RISING TIDE

Is Growth in Emerging Economies Good for the United States?

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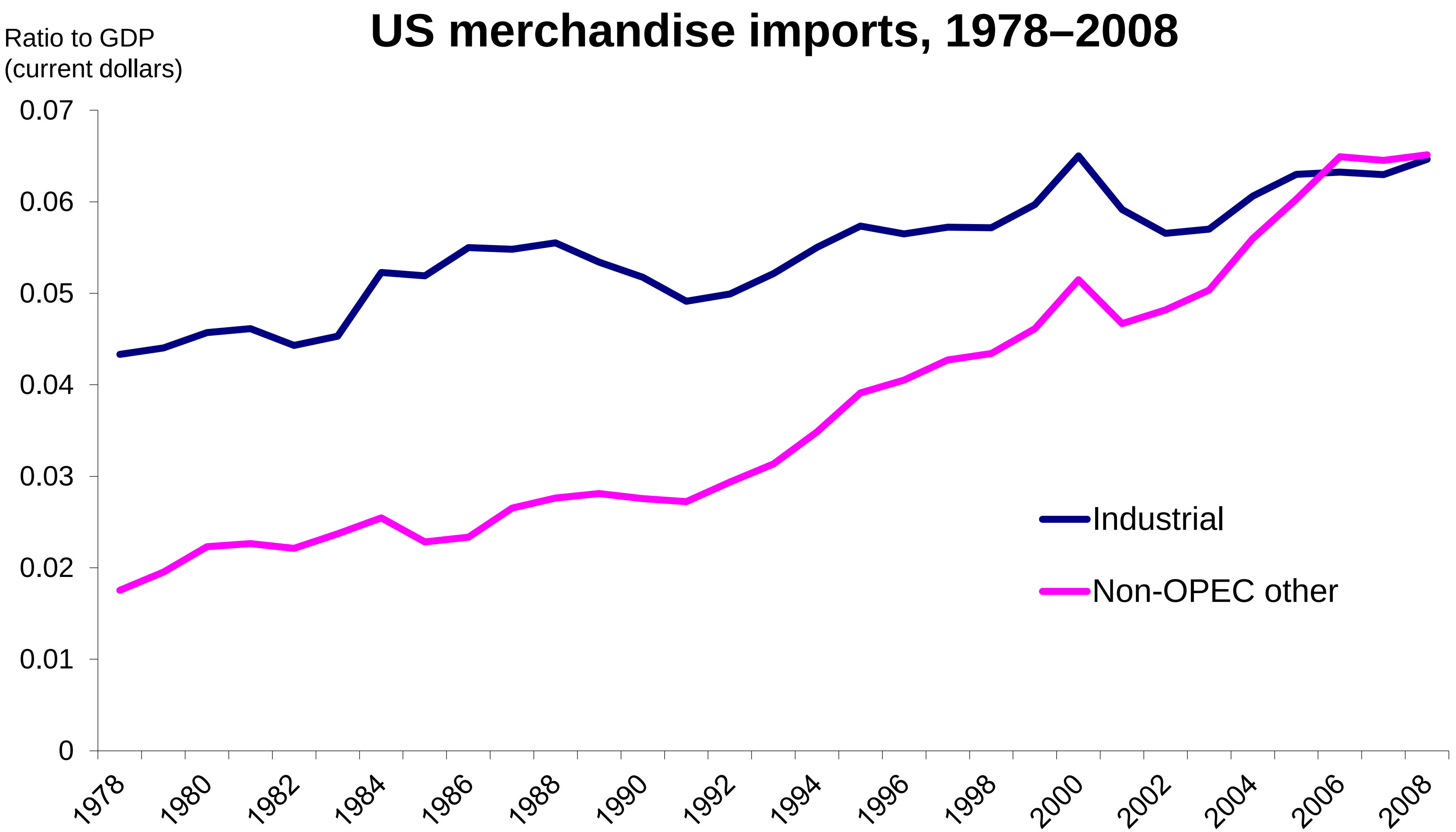
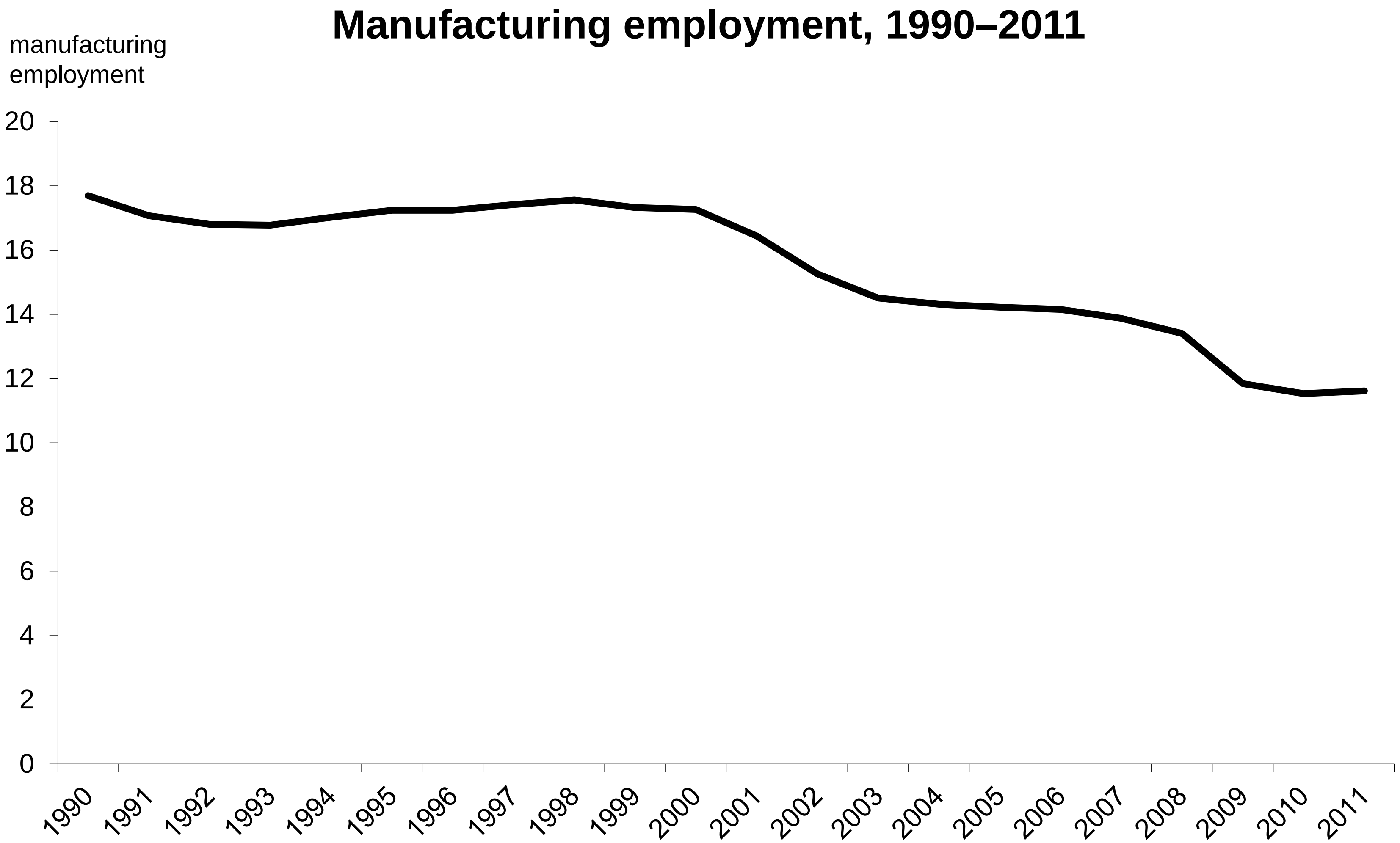
US imports from emerging economies have grown rapidly



OPEC = Organization of Petroleum Exporting Countries

Source: Bureau of Economic Analysis

Manufacturing employment since 2000 down almost 6 million



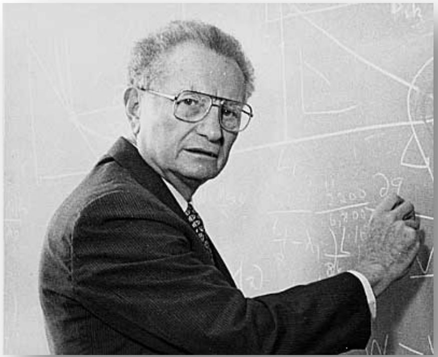
Source: Bureau of Labor Statistics.

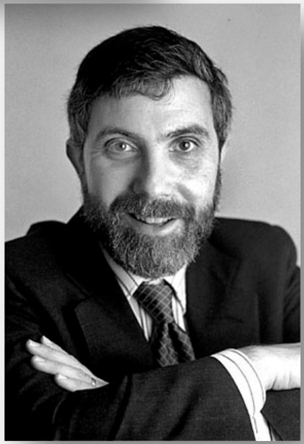
Public’s views on trade: it’s about jobs

- 63% “International trade is bad for the U.S. because it results in the loss of jobs and lower wages”

- 30% “International trade is good for the U.S. because it leads to lower prices for consumers”

Economists: trade could harm domestic welfare and wages





Aggregate Welfare

- Paul Samuelson (2004): “Even where the leaders continued to progress in absolute growth, their rate of growth tended often to be attenuated by an adverse headwind generated from low-wage competitors and technical imitators.”

- Lawrence Summers (2008) “Faster growth in oil-importing countries like China could increase the world price of oil and thus reduce US welfare by raising US import costs.”

Wage Inequality

- Paul Krugman (2008): “growing U.S. trade with third world countries reduces the real wages of many and perhaps most workers in this country.”

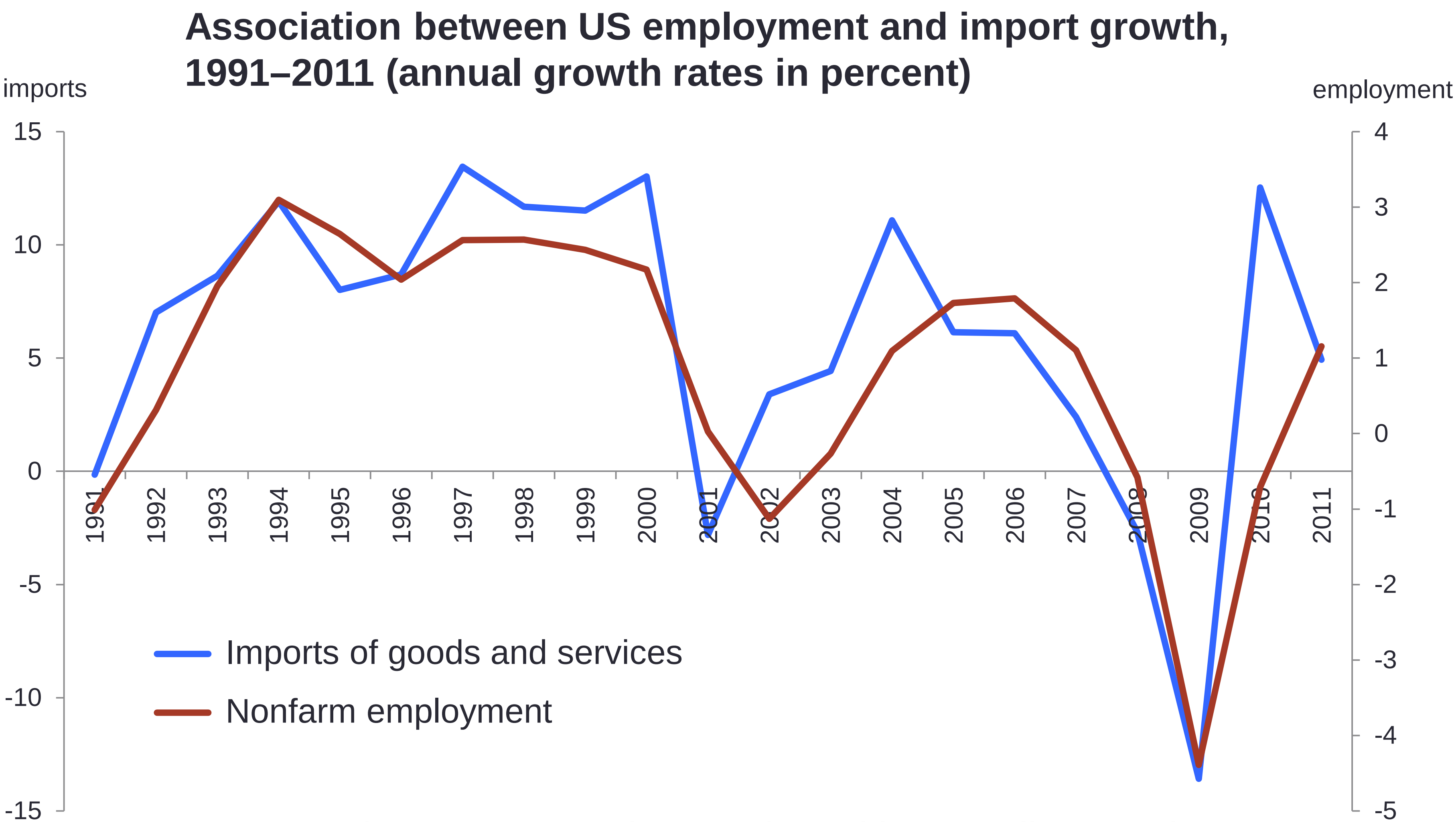
Agenda

1. **Jobs and wages (public)**
2. **Welfare (economists – Samuelson, Summers)**
3. **Wage inequality and levels (Krugman)**

It's musical chairs: employment fears center on total jobs, lost jobs, and good jobs

- Not enough chairs when music stops – **total jobs**
- Too many changes in chairs – **lost jobs**
- And not enough comfortable chairs – **good manufacturing jobs**

Total jobs: Import and employment growth are positively associated



64% of US imports are capital goods and intermediate products

Lost jobs: imports account for a small share

2002 to 2011:

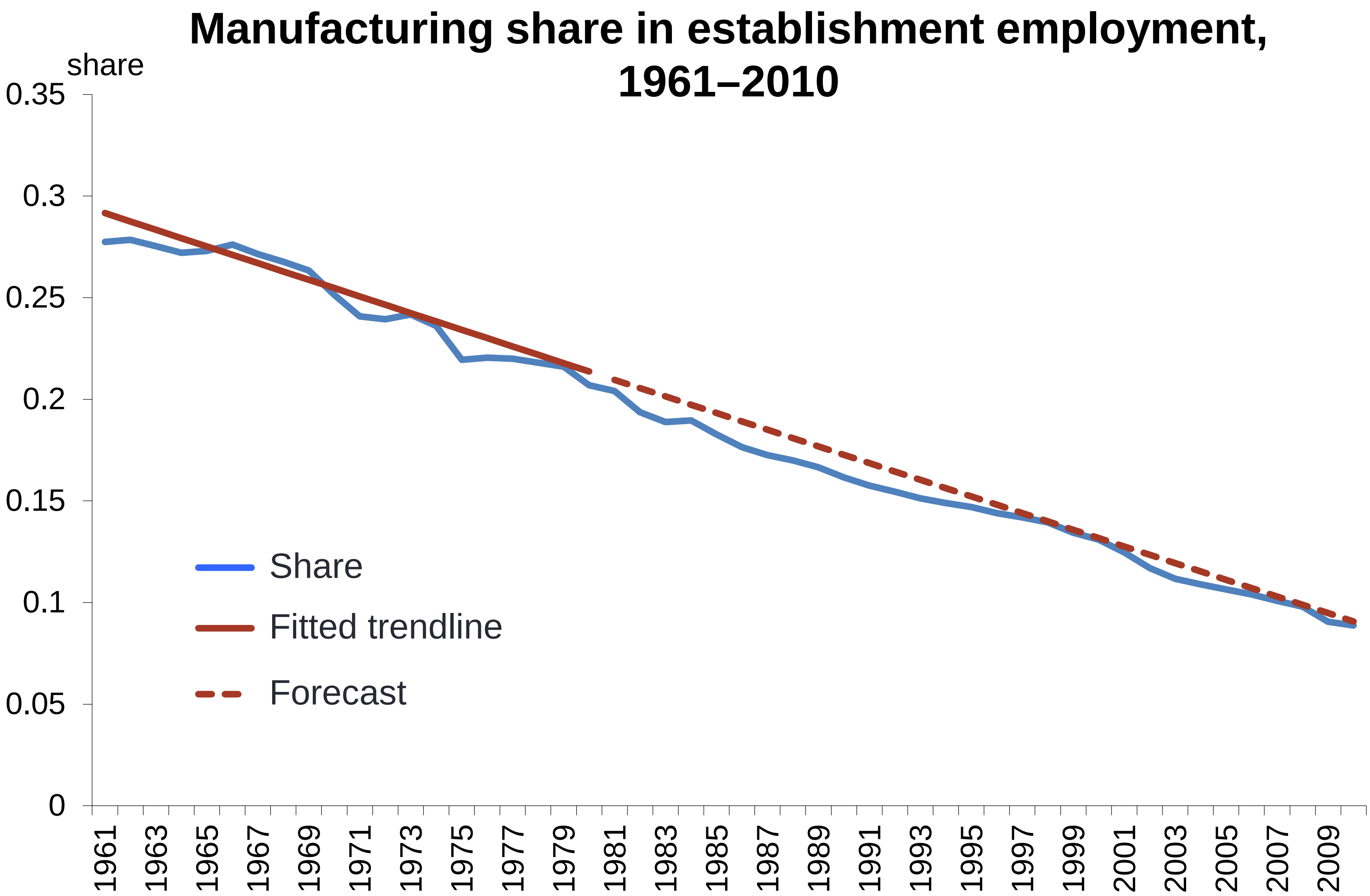
- **Growth in imports** of goods and services in 2005 dollars:
  $538 billion

- Assuming 10 workers per million dollars this translates into 5.38 million maximum displacements

- **Number of non-farm layoffs** and involuntary discharges:
  228 million

- Ratio (5.38 / 228) → **just 2.5% of job loss due to imports!**

Good Jobs: Predictable! Trend in US manufacturing share of employment has not changed.



Source: Bureau of Labor Statistics

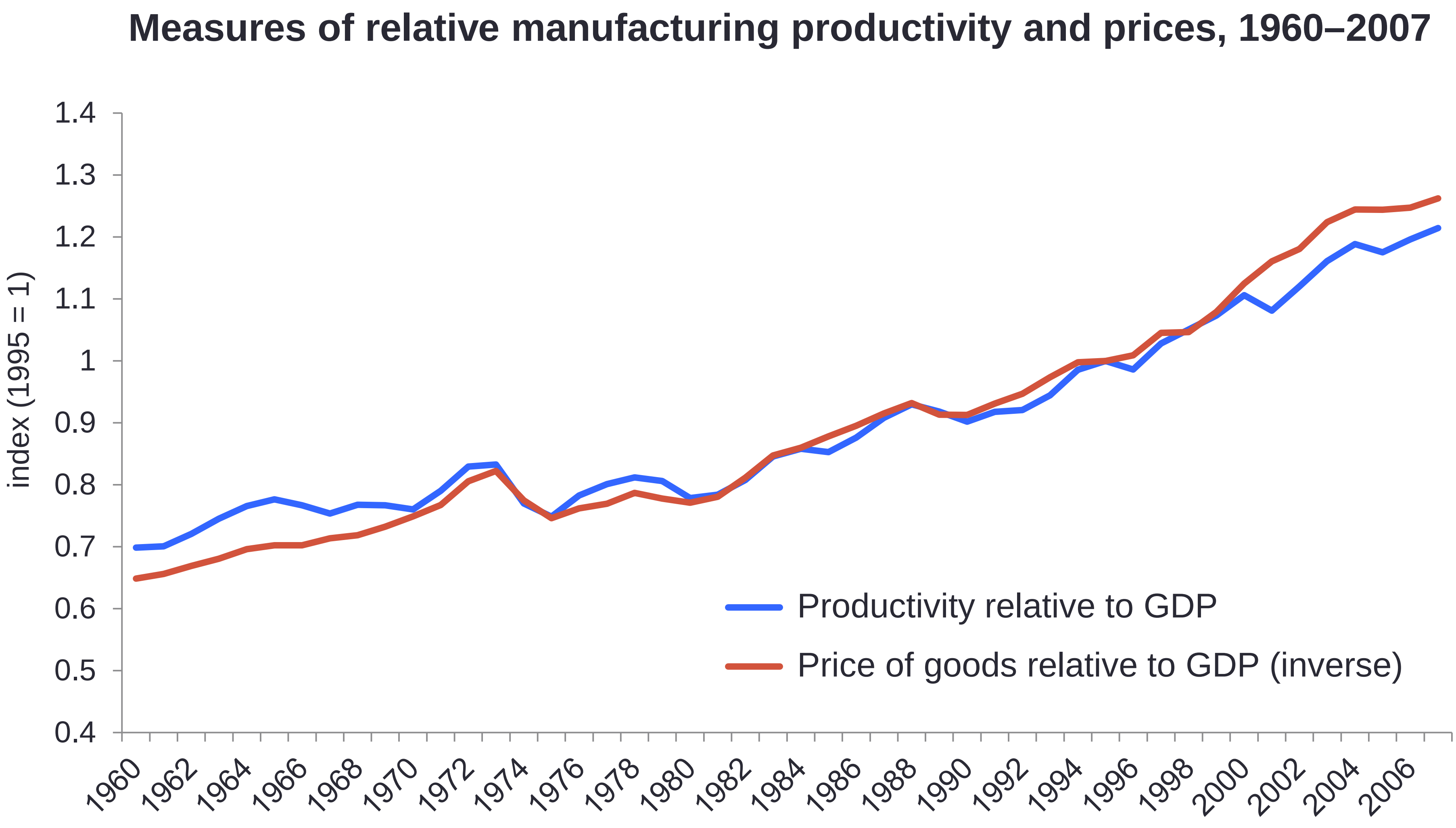
And Typical! Decline in manufacturing share of employment is similar across advanced economies

Share of employment in manufacturing, 1973–2010 (percent)

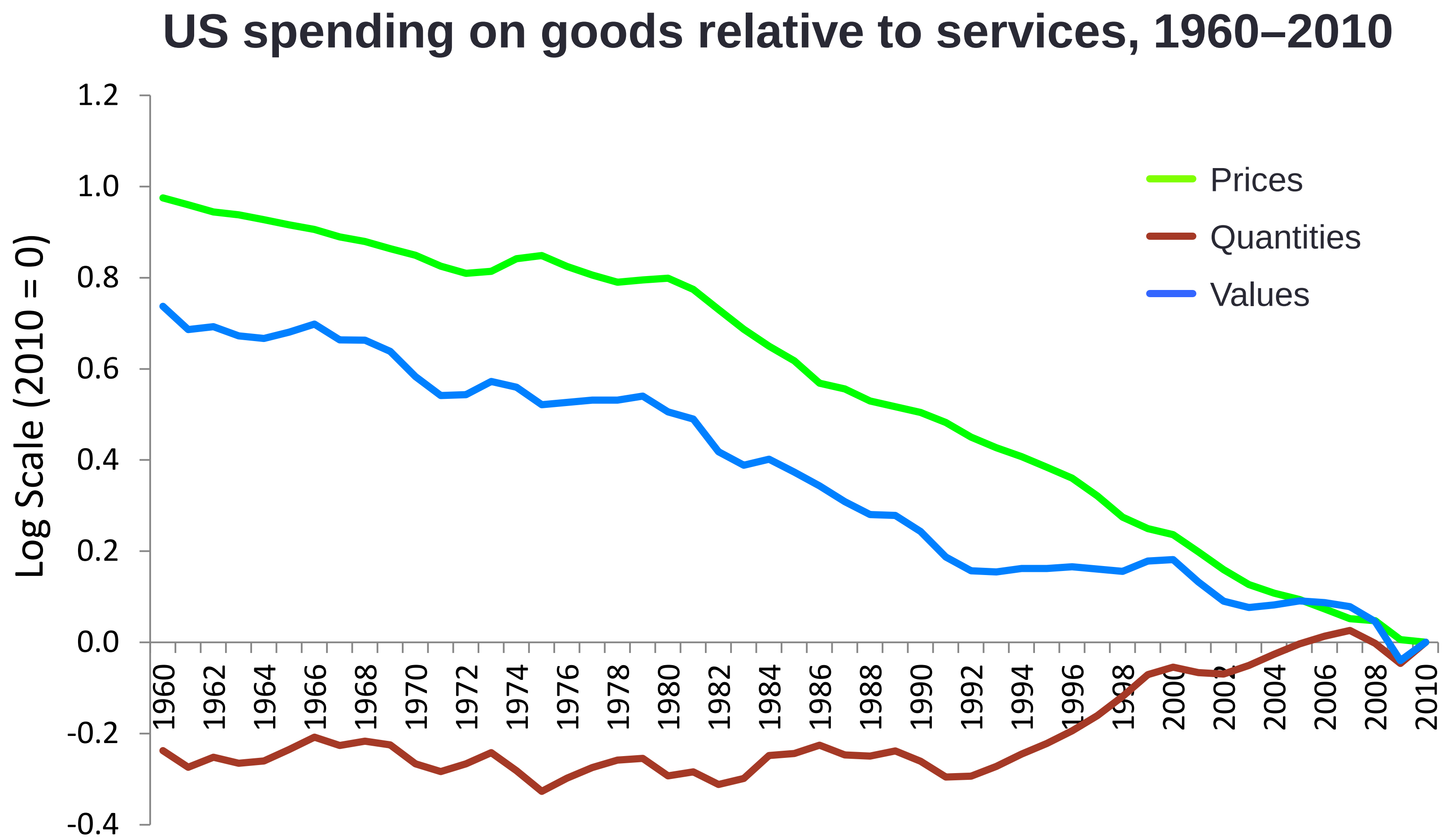
Country	**1973** (1)	**1990** (2)	**2000** (3)	**2010** (4)	**Change** (4) - (1)
United States	24.8	18.0	14.4	10.1	-14.7
Canada	22.0	15.8	15.3	10.3	-11.7
Australia	23.3	14.4	12.0	8.9	-14.4
Japan	27.8	24.3	20.7	16.9	-10.9
France	28.8	21.0	17.6	13.1	-15.7
Germany	36.7	31.6	23.9	21.2	-15.5
Italy	27.9	22.6	23.6	18.8	-9.1
Netherlands	25.3	19.1	14.8	10.6	-14.7
Sweden	27.6	21.0	18.0	12.7	-14.9

Source: Bureau of Labor Statistics.

Rapid productivity growth is reflected in prices



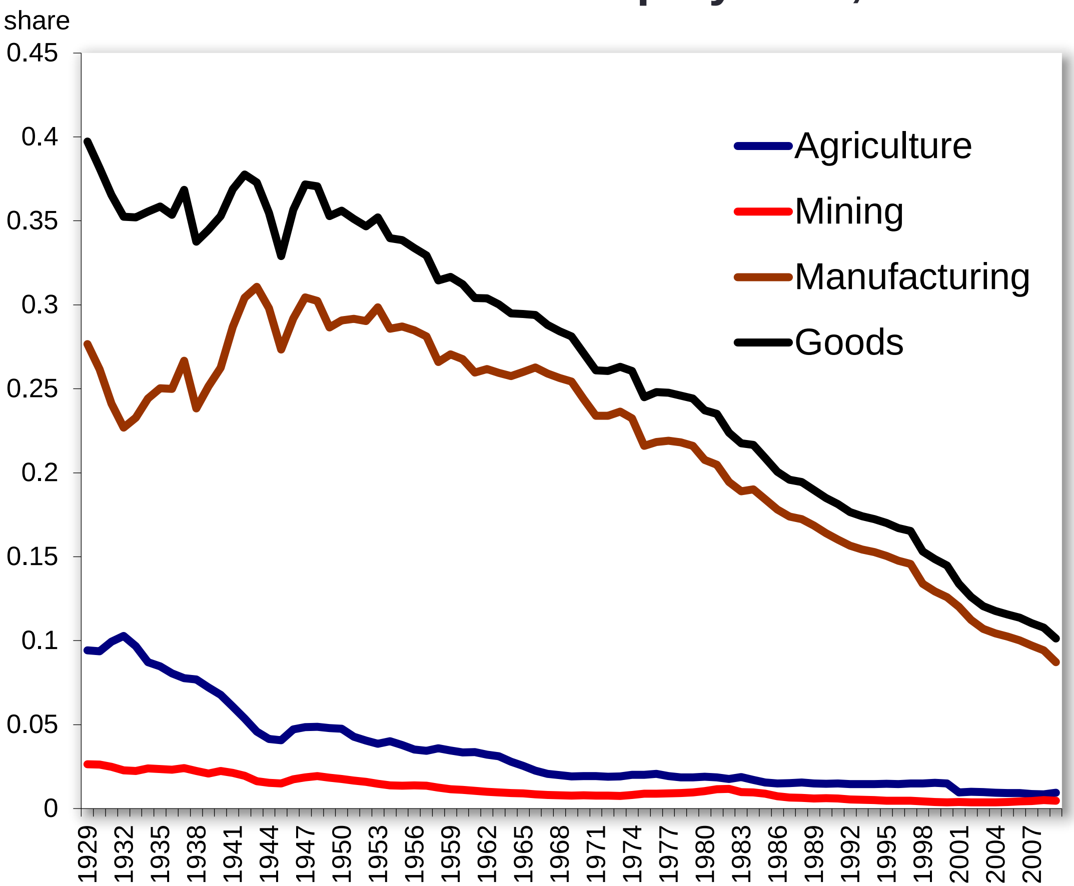
Spending on goods relative to services: Prices fall but Quantities rise slowly



Declining shares of nominal spending on goods relative to services

The American labor market is actually closing!

Sector share in total employment, 1929–2009

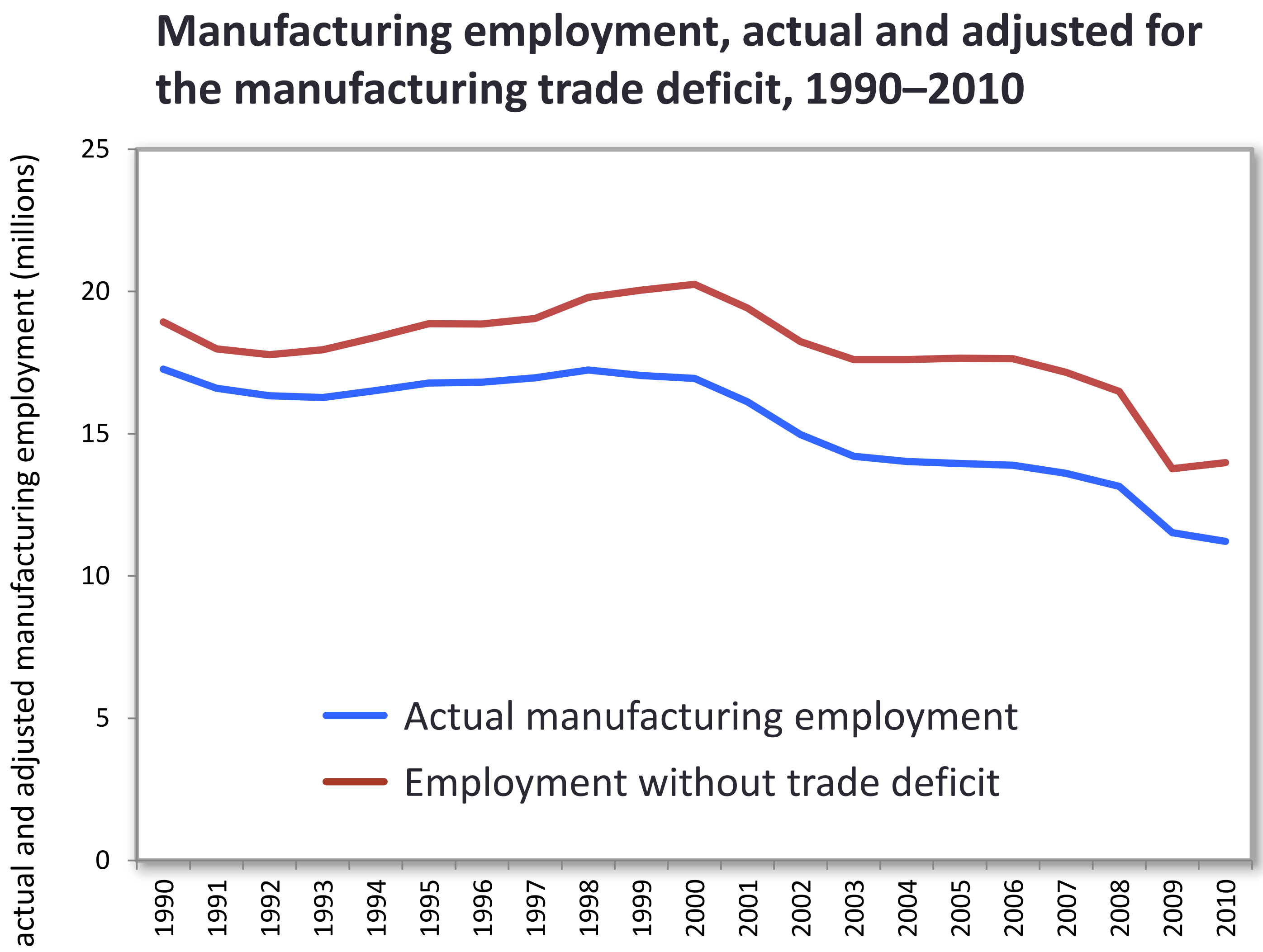


Source: Bureau of Economic Analysis

Services may have become more tradable, but the bigger story is fewer employment opportunities in **tradable goods.**

Less globalization, not more!

Manufacturing employment, actual and without trade deficit: different levels, similar decline after 2000



Summary: Jobs

- A costly and painful experience for those who are dislocated

but…

- Import growth and deficits a sign of recovery

- Trade a small share of overall displacement

- Most deindustrialization due to technology and demand

Closing the trade deficit would mean more manufacturing jobs…

…but it's like walking up a downward escalator

Agenda

1. Jobs and wages (public)
2. **Welfare (economists – Samuelson, Saummers)**
3. Wage inequality and levels (Krugman)

Welfare

- An emerging economy reduces US trade gains when trade leads to lower export prices and higher import prices, i.e. worse terms of trade

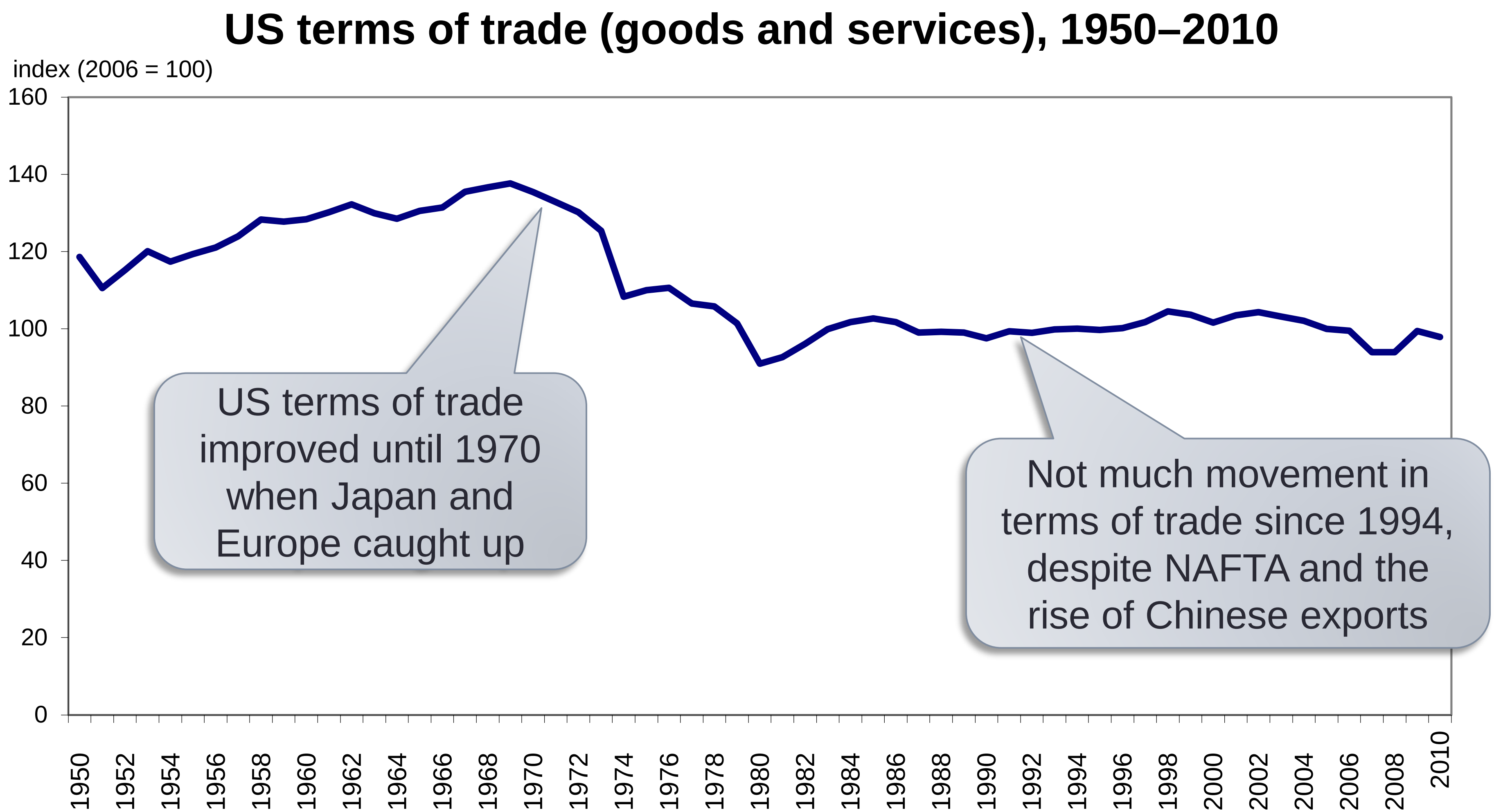
- The key is whether the emerging economy’s growth is biased towards their exports (good for US) or replacing their imports (bad for US)

Hicks: Early Growth – Export Biased

"We should … expect to find that the improvements which *start* a process of development will be export-biased. This is little more than a deduction from the general principle of the division of labor. Countries, like people, are most likely to make their improvements in those sorts of production which they already do relatively well than in those they do relatively badly."

John Hicks, 1953

Ratio of export to import prices (terms of trade) fell with advanced country trade, but steady with emerging economy trade



Source: Bureau of Economic Analysis, National Income Accounts

Developing countries today are well below GDP per captia of developed countries in the 1950's, adjusted for PPP

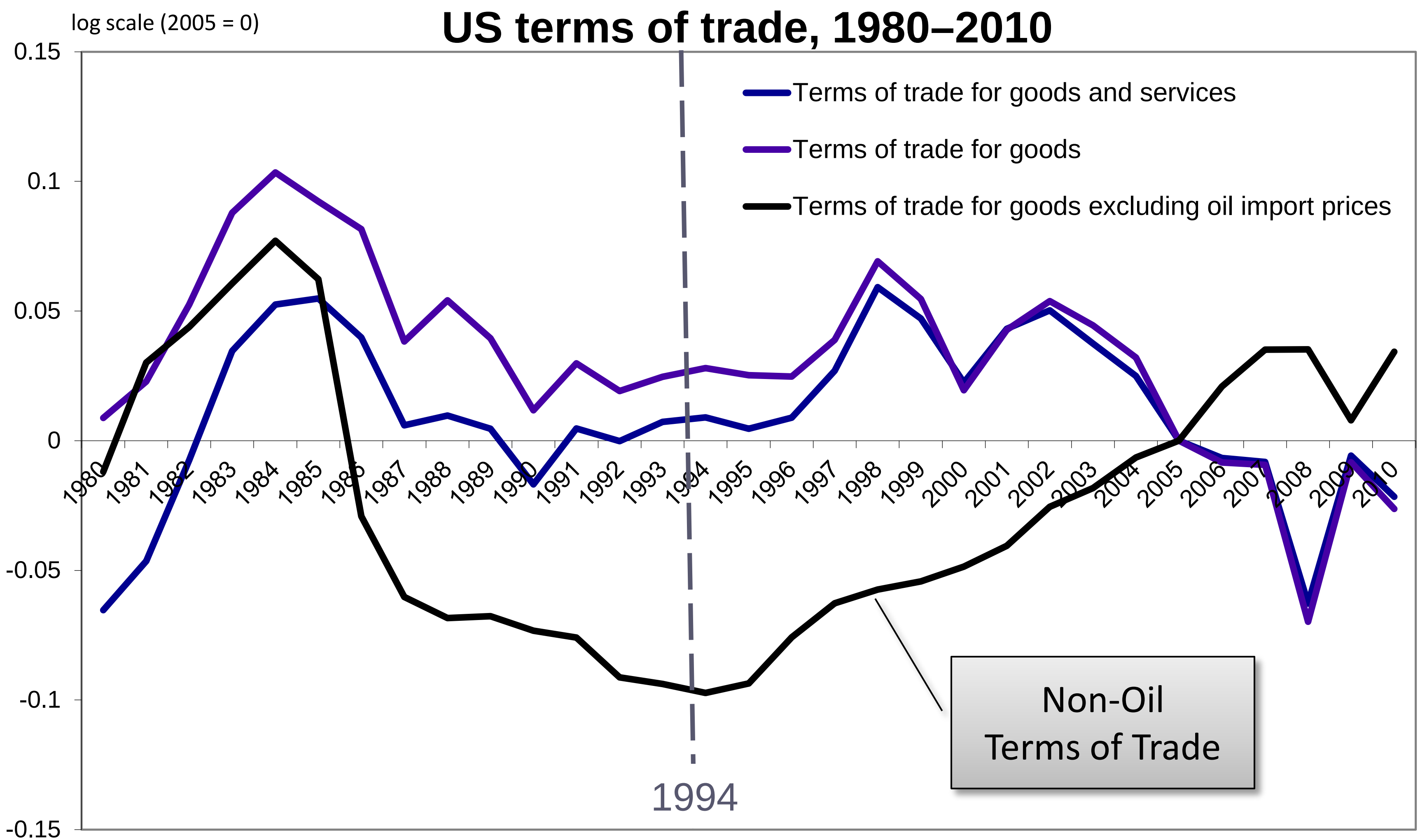
PPP-converted GDP per capita relative to the United States at current prices, 1950–2009 (percent, United States = 100)

Country	1950	1970	2009
Developed countries			
Canada	83	84	88
France	54	76	75
Germany	n.a.	77	79
Japan	24	73	77
Italy	41	70	68
United Kingdom	76	76	81
Developing countries			
Brazil	15	22	23
China	n.a.	4	19
Hong Kong	n.a.	33	85
India	5	4	8
Korea	n.a.	14	58
Malaysia	n.a.	9	28
Mexico	26	30	28
Singapore	n.a.	33	112
Taiwan	n.a.	18	68
Thailand	8	9	19

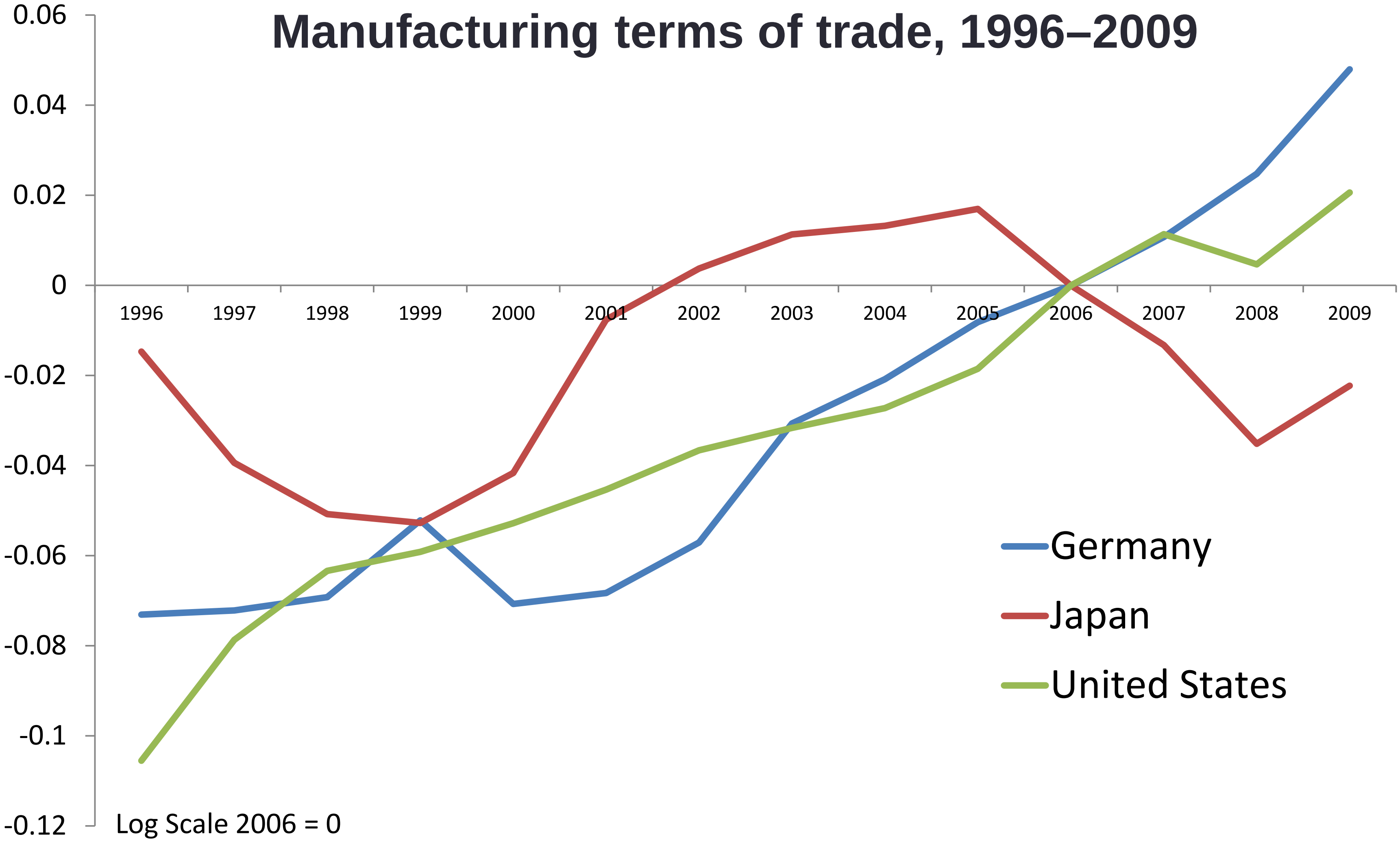
Source: Heston, Summers, and Aten (2011).

- China had 19% of US level PPP-converted GDP per capita in 2009.
- As of 2009, Brazil (23), India (8), and Mexico (28), were at or below where Japan (24), Italy (4), an France (54) were relative to the US in 1950.

Non-oil terms of trade: rising after 1994
Overall terms of trade: decline after 2002 due to oil

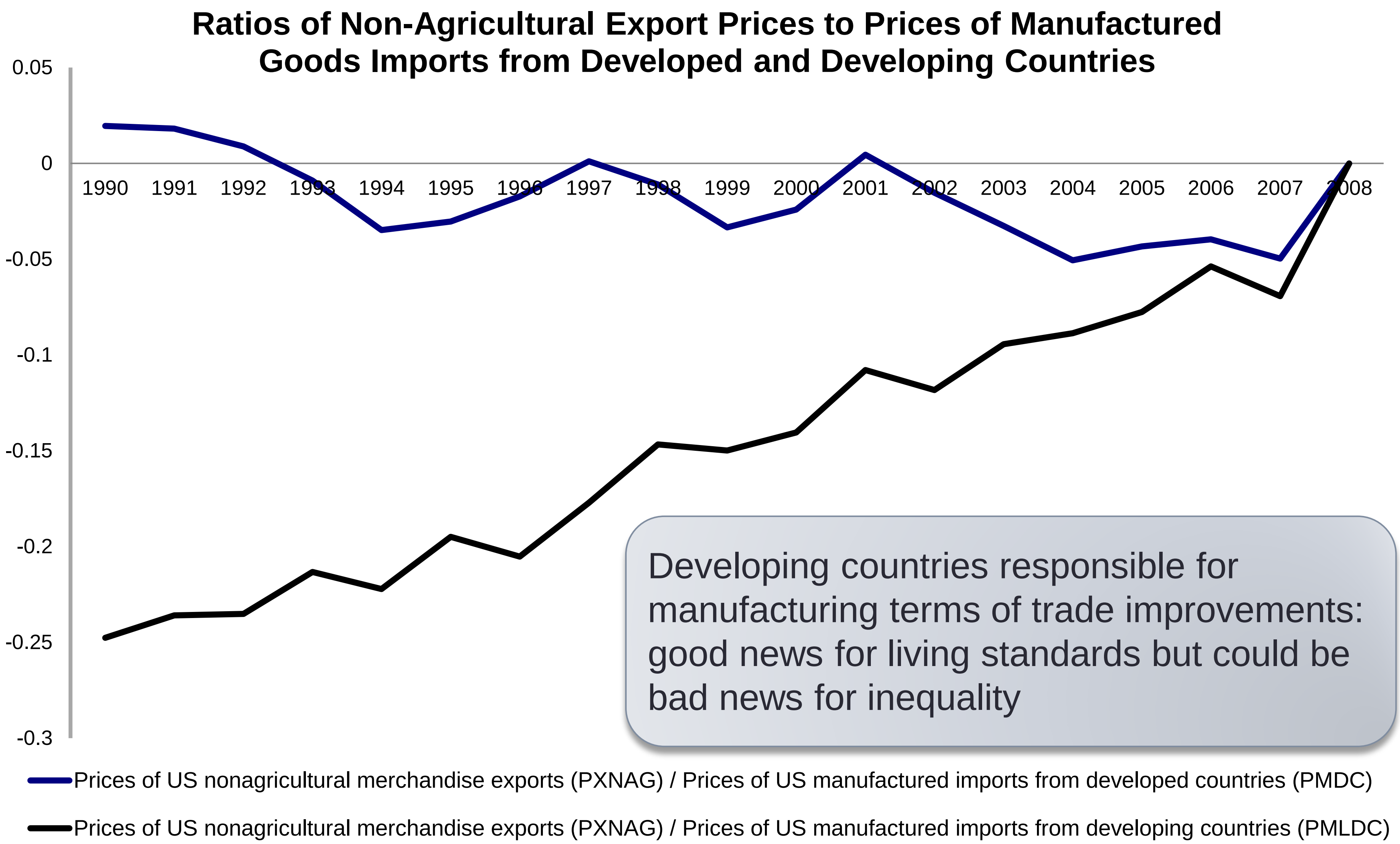


Manufacturing terms of trade have risen for the US and Germany since 1996



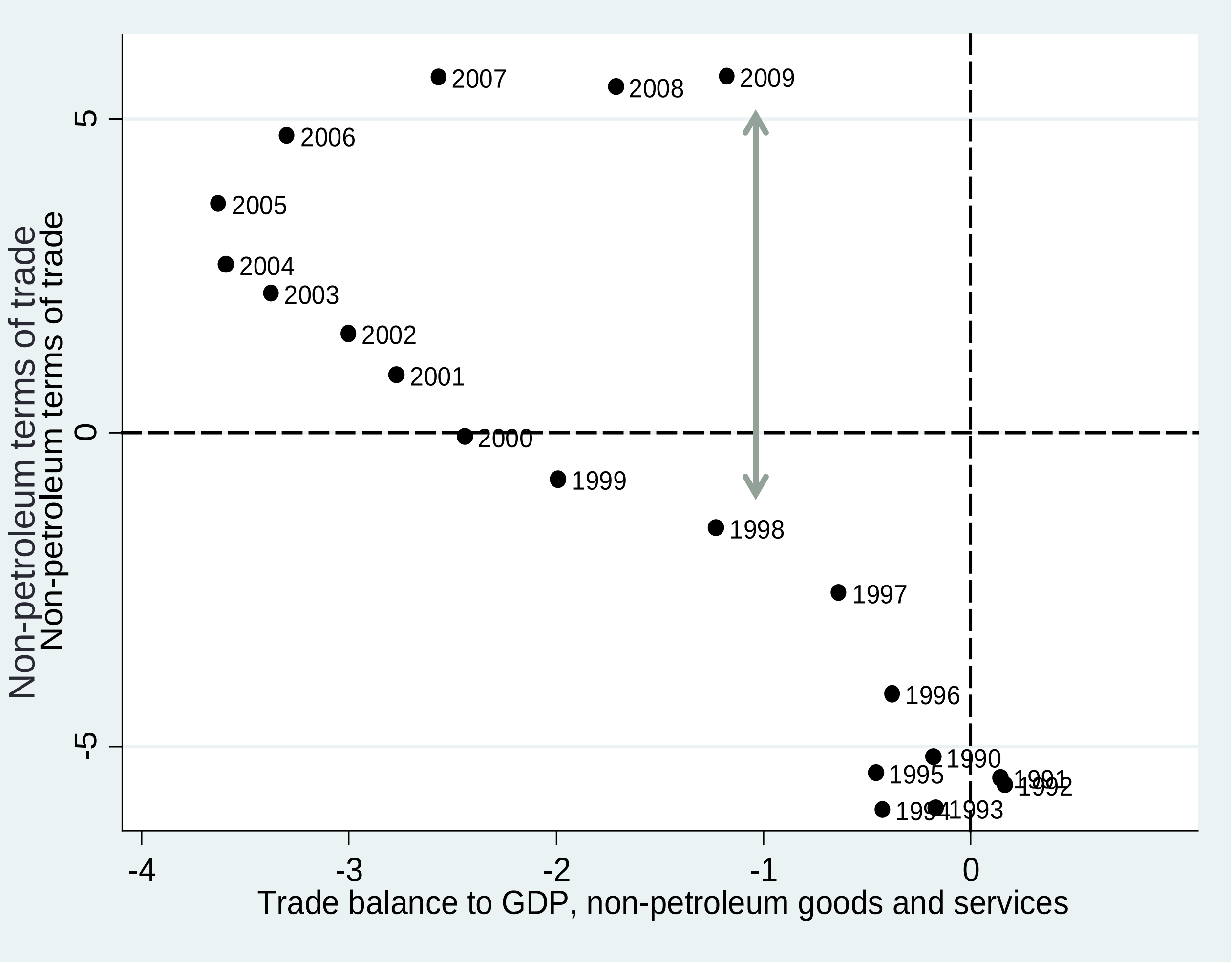
Source: Organization for Economic Cooperation and Development.

US exports increasingly price advantaged over developing country imports, but not imports from the developed world



US non-oil trade balance & terms of trade: the tradeoff has improved

Non-oil terms of trade relative to trade balance in goods & services



The non-oil terms of trade in 2009 were better than 1998 although the trade balance was similar.

US and emerging economies do not compete head to head in export markets

Export similarity indices for manufactured goods (Completely Similar = 1)

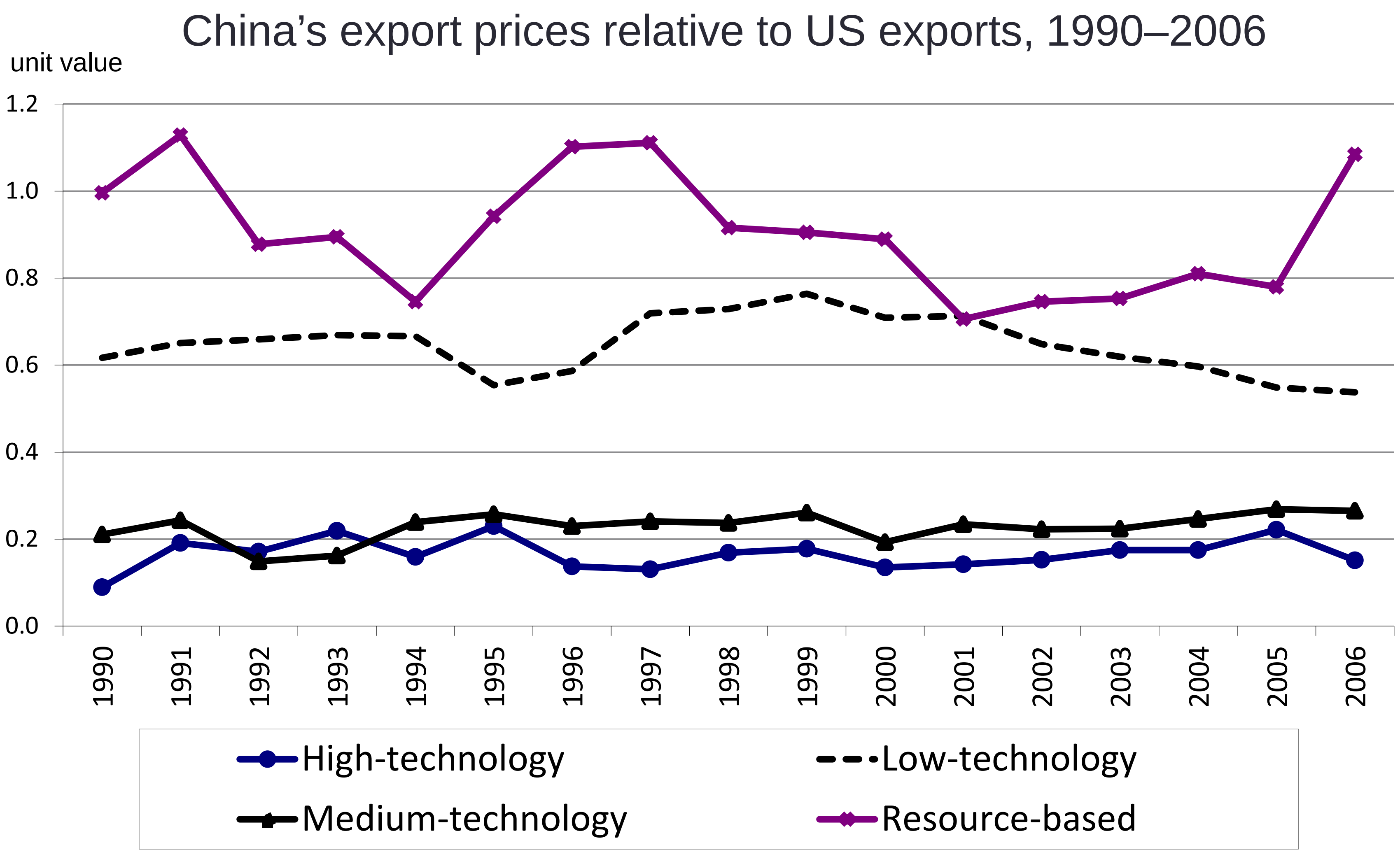
Country	1990	2006	Change 1990-2006
Vietnam	n.a.	0.08	n.a.
Hong Kong	0.22	0.18	-0.04
India	**0.08**	**0.18**	**0.1**
Singapore	0.18	0.19	0.01
ASEAN 4	0.18	0.19	0.01
China	**0.15**	**0.25**	**0.1**
Taiwan	0.27	0.26	-0.01
Other developing	0.22	0.26	0.04
France	0.31	0.32	0.01
Mexico	0.33	0.39	0.06
United Kingdom	0.41	0.43	0.02
Korea	**0.28**	**0.44**	**0.16**
Other developed	0.49	0.54	0.06
Japan	0.61	0.55	-0.06
Germany	0.5	0.56	0.06
Canada	0.53	0.56	0.04

Emerging economy exports are much cheaper

Unit Values Relative to US Exports

	1990	2000	2006
Singapore	0.67	1.06	1.62
France	1.47	1.19	1.36
UK	1.25	1.14	1.25
Japan	1.36	1.05	1.15
Germany	1.22	1.1	1.08
Developed	0.74	0.91	0.9
Korea	0.78	0.57	0.61
India	0.52	0.37	0.57
Mexico	0.61	0.57	0.49
ASEAN4	0.62	0.43	0.48
Taiwan	0.33	0.4	0.47
HongKong	0.49	0.45	0.38
China	0.32	0.28	0.36

Different price levels between China and the US, especially high and medium tech!



Source: Authors' calculations based on 6-digit Harmonized System data

Higher oil prices: Made in OECD! Accounting for production, OECD caused most oil price increases

Sources of oil market supply and demand pressure

Region	2000-2008 Ex ante demand growth	2000-2008 Production growth	2000-2008 Shortfall	2000-2008 Shortfall share	2000-2011 Shortfall	2000-2011 Shortfall share
World	14.26	7.62	6.64	100.00	8.92	100.00
Advanced economies	3.07	-2.32	5.39	81.00	5.93	66.50
Emerging-market economies	11.19	9.93	1.26	19.00	2.99	33.50
United States	1.70	-0.55	2.25	34.00	1.42	15.93
China	3.02	0.59	2.43	37.00	3.62	40.55
	(million barrels a day)	(million barrels a day)	(million barrels a day)	(percent)	(million barrels a day)	(percent)

Shortfall = (Ex ante demand growth) - (Production growth), for the period
Ex ante demand = (GDP growth, for the period) * (Income elasticity of oil consumption, 1995-2000)

Sources: International Monetary Fund, World Economic Outlook database; International Energy Agency

Summary: Welfare

- Terms of trade movements have been positive. Emerging economies sell the US cheaper imports and do not compete head to head in exports
- In addition the US benefits from increased variety and enhanced productivity
- Using the methodology of Arkolakis et. al. we find the gains from trade with emerging economies equals $500 per person in the US, about half due to China
- Improvements remain even with balanced trade
- Oil is an exception but mainly due to advanced economies

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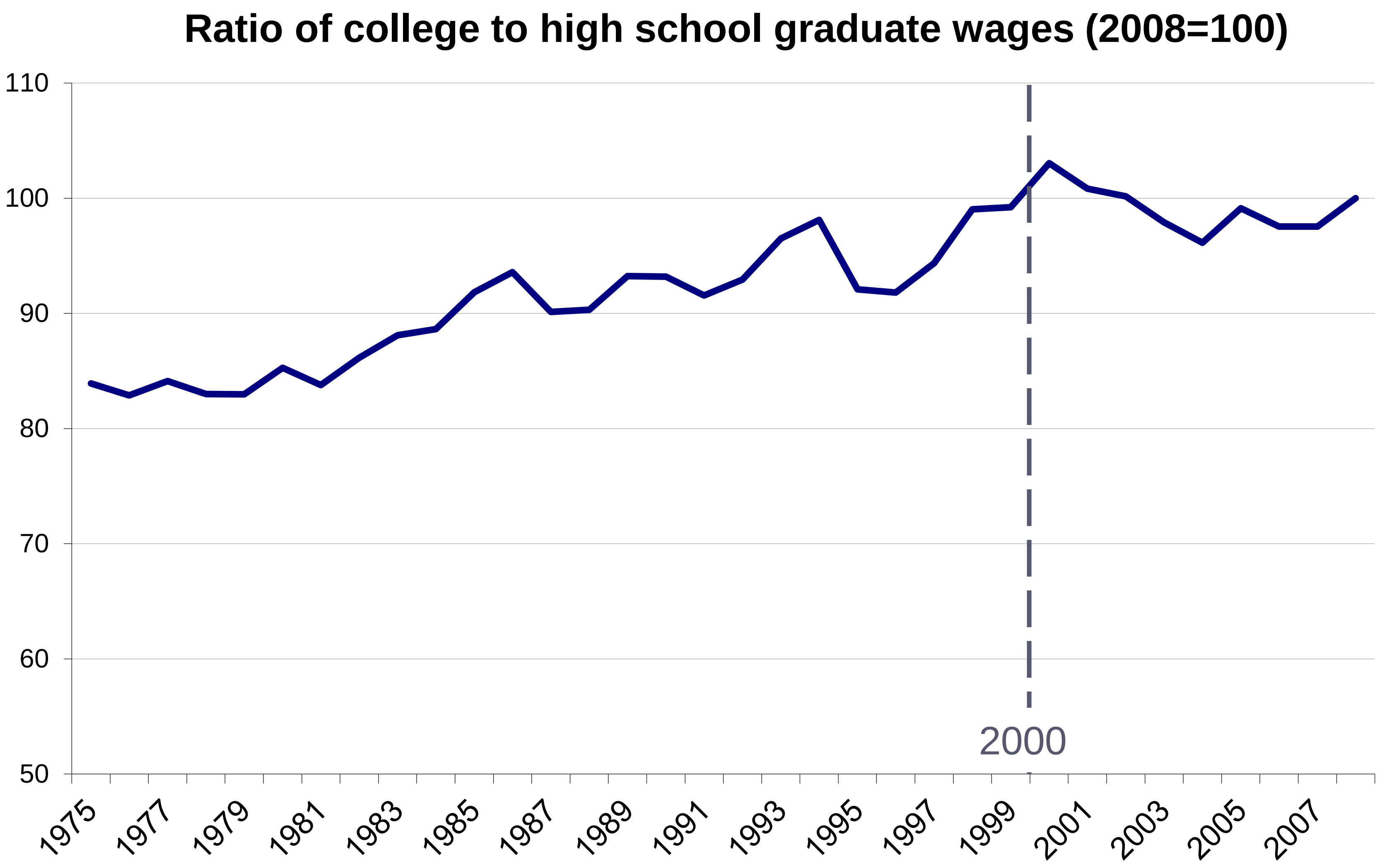
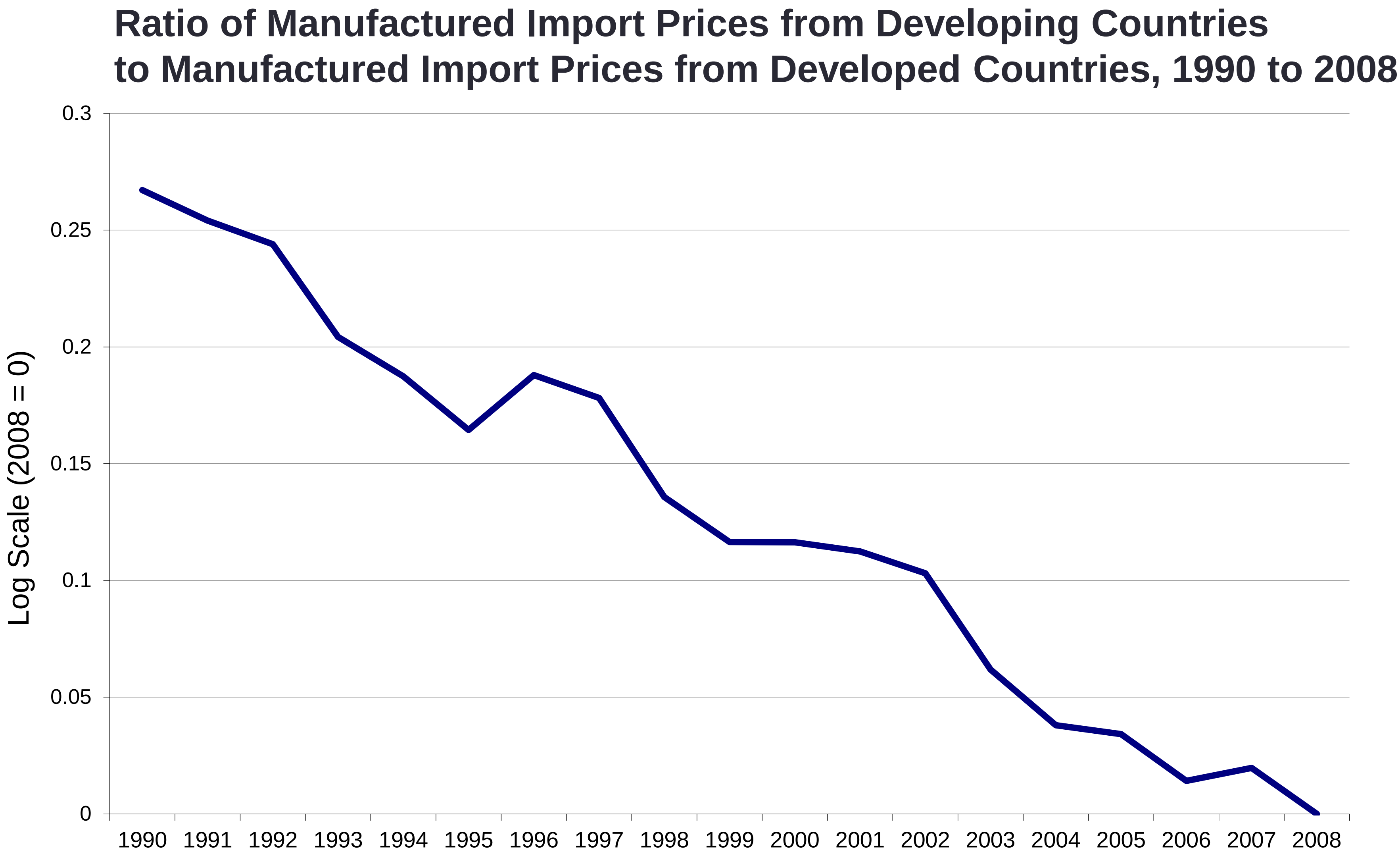
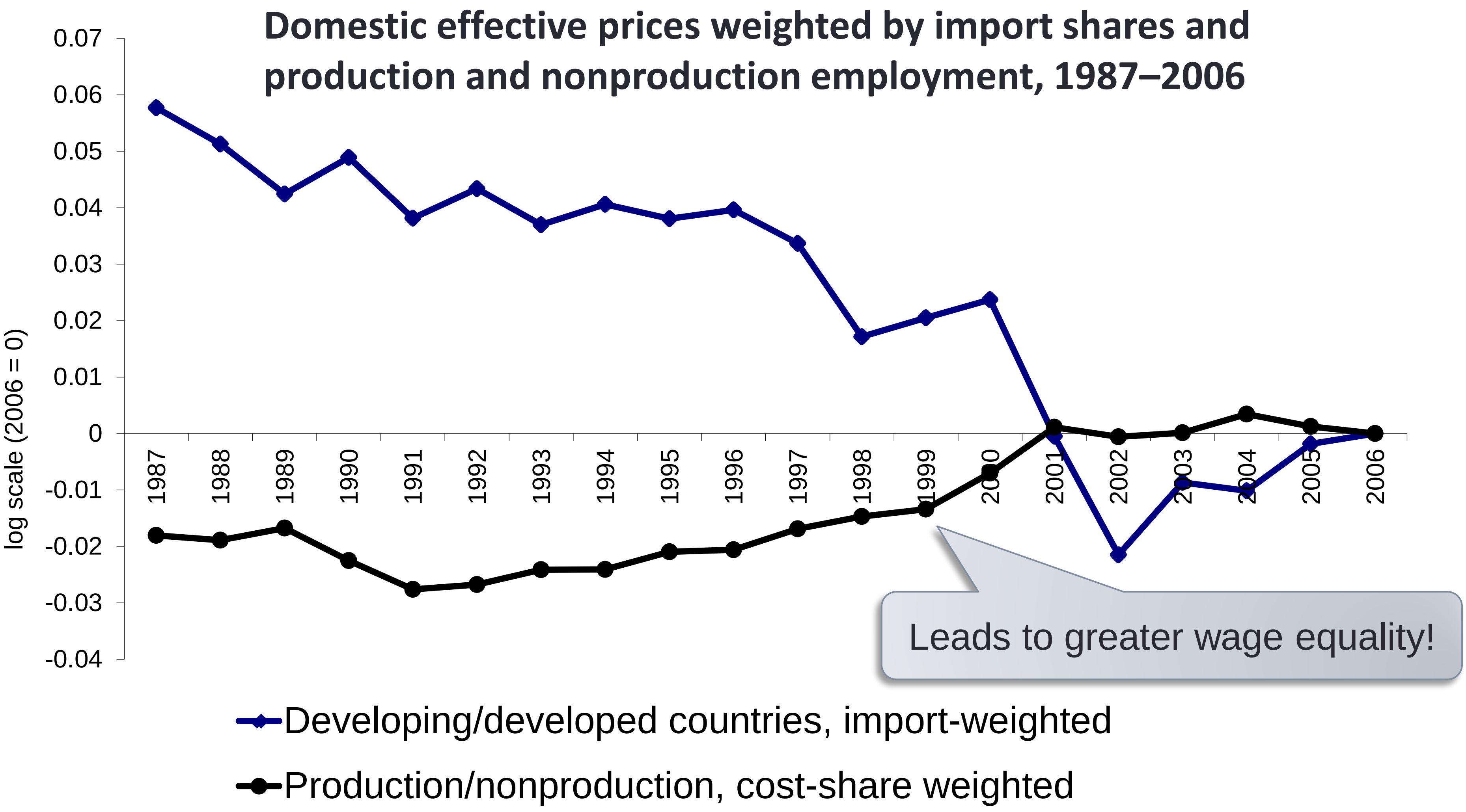
What are we explaining?
College premium steady after 2000



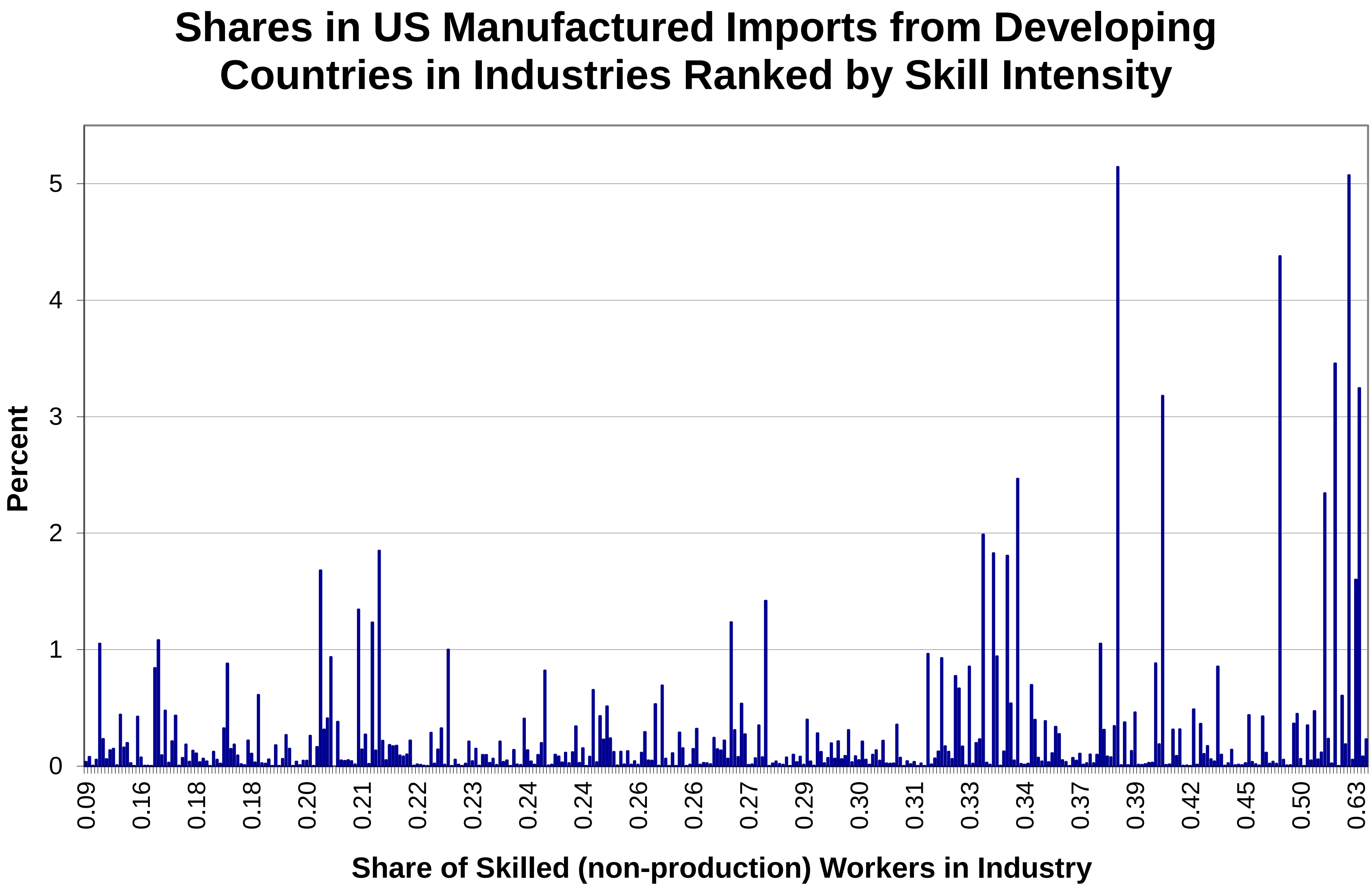
Import prices of manufactured goods from developing countries have fallen relative to other imports



Falling import prices do not translate into falling prices of unskill-intensive goods



In US, *higher-skill* manufacturing industries account for more imports from developing countries



Trade and wages

Skill Premium

- **Factor content studies:** almost no impact, because skill content differences in US exports and imports from emerging economies are small
- **Simulation studies:** 2% rise in skill premium over 1995-2006
- An upper bound. Assume:
  - All imports produced at home
  - All imports from emerging economies unskilled (ignore supply chains)
- **Our Study:** We apply mandated factor prices and find no significant impact
  - **There *is* evidence of impact on specific wages**

Conclusions

- Faster foreign growth is part of the solution to US employment problems.
- Foreign growth has had some adverse effects on particular workers, causing dislocation and wage loss.
- Trade accounts for just a small part of overall worker displacement in an economy which is astoundingly volatile.
- Declining trend in US manufacturing employment: driven by the combination of a shift in domestic demand away from spending on goods and faster productivity growth in manufacturing.
- Trade has improved US living standards. With exception of oil, emerging economies have been mainly complementary rather than competitive with US.
- Recent trade not a major source of wage inequality along the lines of skill.