Trade Policies in Developing Counties

(Krugman, Obstfeld, Melitz: Chapter 11)

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Import-Substituting Industrialization (ISI)

- Import-substituting industrialization was a trade policy adopted by many low- and middle-income countries before the 1980s.
- The policy aimed to encourage domestic industries by limiting competing imports.

Effective Protection of Manufacturing in Some Developing Countries (percent)

Mexico (1960)	26
Philippines (1965)	61
Brazil (1966)	113
Chile (1961)	182
Pakistan (1963)	271

Source: Bela Balassa, *The Structure of Protection in Developing Countries* (Baltimore: Johns Hopkins Press, 1971), p. 82.

The Infant Industry Argument

- The principal justification of this policy was/is the *infant industry argument:*
  - Countries may have a potential comparative advantage in some industries, but these industries cannot initially compete with well-established industries in other countries.
  - To allow these industries to establish themselves, governments should temporarily support them until they have grown strong enough to compete internationally.

Problems with the Infant Industry Argument

1. It may be wasteful to support industries now that will have a comparative advantage in the future.

2. With protection, infant industries may never "grow up" or become competitive.

3. There is no justification for government intervention unless there is a market failure that prevents the private sector from investing in the infant industry.

Infant Industries and Market Failures

1. Imperfect financial asset markets
   – Because of poorly working financial laws and markets (and more generally, a lack of property rights), firms cannot or do not save and borrow to invest sufficiently in their production processes.
   – If creating better functioning markets and enforcing laws is not feasible, then high tariffs would be a second-best policy to increase profits in new industries, leading to more rapid growth.
2. The problem of appropriability
   – Firms may not be able to privately appropriate the benefits of their investment in new industries because those benefits are public goods.
   – The knowledge created when starting an industry may not be appropriable (may be a public good) because of a lack of property rights.
   – If establishing a system of property rights is not feasible, then high tariffs would be a second-best policy to encourage growth in new industries.

Did ISI promote economic development?

- ISI in Latin American countries worked to encourage manufacturing industries in the 1950s and 1960s.
- But economic development, not encouraging manufacturing, was the ultimate goal of the policy.
- It appeared that the infant industry argument was not as valid as some had initially believed.
- New industries did not become competitive despite or because of trade restrictions.
- ISI involved costs and promoted wasteful use of resources

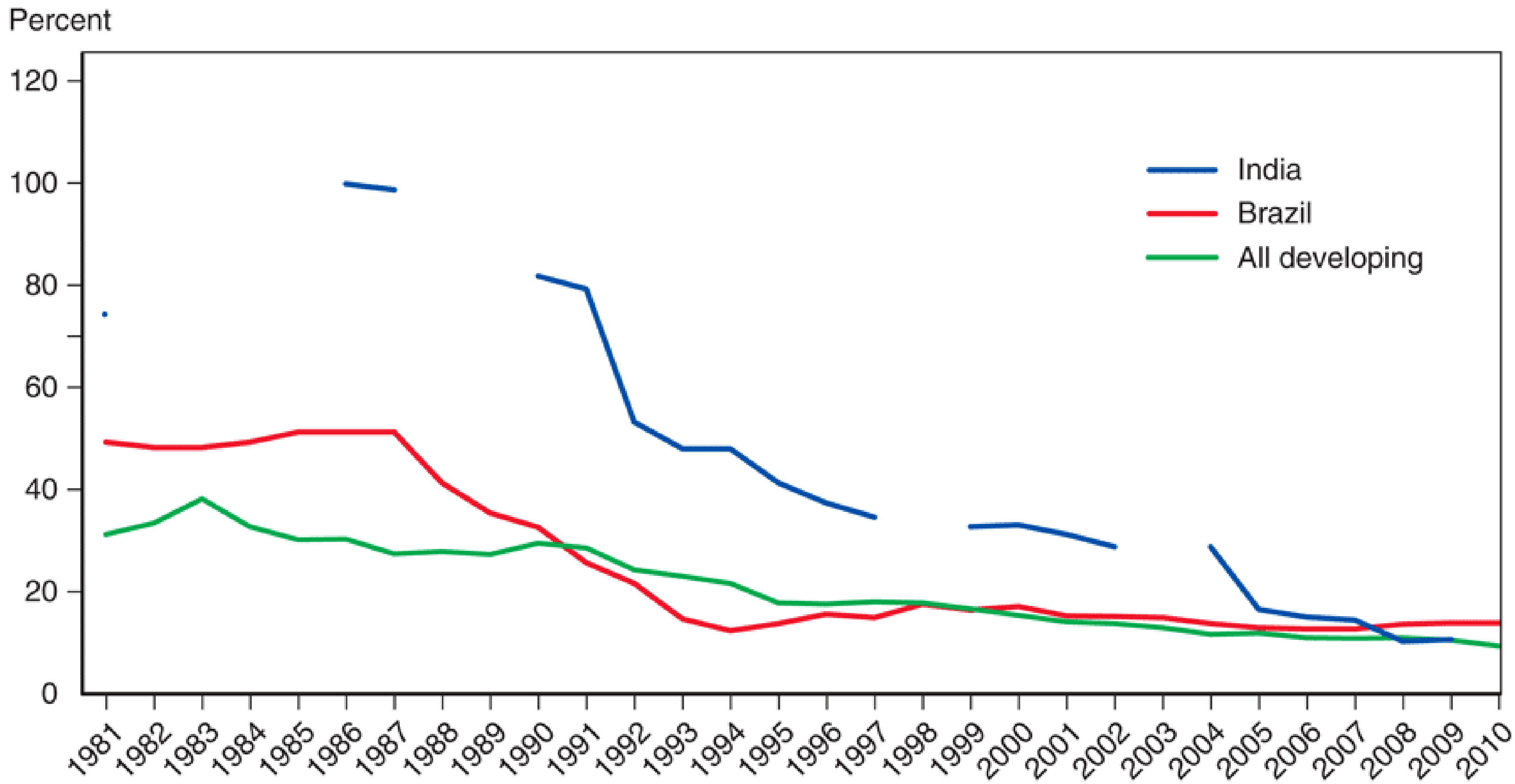
Trade Liberalization

- Some low- and middle-income countries that had relatively free trade had higher average economic growth than those that followed import substitution.
- By the mid-1980s, many governments had lost faith in ISI and began to liberalize trade.
  - Dramatic fall in tariff rates in India and Brazil, and less drastic reductions in many other developing countries.

Trade Liberalization (cont.)

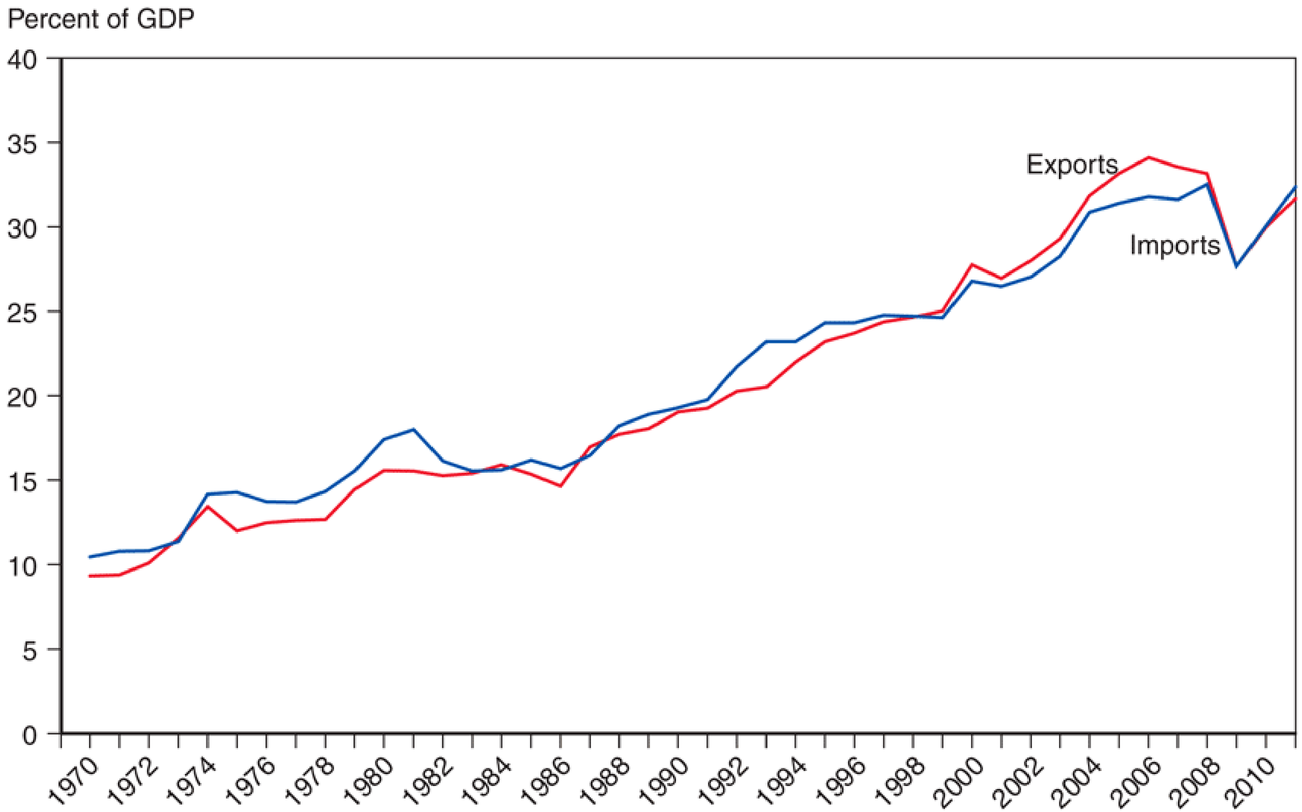
- Trade liberalization in developing countries occurred along with a dramatic increase in the volume of trade.
- A number of developing countries have achieved extraordinary growth while becoming more, not less, open to trade.

Tariff Rates in Developing Countries



Source: World Bank.

The Growth of Developing-Country Trade



Source: http://data.worldbank.org/indicator/NE.EXP.GNFS.ZS, http://data.worldbank.org/indicator/NE.IMP.GNFS.ZS

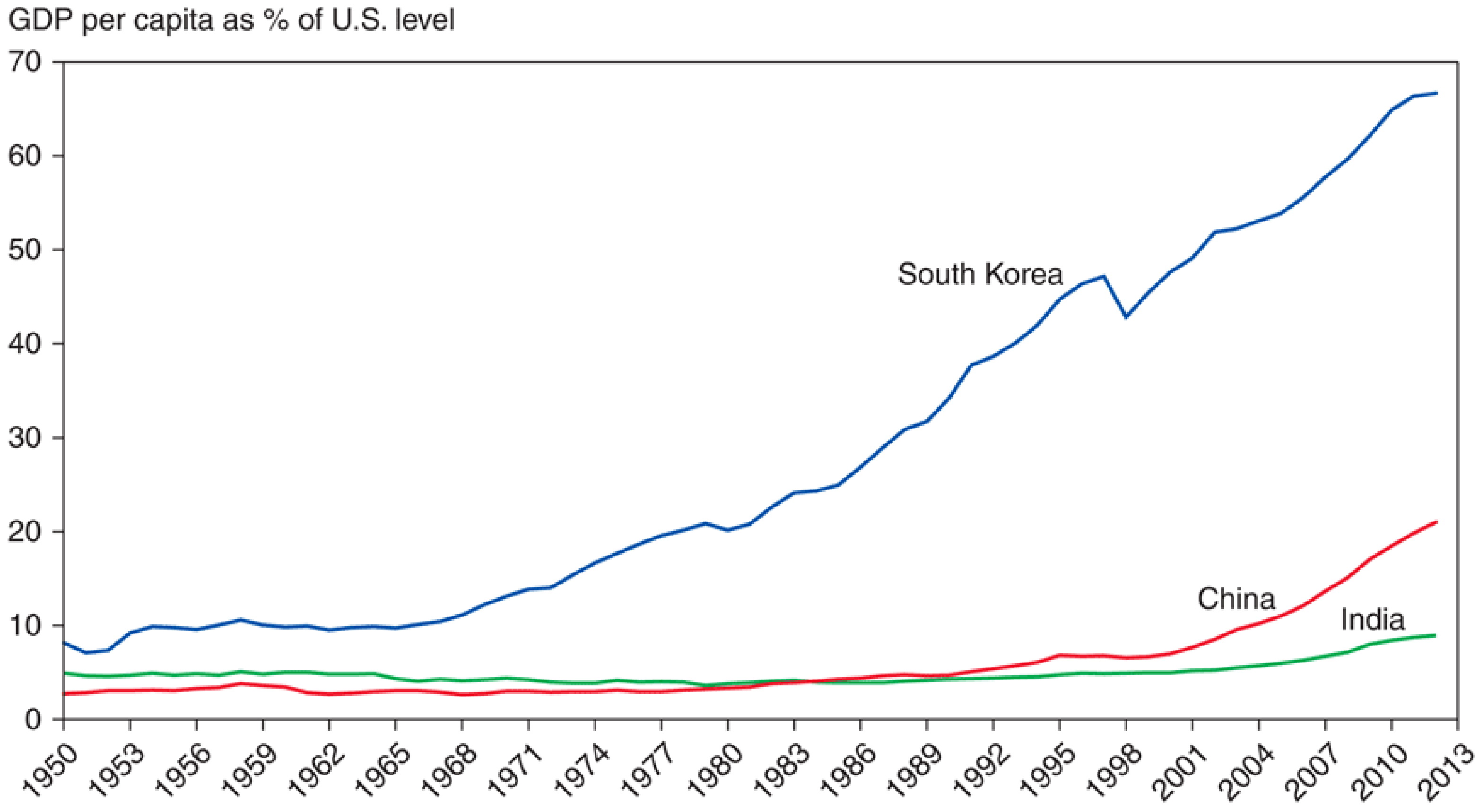
Has trade liberalization promoted development?

- Brazil and Latin American countries: Lower growth
- India: Higher growth
- Some economists also argue that trade liberalization has contributed to income inequality, as the Heckscher-Ohlin model predicts.

Trade and Growth: Takeoff in Asia

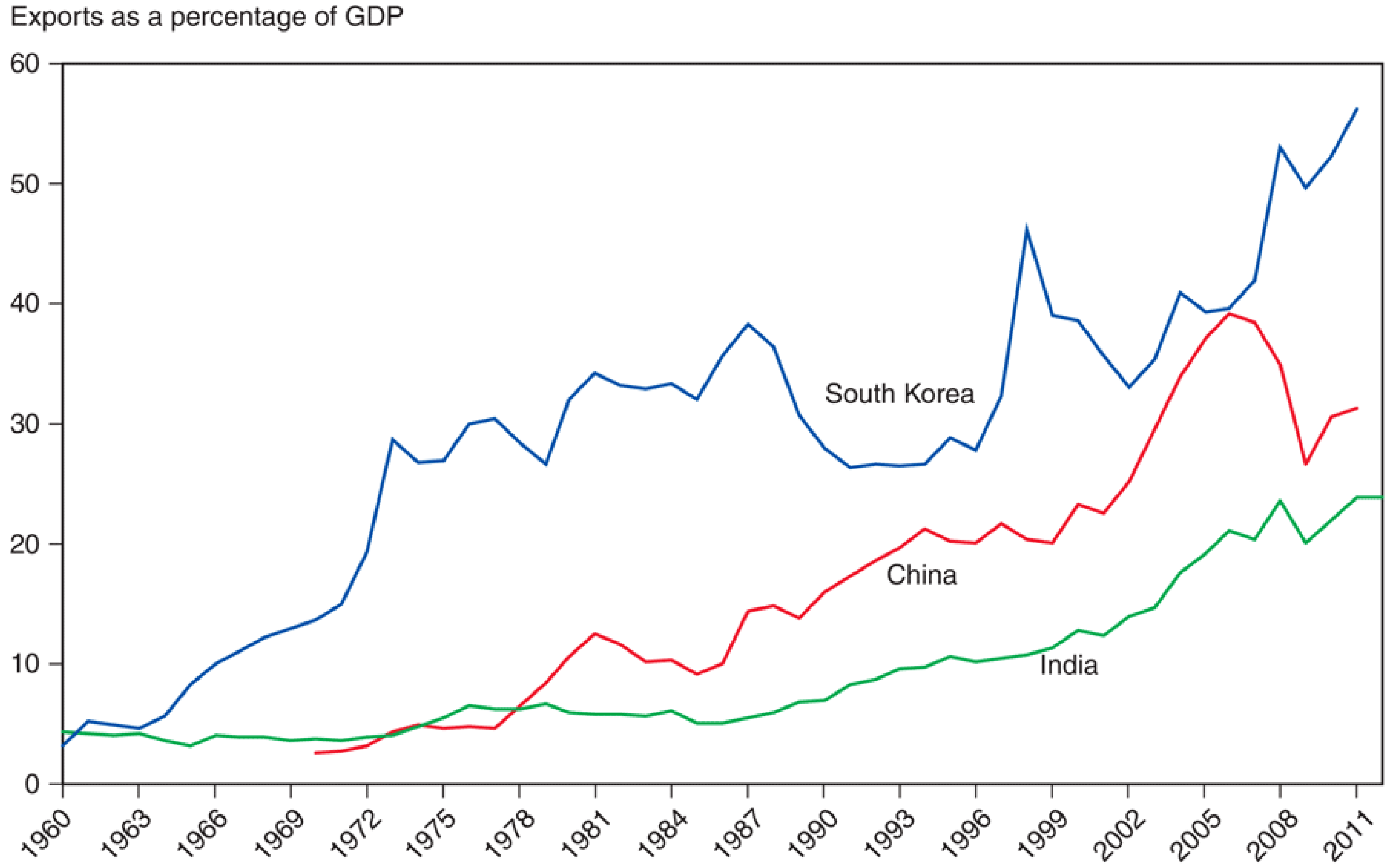
- Instead of import substitution, several countries in East Asia adopted trade policies that promoted exports in targeted industries.
  - Japan, Hong Kong, Taiwan, South Korea, Singapore, Malaysia, Thailand, Indonesia, and China have experienced rapid growth in various export sectors and rapid economic growth in general.

The Asian Takeoff



Source: Total Economy Database.

Asia's Surging Trade



Source: World Bank

Trade and Growth: Takeoff in Asia (cont.)

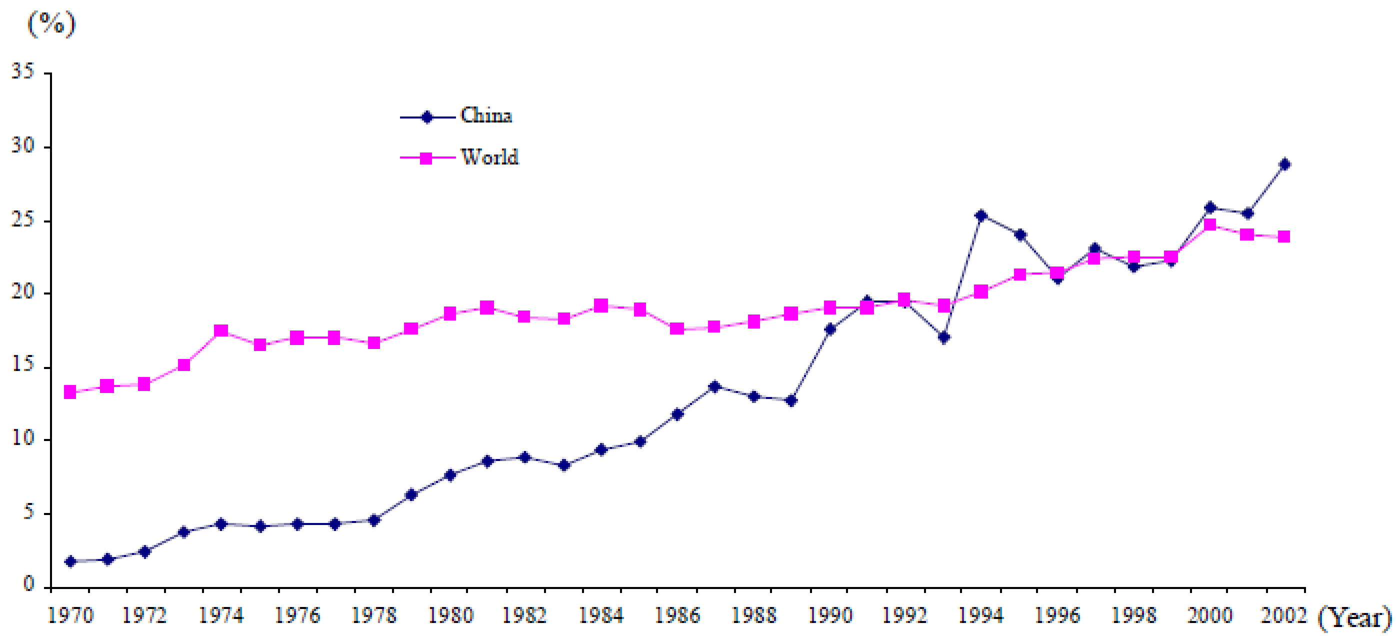
- It's unclear if the high volume of exports and imports *caused* rapid economic growth or was merely *correlated* with rapid economic growth.
  - High saving and investment rates could have led to both rapid economic growth in general and rapid economic growth in export sectors.
  - Rapid growth in education led to high literacy and numeracy rates important for a productive labor force.
  - These nations also undertook other economic reforms.

What's Special About China's Exports

Dani Rodrik (2006)

- China's economy has expanded by leaps and bounds using experimental gradualism: increasingly relying on markets and on price signals.
- That trade has played a significant role in this transformation.
  - The share of exports in GDP rose from virtually nothing in the 1960s to close to 30 percent in 2003

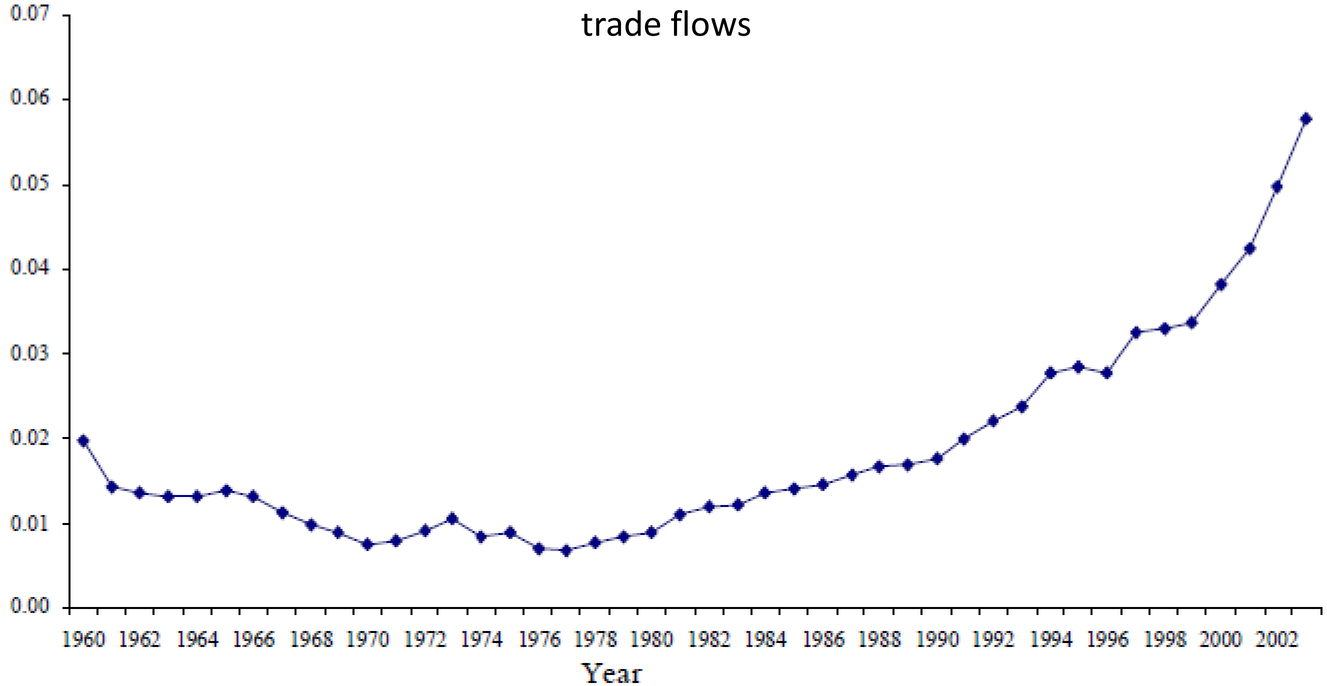
Exports as a Share of GDP



Source: World Development Indicators Database.

China's Share of World Merchandise Exports

One of the world's biggest trading powers, accounting for 6 percent of global
trade flows

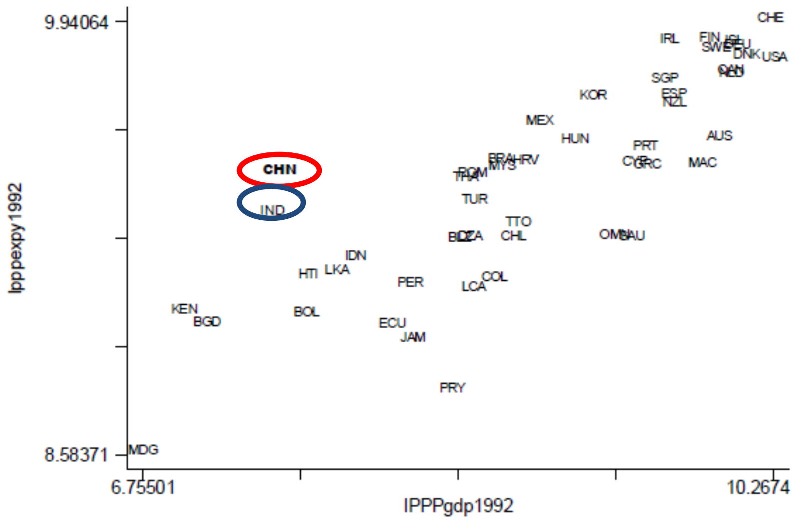


Source: World Development Indicators Database.

China’s Unconventional Policy

- The standard list of recommendations for countries pursuing global integration includes: dismantle quantitative restrictions on imports, reduce import tariffs, make the currency convertible, eliminate bureaucratic red tape and other impediments to FDI, improve customs procedures, and establishes the rule of law.
- Measured by these guidelines, China’s policies resemble more those of a country that messed up big time.
  - China opened up very gradually, and significant reforms lagged behind growth (in exports and overall incomes) by at least a decade or more.
  - A major argument of this paper is that China is an outlier in terms of the overall sophistication of its exports.
  - China’s experience indicates that it is not how much you export, but what you export that matters.

Relationship between EXPY and Per-Capita Incomes in 1992



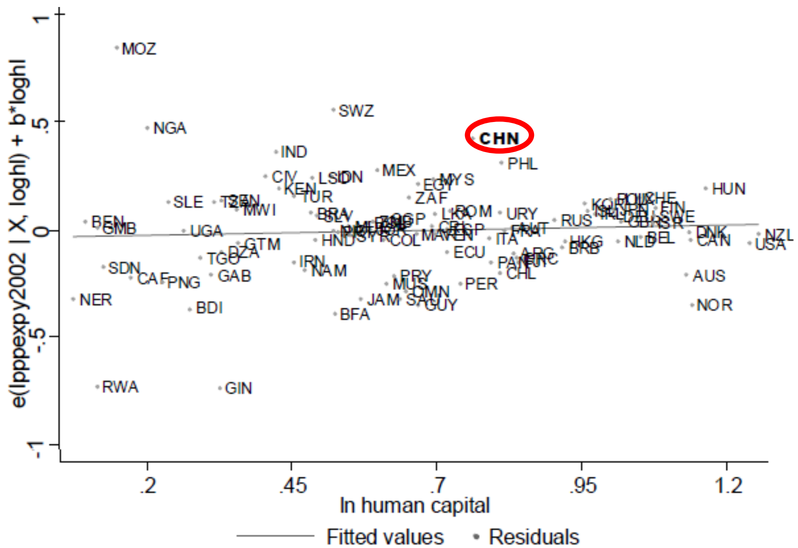
Correlation coefficient is 0.83

India and China stand out

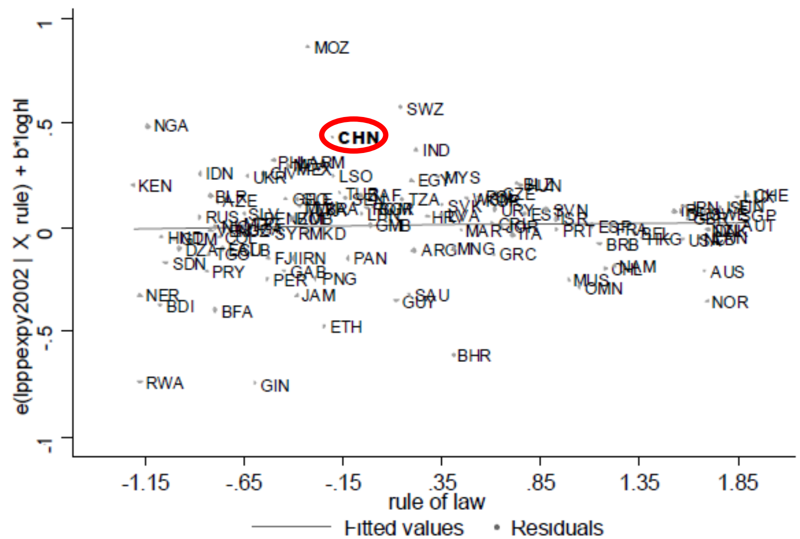
- EXPY is strongly correlated with per-capita income.
- In 1992, China's exports were associated with an income level that is more than six times higher than China's per-capita GDP at the time.
- Export profiles are skewed towards high productivity goods.

EXPY, Human Capital and Institutional Quality

EXPY and Human Capital

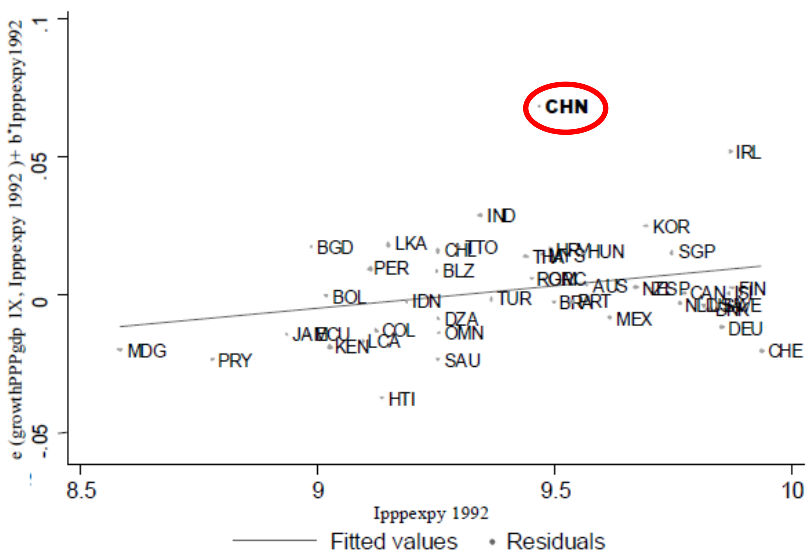


EXPY and Institutional Quality



A very weak positive partial correlation with the stock of human capital and virtually no partial correlation with our index of institutional quality, the “rule of law”.

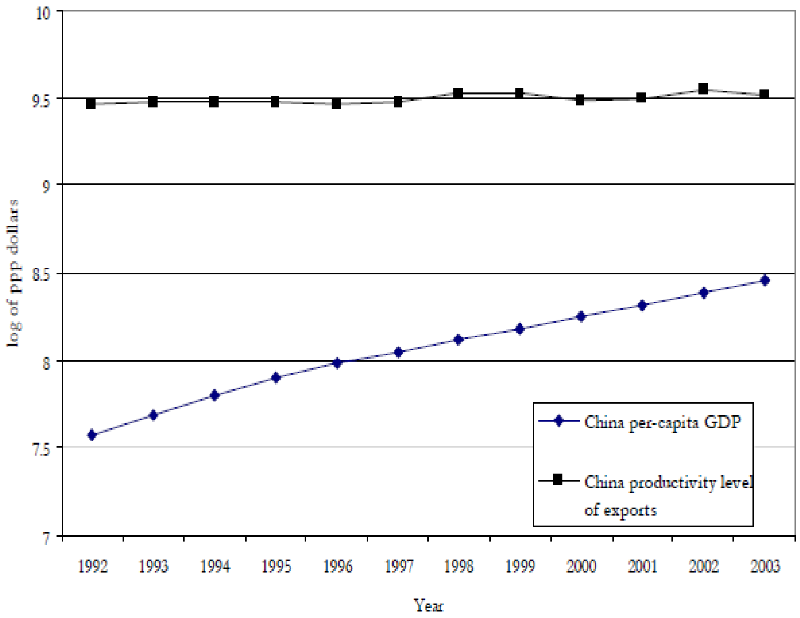
Initial Level of EXPY and Growth
(controlling for Initial Income)



Relationship between *EXPY in 1992and growth over the1992–2003period.*

- How do we know that the productivity level of a country's exports matters to economic performance?
- It turns out that there is a robust relationship between the initial level of a country's *EXPY* and the subsequent rate of economic growth experienced by that country.
- The estimated coefficient implies that a doubling of the productivity level of a country's exports results in an increase in its overall per-capita GDP growth of approximately 6 percent.
- Therefore, had China exported only those goods that countries at China's level of income tend to export, its growth rate would have been significantly lower.

Productivity Level of EX and GDP/capita

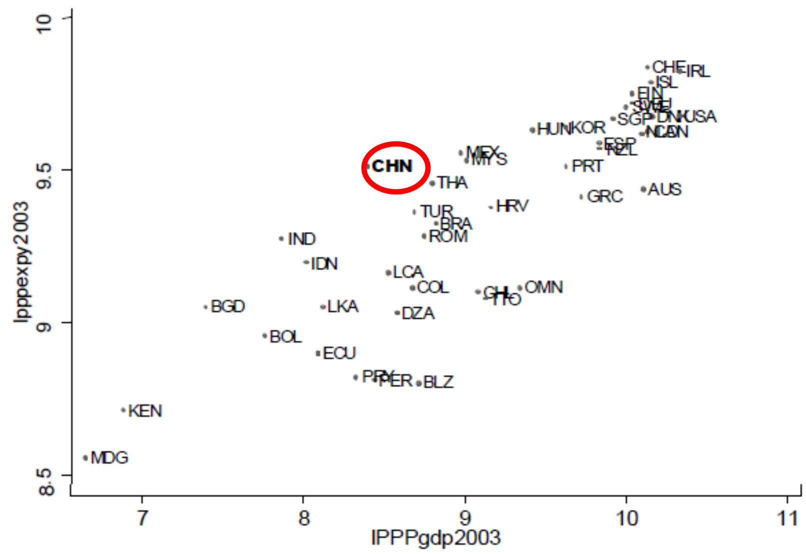


- What is precisely the mechanism that makes EXPY a potent force for growth?
- Per-capita GDP has been rapidly converging to the productivity level of the country's export basket.
- The productivity gains associated with producing a set of sophisticated exportables is spread around the economy as labor moves across industries and across space to the higher productivity exportable activities.

Challenges for China

Relationship between EXPY and per-capita Incomes in 1992

Relationship between EXPY and per-capita Incomes in 2003



Soon or later, China will have to discover new products to sell on the world market if growth continue at rates resembling recent ones.

The Roots of Success: Consumer Electronics

- Although low labor costs have helped, this cannot account for the entire story.
- Estimates by the McKinsey Global Institute (2003) show that labor productivity in China’s consumer electronics industry equals that in Mexico, a country where PPP-adjusted per-capita is almost two times larger.
- China has steadily moved away from being simply an assembler of components.
- Foreign investors have played a key role in the industry’s evolution: productive producers, source of technology, and dominate exports.

Major Consumer Electronics Firms in China by Ownership Type

Market segment	Foreign owned	Joint venture	Non-FDI
Mobile phone	• Motorola	• Motorola/Eastcom • Nokia/Capitel, Southern • Siemens/MII subsidiaries • Samsung/Kejian • SAGEM/Bird	• TCL
Personal computers	• HP • Dell	• IBM/Great Wall • Toshiba/Toshiba Computer (Shanghai) • Epson/Start	• Lenovo (previously Legend) • Founder
		• Great Wall Electronics/TCL	• Skyworth • Haier • Panda • Xoceco
"White" goods	• Siemens	• Samsung/Suzhou Xiangxuehai • Electrolux/Changsha Zhongyi • LG/Chunlan • Mitsubishi/Haier • Sanyo/Kelon, Rongshida • Sigma/Meiling • Hong Leong (SG)/Xinfei • Toshiba Carrier/Midea	• Changling • Gree

Source: McKinsey (2003), p. 83.

the McKinsey Global Institute, "the international companies' *interaction with domestic companies* has created a genuine global success story" (McKinsey 2003, p.79, emphasis added).

"The international companies' interaction with domestic companies has created a genuine global success story" (McKinsey, 2003, p. 79).

Implications

- China has an export basket that is significantly more sophisticated than what would be normally expected for a developing country.
- Government policies have helped nurture domestic capabilities in consumer electronics and other advanced areas that would most likely not have developed in their absence (hence, infant industry argument).
- What stands out is that China sells products that are associated with a productivity level that is much higher than a country at China’s level of income.

China Plus One Strategy

Stuart Witchell and Philippa Symington (2013)

- For the last 20 years, many Western companies have invested in China, drawn by its low production costs and enormous domestic consumer market.
- In recent years, the cost advantage has diminished, while other business challenges have emerged. As a result, many MNCs are looking to exploit opportunities in other growing Asian markets both to hold down costs and to reduce overdependence on China.

China Plus One Strategy Has Several Benefits

- Cost control — Workers in SE Asian countries generally are less expensive.
- Risk diversification — Spreading production across several markets hedges future investment in China by leaving producers less vulnerable to supply chain disruptions, currency fluctuations and tariff risks in any individual market.
- New market access — For an economy such as Myanmar, the world's newest frontier market that seems poised for rapid growth, it can be an advantage to become established in the country early.

Plus Which One? Deciding Where to Diversify

- Labor costs — Average labor costs are similar in China and Thailand but are significantly lower in countries such as Vietnam, Indonesia and Myanmar.
- Infrastructure — China and Thailand in the middle group for infrastructure attainment, Vietnam, Indonesia and Myanmar were among the bottom six counties in East Asia.
- Country risk — A recent cross-border risk analysis showed that all the Asian alternatives are riskier than China, but that some of them (including Thailand, Indonesia and Vietnam) are not significantly so.

Plus Which One? Deciding Where to Diversify (cont.)

- Market size — If companies plan to sell domestically, it makes sense to consider the size and attractiveness of local markets, as well as how those markets likely will change over the next decade.
- Major Customers — Sometimes the decision of a single manufacturer has ripple effects (Supply chain).
- Managing the Risks — Finding a reliable partner, avoiding corruption and smoothing the transition

Wage Overheads in Emerging Asia

Country	Average minimum annual salary (worker, Intl. $)	Average mandatory welfare (% against salary)	Total labor cost (Intl. $)
Bangladesh	798	n/a	798
Cambodia	672	n/a	672
China	1,500	50	2,250
India	857	10	943
Indonesia	1,027	6	1,089
Laos	1,057	9.5	1,157
Malaysia	4,735	23	5,824
Mongolia	2,004	n/a	2,004
Myanmar	401	n/a	401
Nepal	1,889	n/a	1,889
Pakistan	984	7	1,052
Philippines	2,053	9.4	2,246
Sri Lanka	1,619	n/a	1,619
Thailand	2,293	6.9	2,451
Vietnam	1,002	15	1,152

The China Plus One Model and the Comparative Advantages of Manufacturing in Vietnam

Dezan Shira & Associates (2015)

- The state of manufacturing in Vietnam today so closely parallels that of China ten or more years ago
- Many foreign investors with existing China operations are actively inquiring about the payoffs of moving to Vietnam.
- As China moves further up the value chain in manufacturing, Vietnam has been well-poised to pick up the slack.
- As a result, Vietnam's manufacturing sector grew at a compound annual growth rate of more than 9 percent between 2005 and 2010 and today accounts for roughly a quarter of its GDP.

Vietnam: China Plus One?

- Since Vietnam's accession to the World Trade Organization in 2007, FDI into the country has exceeded investment into Indonesia, the Philippines, and Thailand combined.
- According to Deloitte's Manufacturing Competitiveness Index, Vietnam is on track to jump eight ranks among global manufacturers over the next four years, to tenth overall.
- As of 2009, there were more than 415,600 registered manufacturers in the country, with the majority small and micro enterprises serving the domestic market.
- These are contrasted with large, foreign-invested enterprises manufacturing almost exclusively for export, with little integration between the two.

Is Vietnam your China Plus One? (cont.)

- The Vietnamese government encourages manufacturing through special zones featuring lower corporate income tax rates and limited-duration tax exemptions.
- Wages are at the lower end of the spectrum across Asia's manufacturing hubs, at nearly half those of China.
- Recent government reports have emphasized the development of technology, mechanics, information and communications technology, and pharmaceuticals.