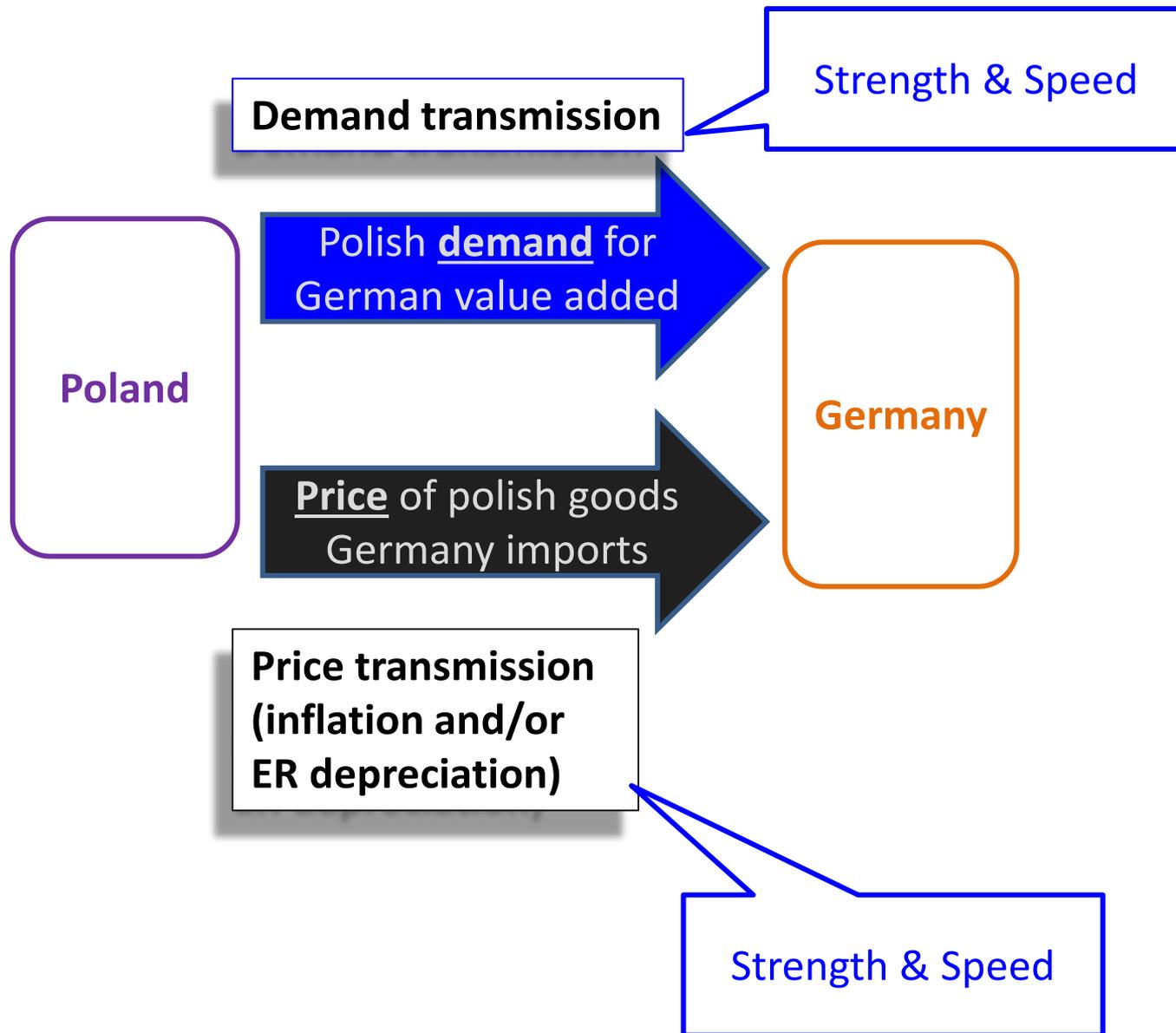
Globalisation’s impact is:

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

# Some implications for central banking

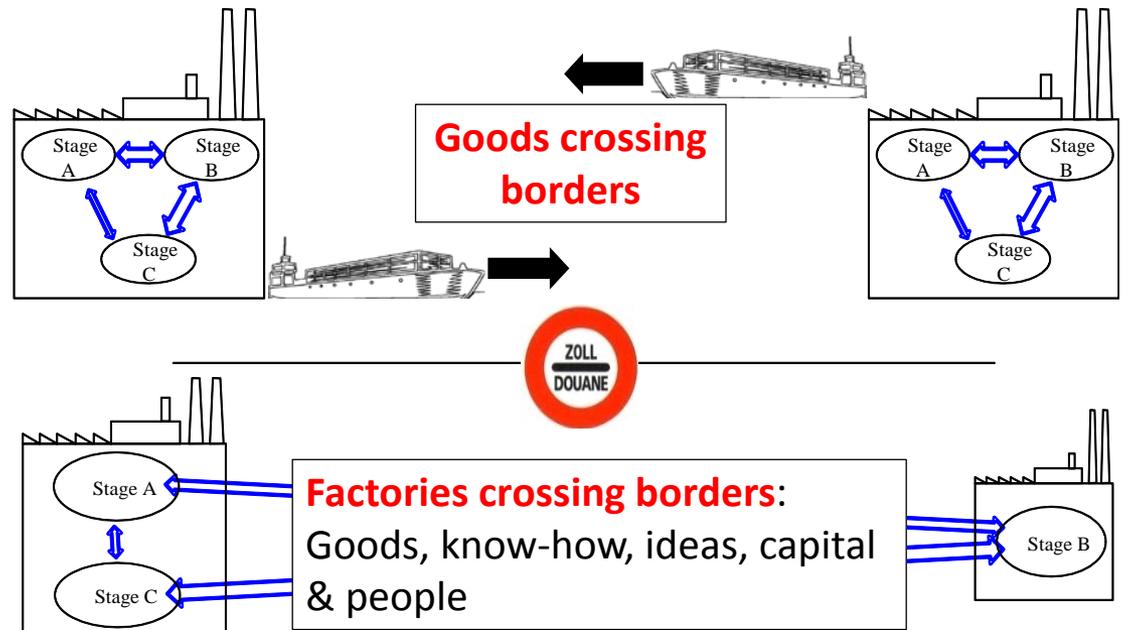
International linkages changed by the  
GVC revolution

# International macro trade linkages



# GVCs may matter for:

1. Measurement of strength of linkage.
2. Measurement of 3<sup>rd</sup> nation effects.
3. Speed of transmission (within firm as opposed to arm's length or market transaction)



# Some macro applications

- Measurement of effect real exchange rate.
  - Value added trade, not gross trade.
- Determine who is the ultimate purchaser of our value added exports for demand shocks.
  - Whose GDP shock boosts our demand?
  - Value added trade, not gross trade.
- International demand shock transmission.
  - New Twist: ‘Bullwhip’ effect
- Wage formation.
  - Sudden, individual, unpredictable => wage bargaining
- Global growth factors.

# Global growth: *New Kuznets Cycle?*

# Old Kuznets Cycle

- 19<sup>th</sup> century:
  - North America: Abundant land & scarce labour;
  - Europe: Abundant labour & scarce land.
- Mass migration → Ag boom in US.
- Ag boom triggers broad growth & more migration.

# New Kuznets Cycle

- Around late 1980s
  - ‘South’: Abundant labour & scarce knowhow;
  - ‘North’: Abundant knowhow & scarce labour;
- ICT revolution & global value chains → manufacturing boom in China and few others (‘Rising 7’).
  - But only where the GVCs operated.
  - Triggers broader growth:
    - R7 = 45% of world population.
  - Triggers commodity ‘super cycle’

# END

- Thank you for listening.

- Please visit:

[www.VoxEU.org](http://www.VoxEU.org)

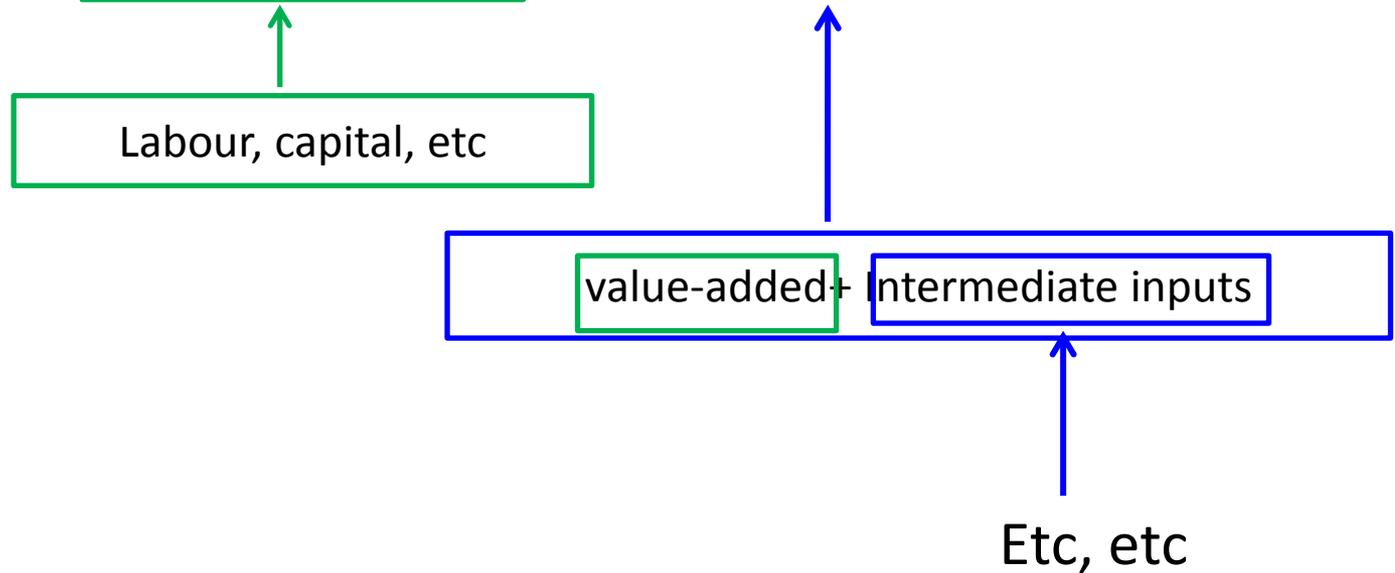
“Research-based policy analysis and commentary by leading economists”

Extra slides for Q&A

# Value-added trade vs 'gross' trade

Export value =

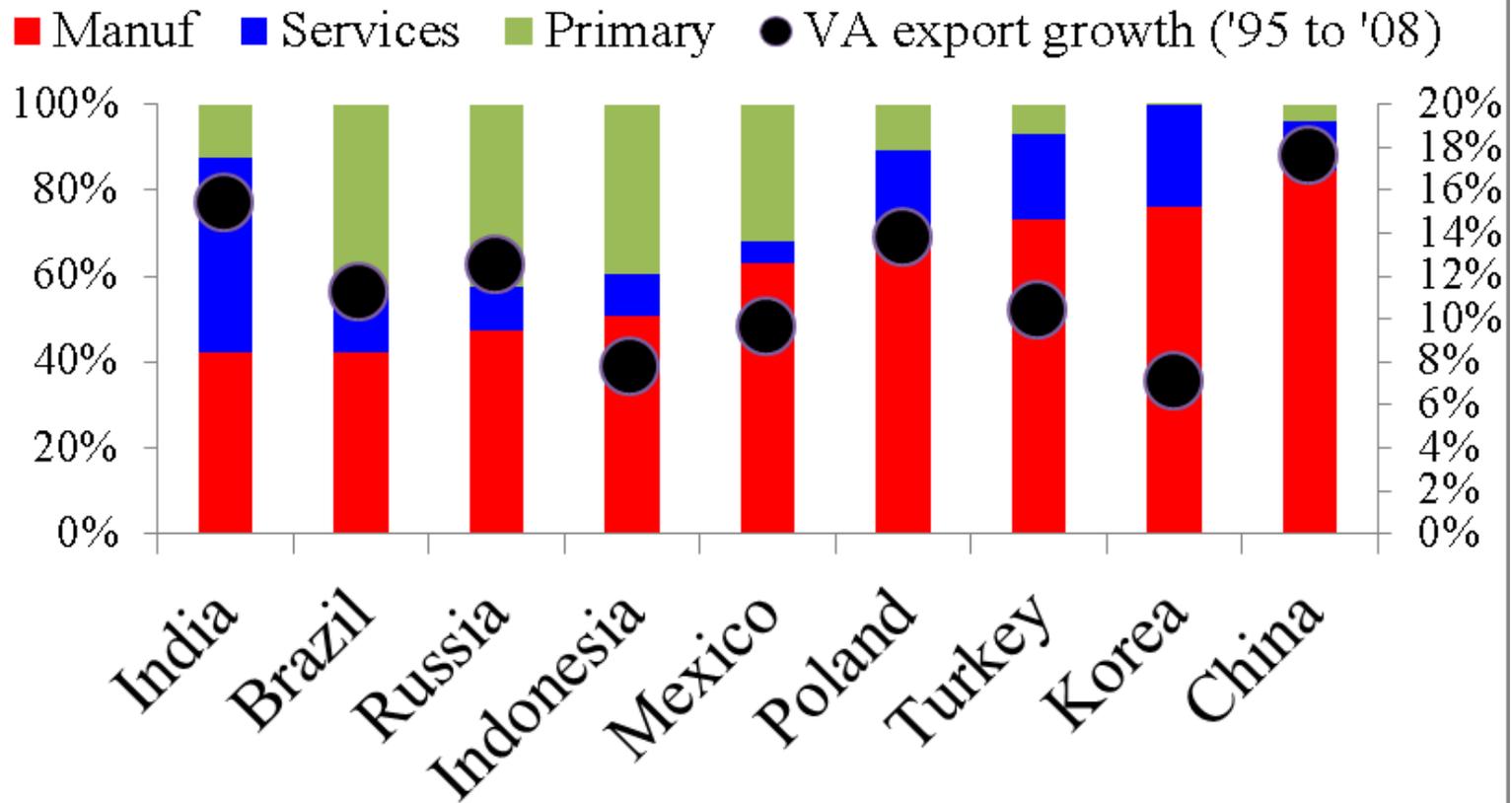
the cost of value-added + intermediate inputs.



*Iterate to converge (or matrix algebra)*

# Source of Value-Added Export growth (10 GDP gainers) 1995-2008

Domestic VA in exports, by source sector



# Rethinking the commodity supercycle

Price of all commodities  
(10 year average rate of return)

*At no time in the last 200 years have commodity prices risen as fast and as high as in the last decade without a sharp decline*

