

International Trade and FDI

Bhanupong
Lecture 18

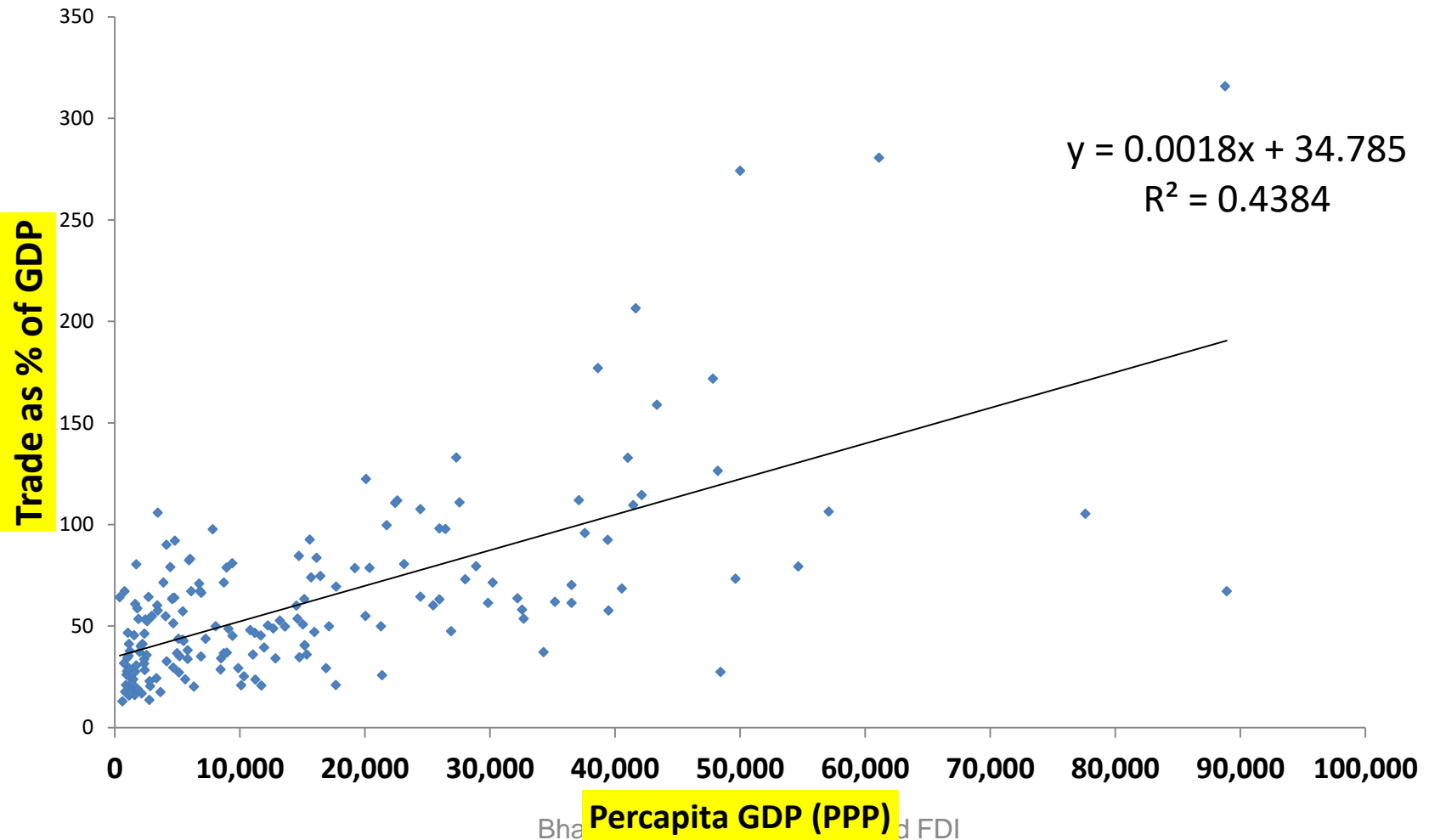
*“The propensity to truck, barter and exchange one thing for another is common to all men and to be found in no other race of animal” **Adam Smith.***

Main Themes

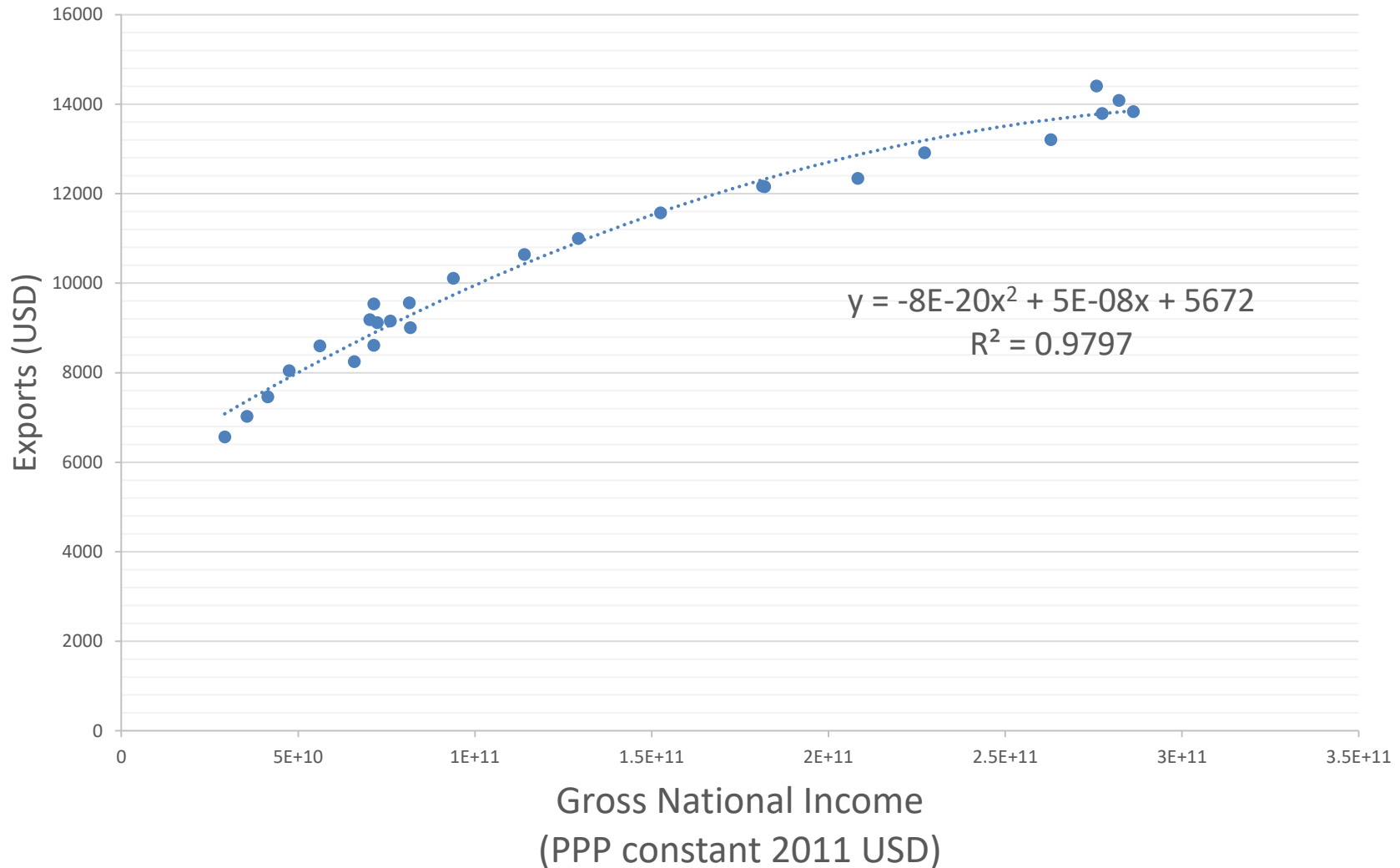
1. Trade and economic development
2. Trade in primary products
3. Growing volume of network trade
4. GFC and China's slowdown
5. FDI and manufactured exports
6. Dwindling FDI and export capability

1. Trade and Economic Development

Trade and Economic Development: Cross-Section Data



Thailand's Exports: Handmaiden of Growth (1990-2015)



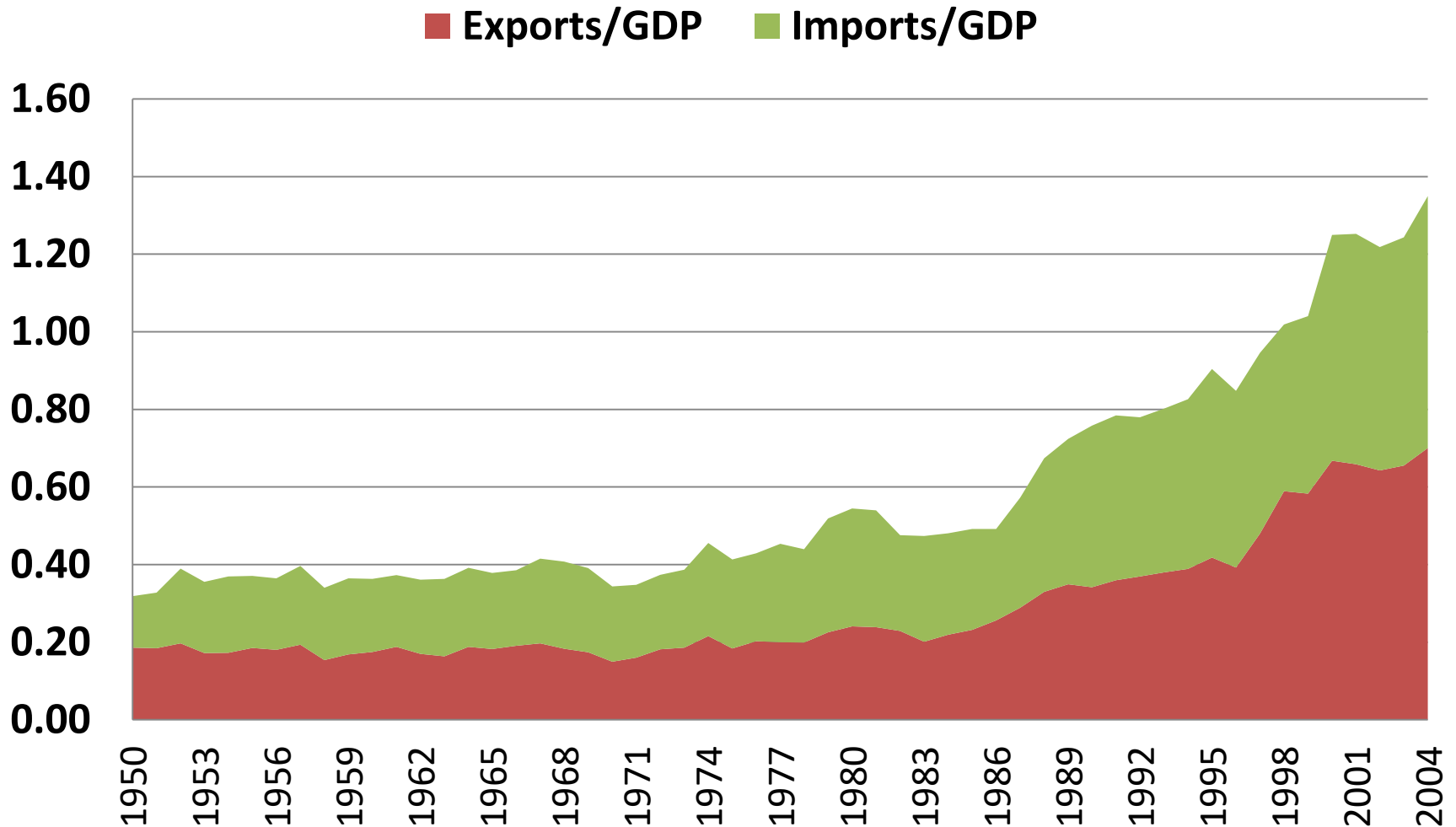
Three views on international trade and economic growth

- Trade **hampers** growth for natural resource-abundant countries that specialize in the export of technologically stagnant primary products;
- Trade acts as the '**handmaiden**' of growth by improving the quality of investment and slowing the tendency of its return to fall
- Trade acts as the **engine of growth** by providing a conduit for technology transfer.

An Export-driven Economy



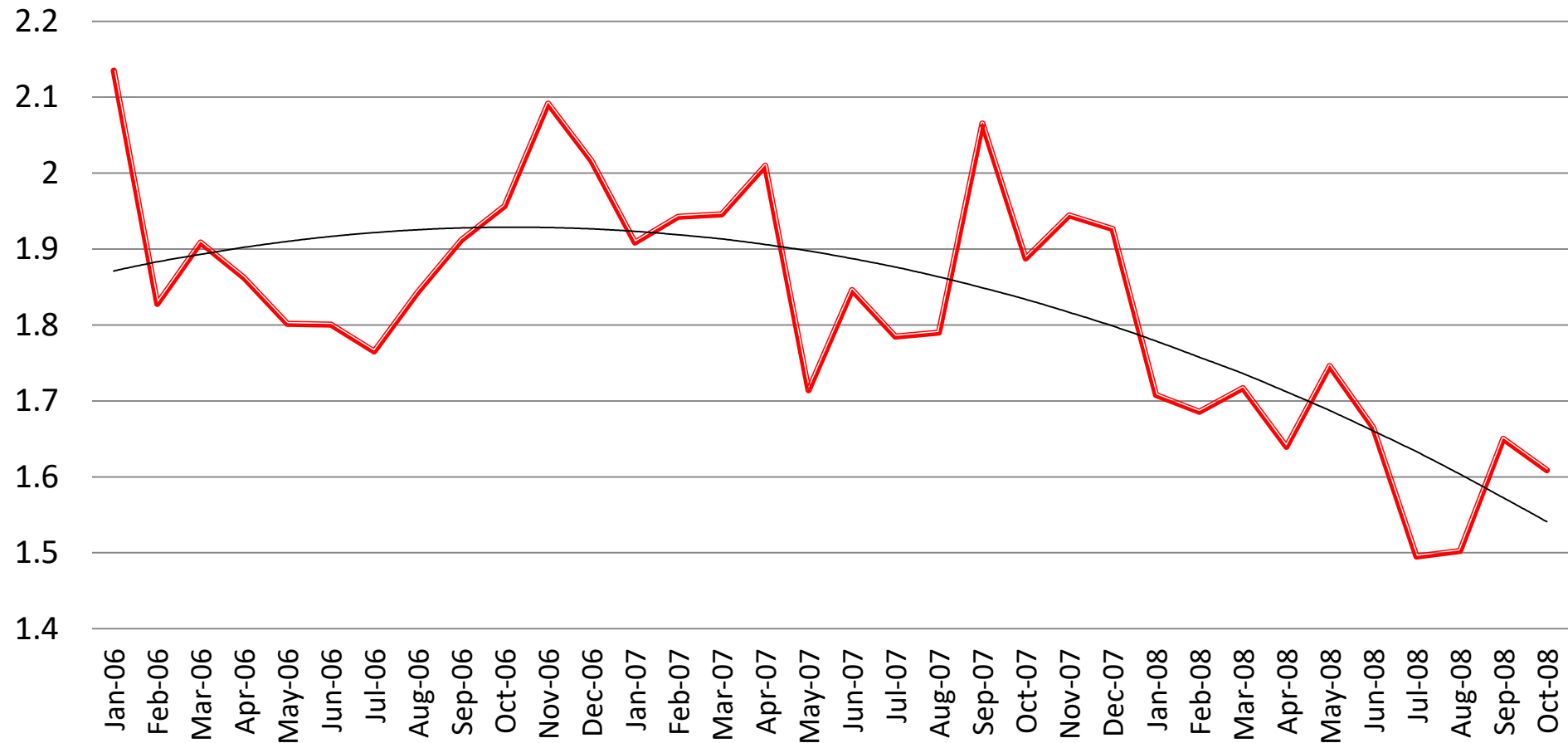
Trade Liberalization: 1950-2004



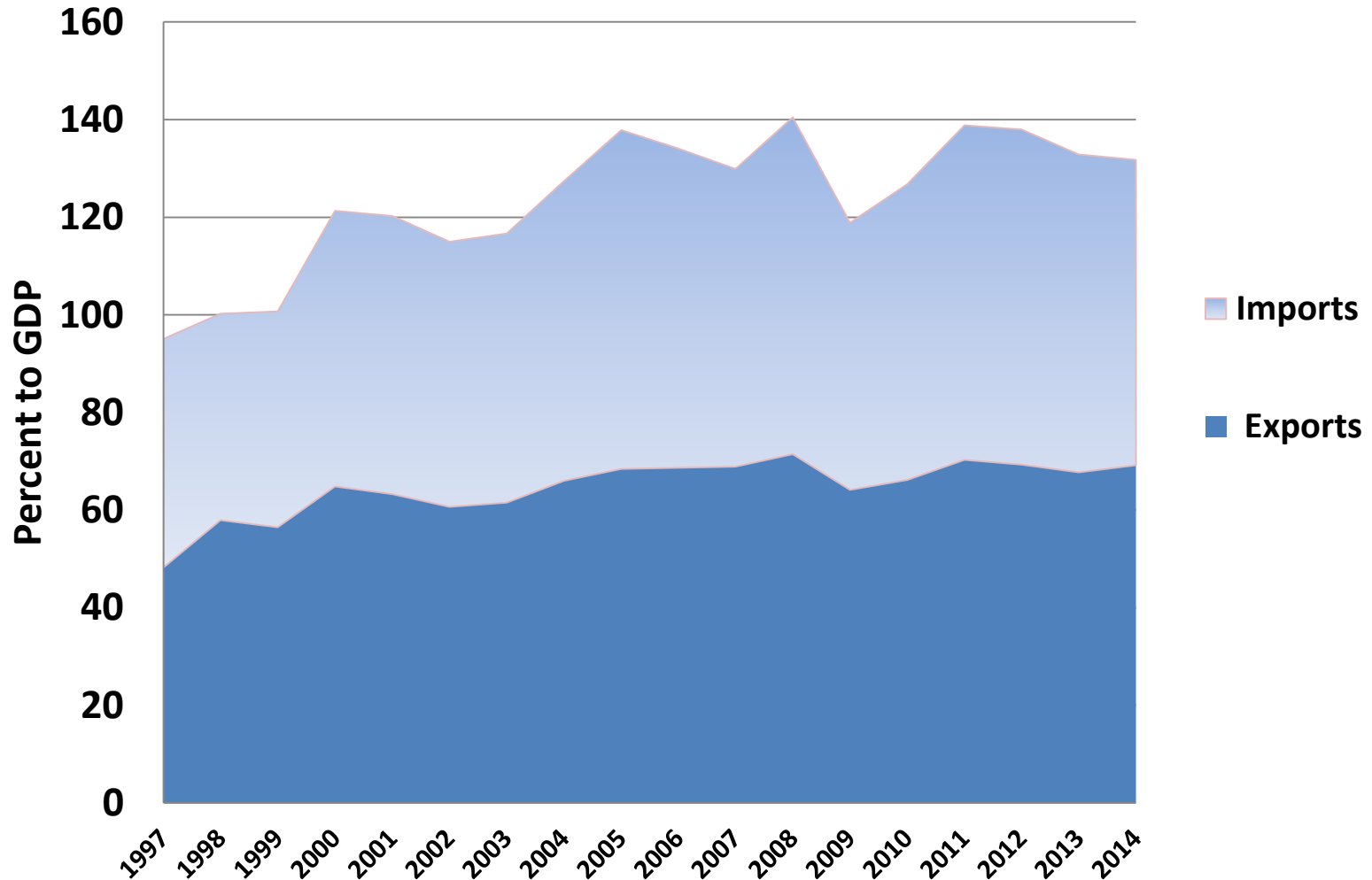
Trade Reform: Reducing tariff rates

Thailand's implied tariff rate

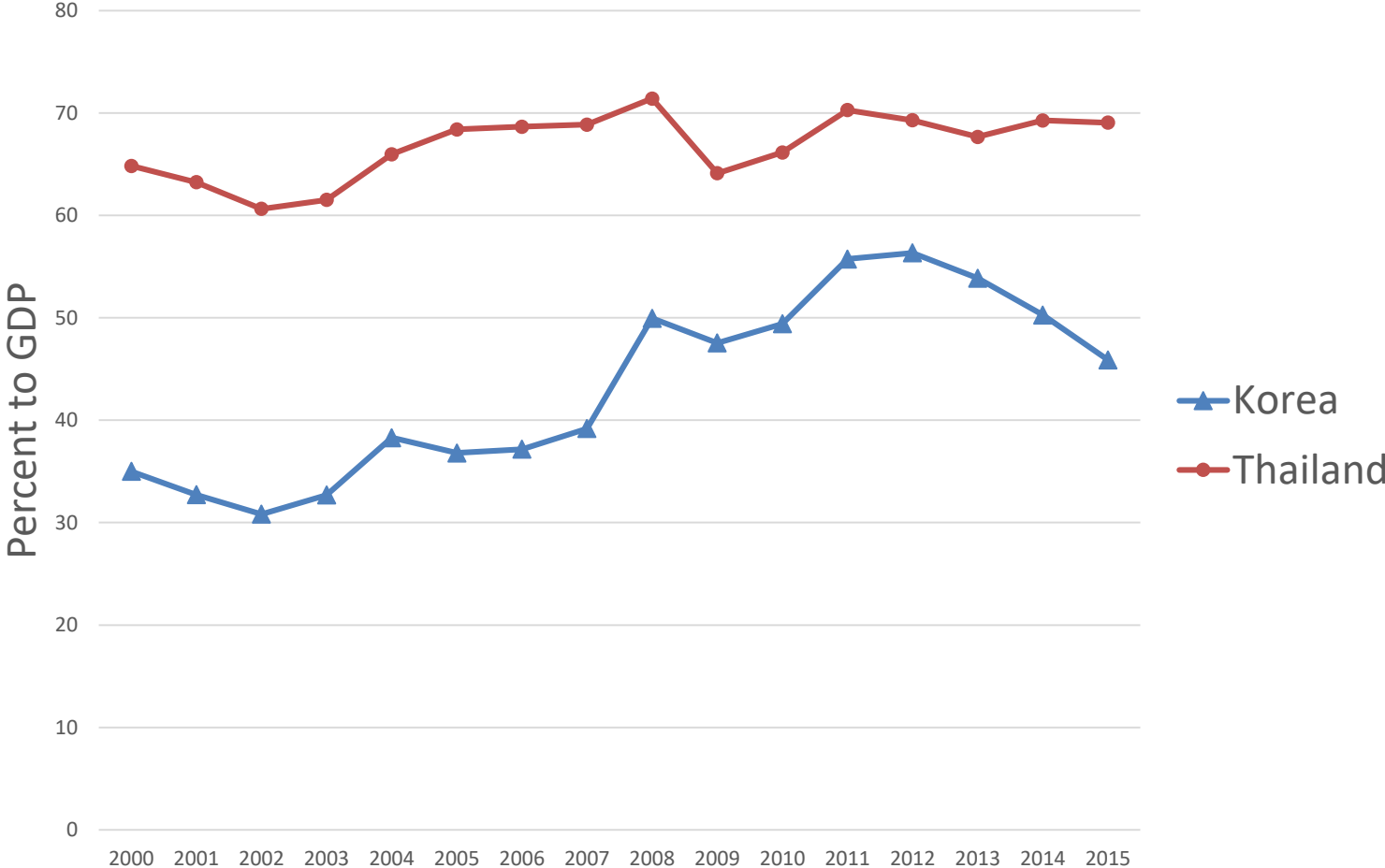
customs revenue to total imports(%)



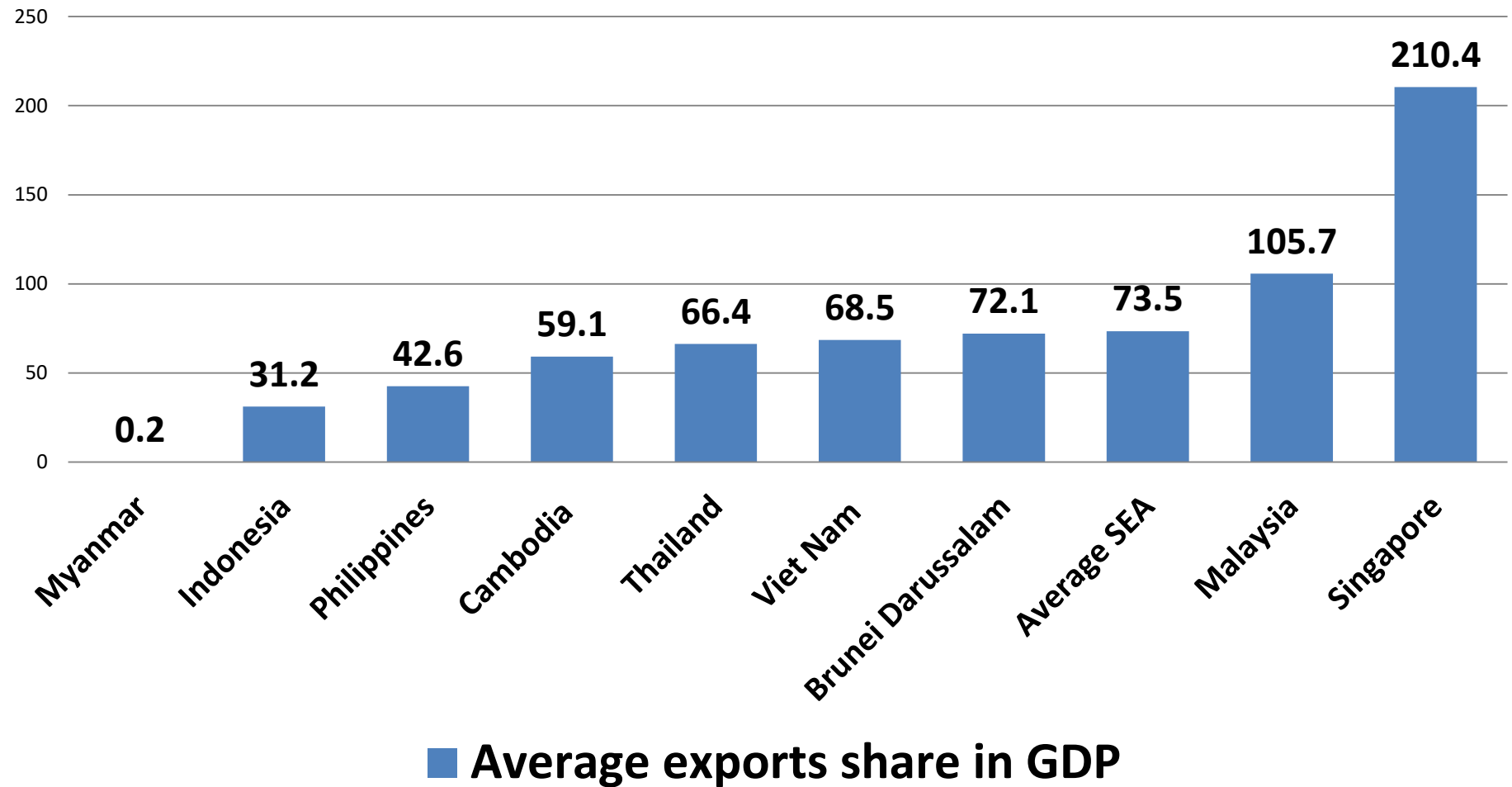
Thailand's Trade Exposure After AFC 1997-2014



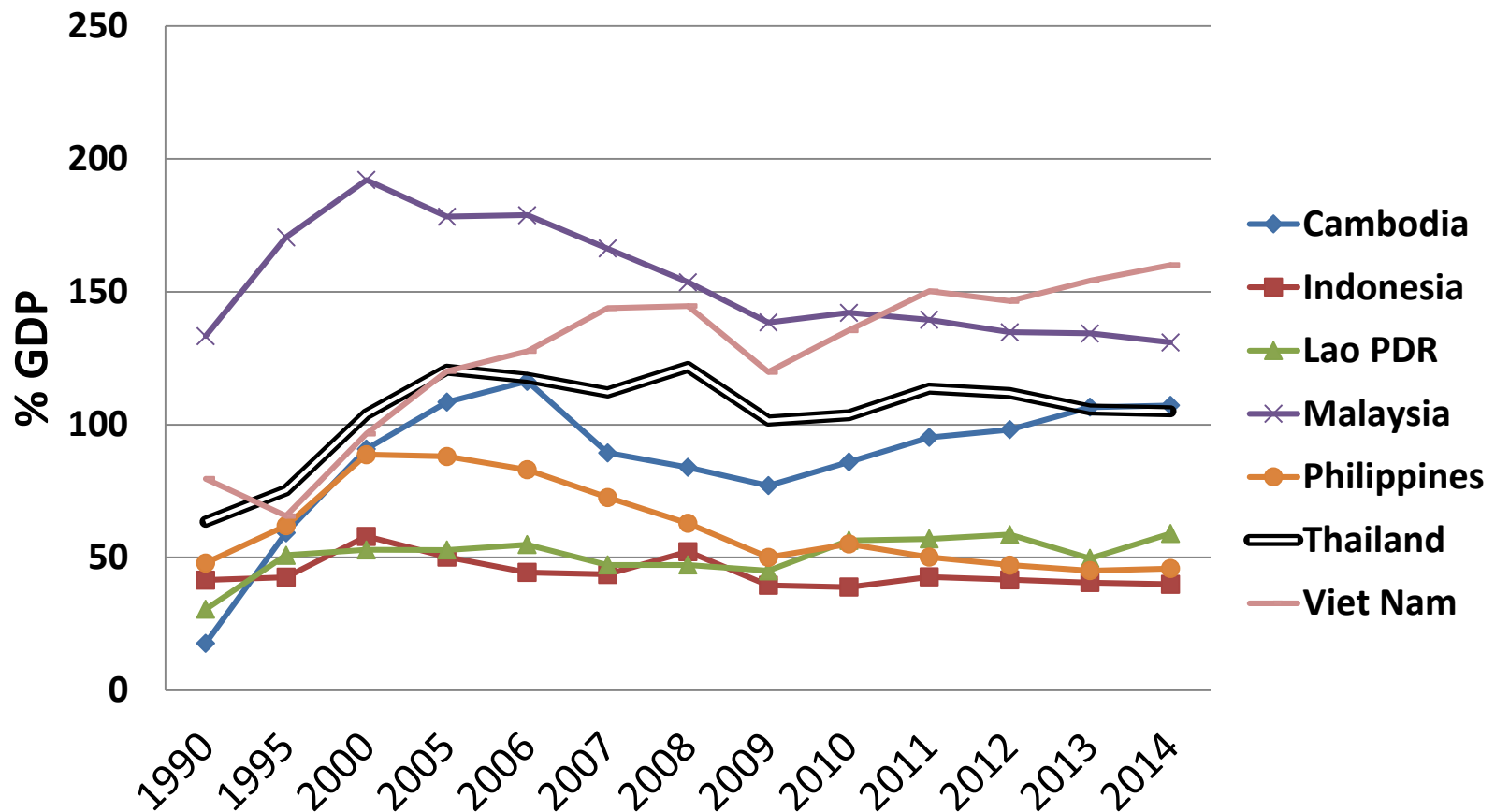
Export Dependency in Comparison



Outward vs. inward oriented Southeast Asian economies: 2000-2011



Trade Exposure or Degree of Trade Openness: Sum of merchandise exports and imports (% GDP)



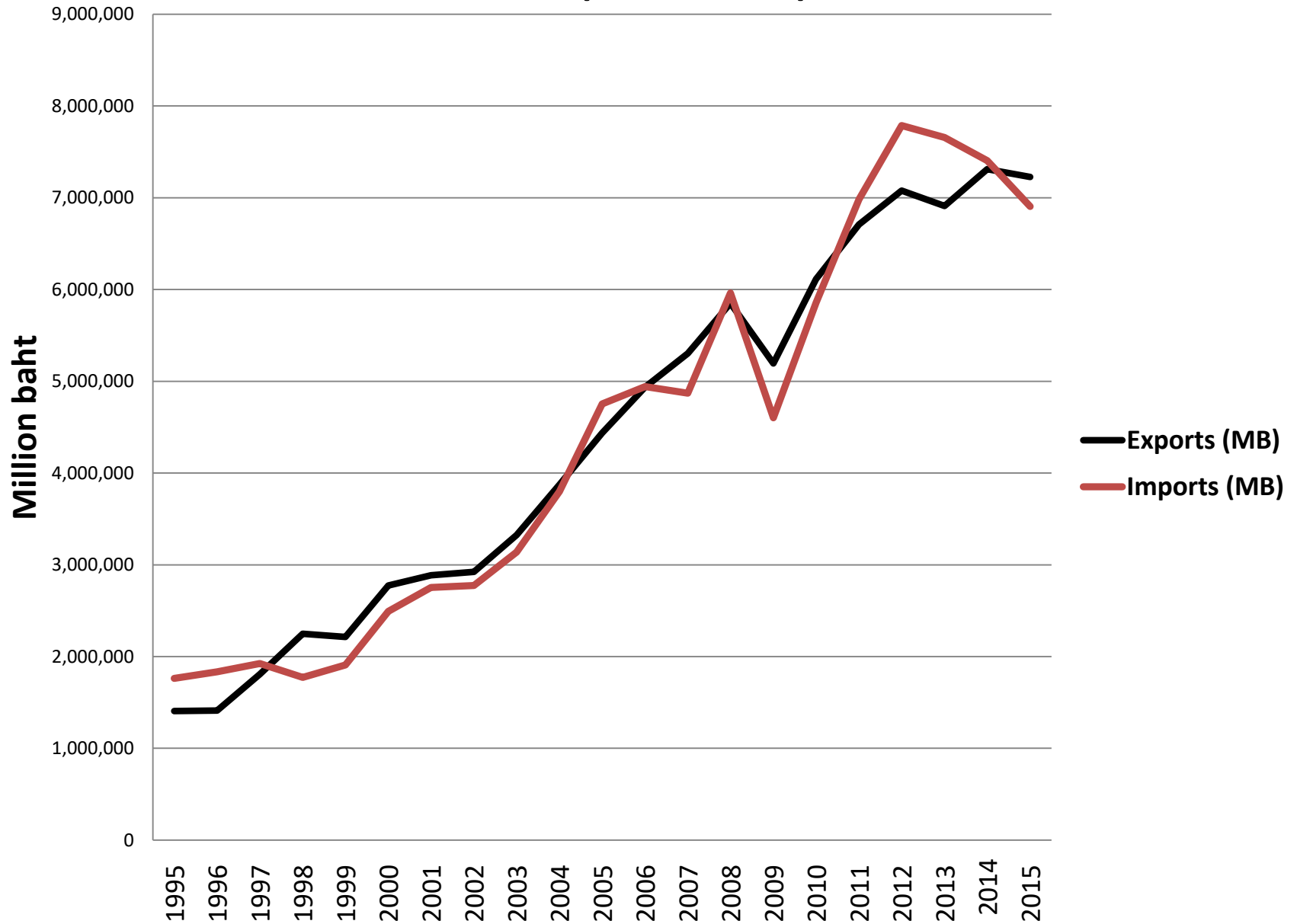
Adverse impact of globalization

- Exposure to external shocks
- Export dependency
- Increase business synchronization
- Destroy traditional (uncompetitive) sectors
- Tariff reduction and trade liberalization

What globalization can do

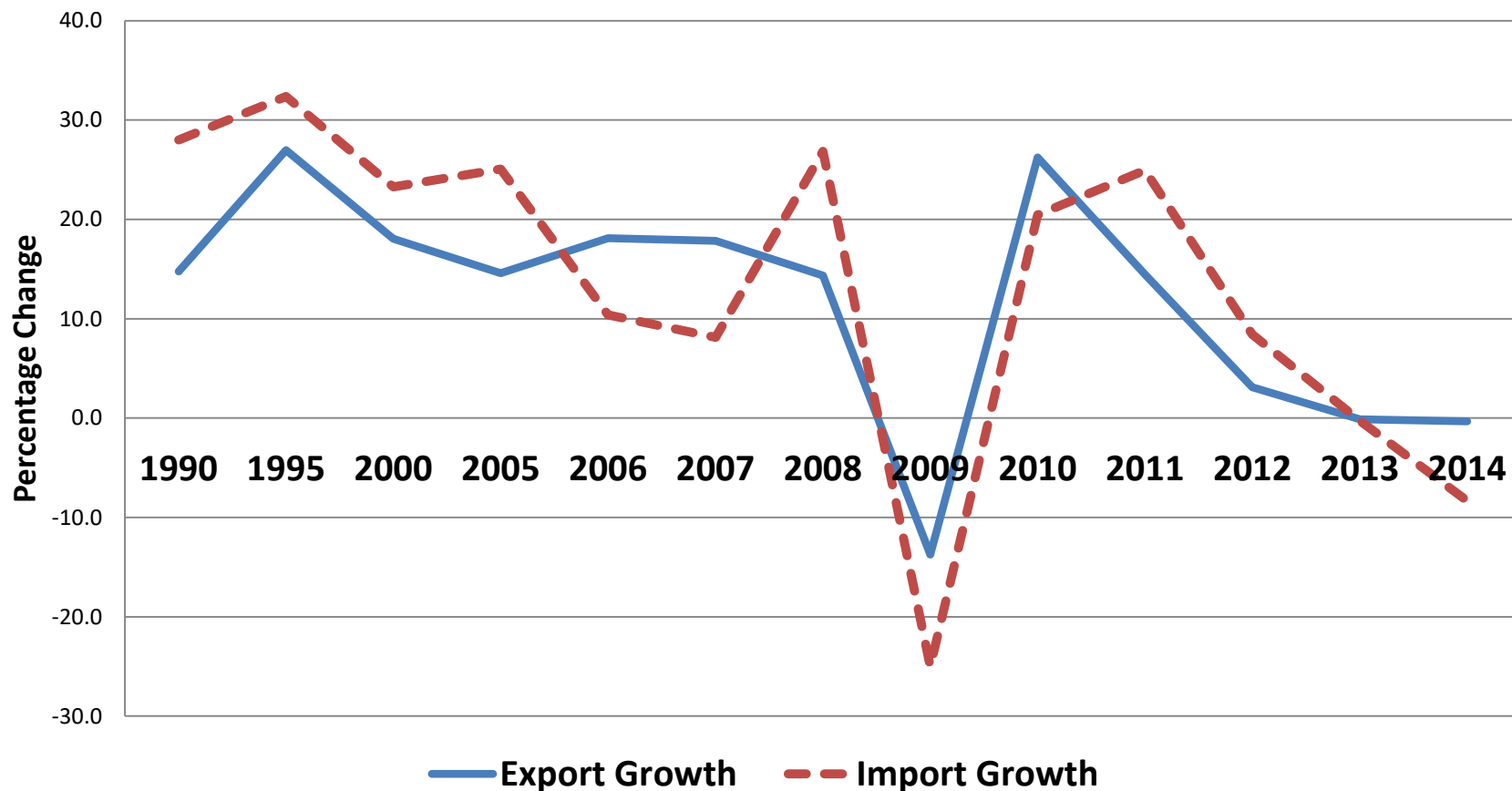
- High exports can sustain output growth
- Imported capital goods raise productivity
- World competition exposure leads to efficiency improvement.
- Exploitation of economies of scale
- Outward oriented development strategy
- Improve resource allocation as production is dictated by comparative advantage.
- Encourage inflows and outflows of foreign direct investment

Co-movements of exports and imports levels: Causation?

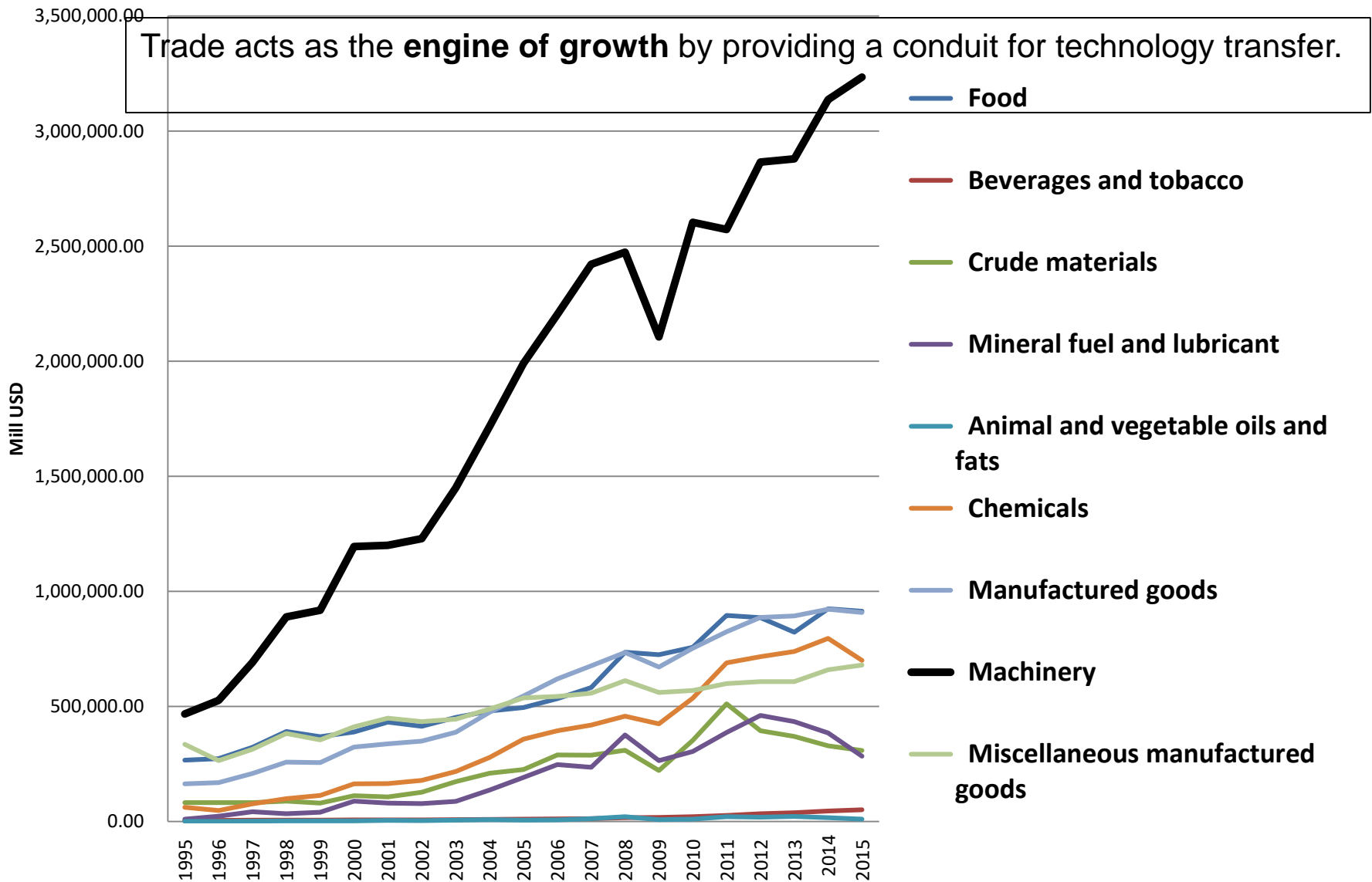


Thailand's Imports and Exports Nonspurious Relationship (1990-2014)

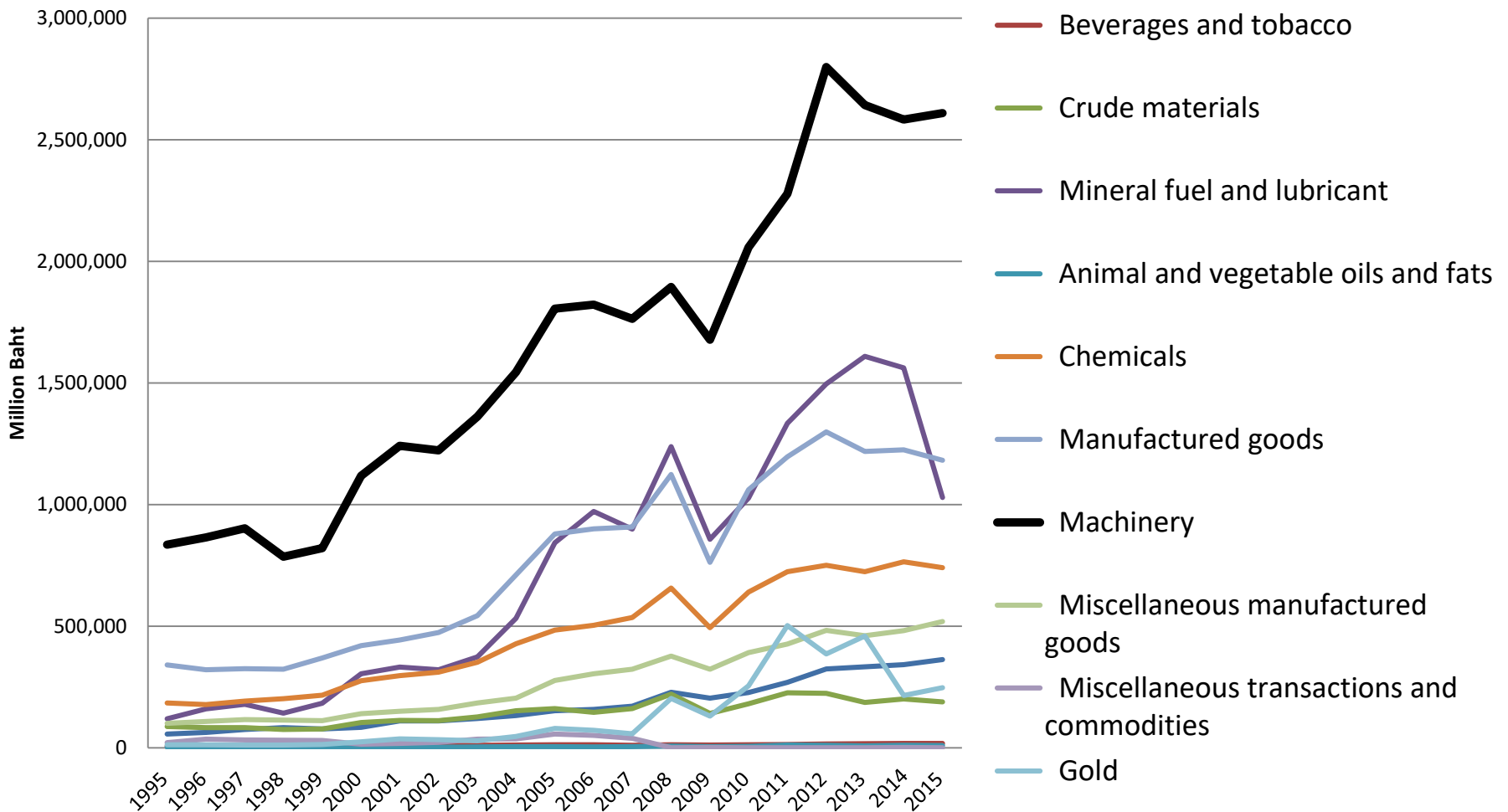
Exports and Imports Growth



Thailand's changing pattern of exports 1995-2015



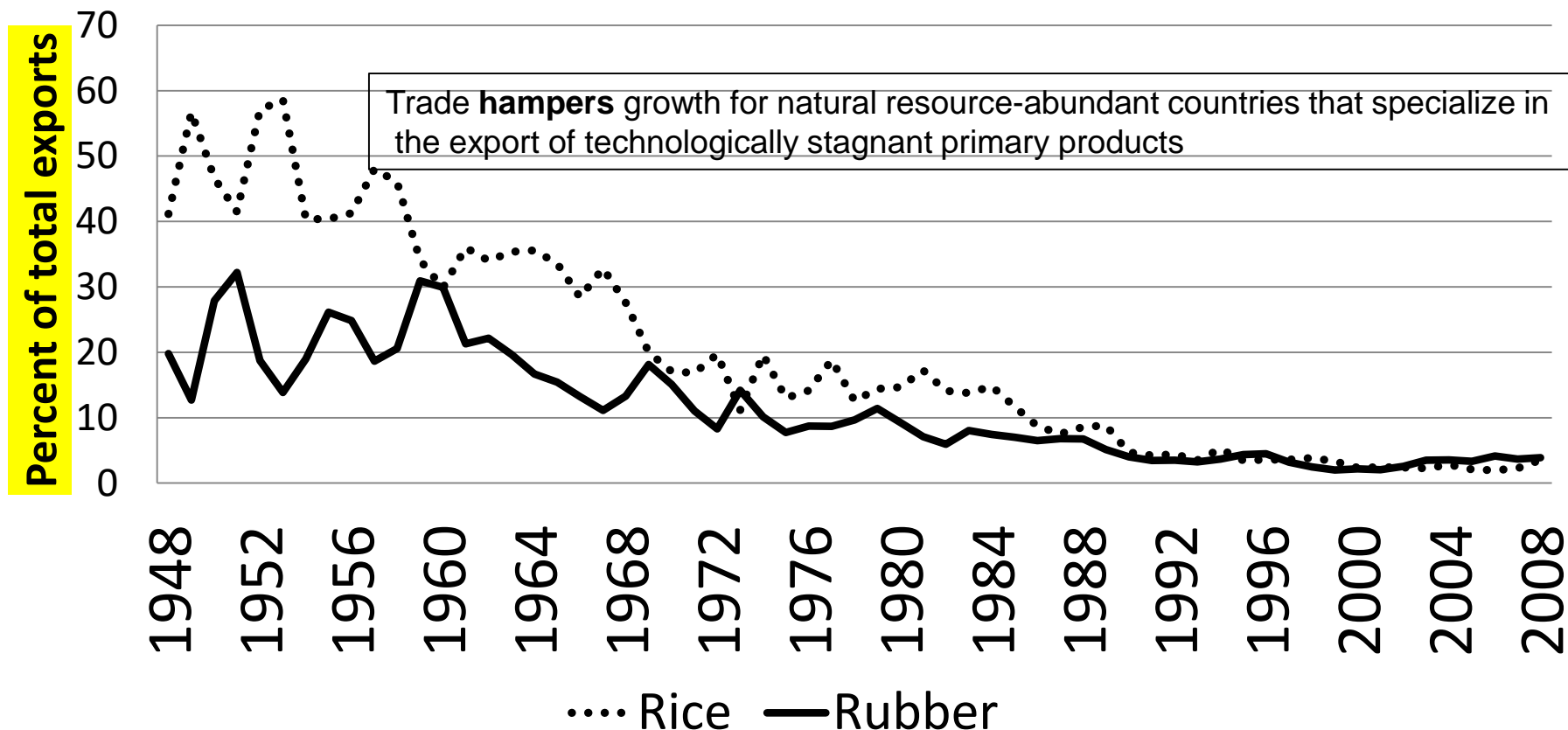
Thailand's Changing Pattern of Imports 1995-2015



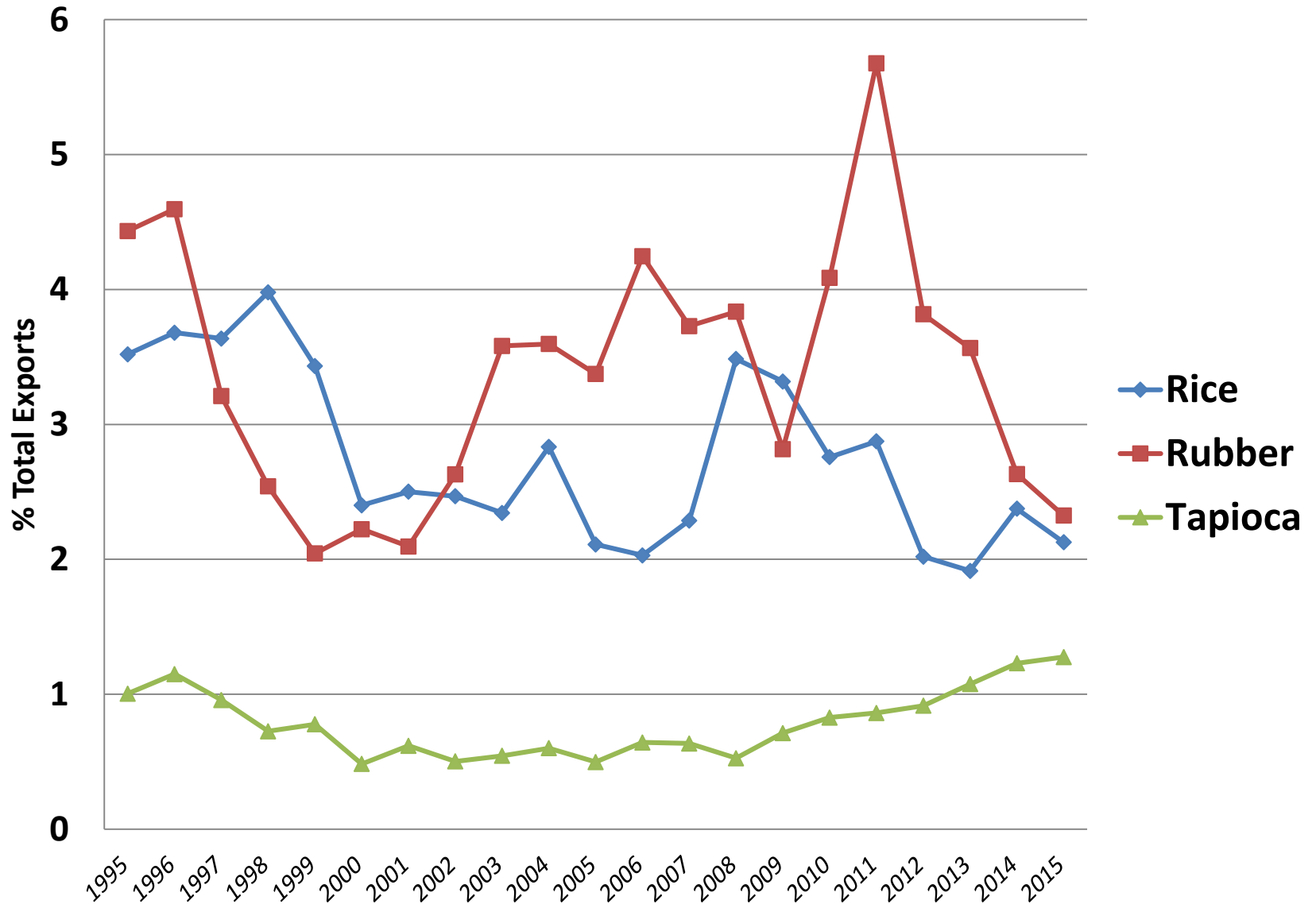
Trade acts as the 'handmaiden' of growth by improving the quality of investment.

2. Trade in Primary Products

Shares of traditional primary exports: Rice and Rubber (1948-2008)



Share of Thailand's primary exports: 1995-2015

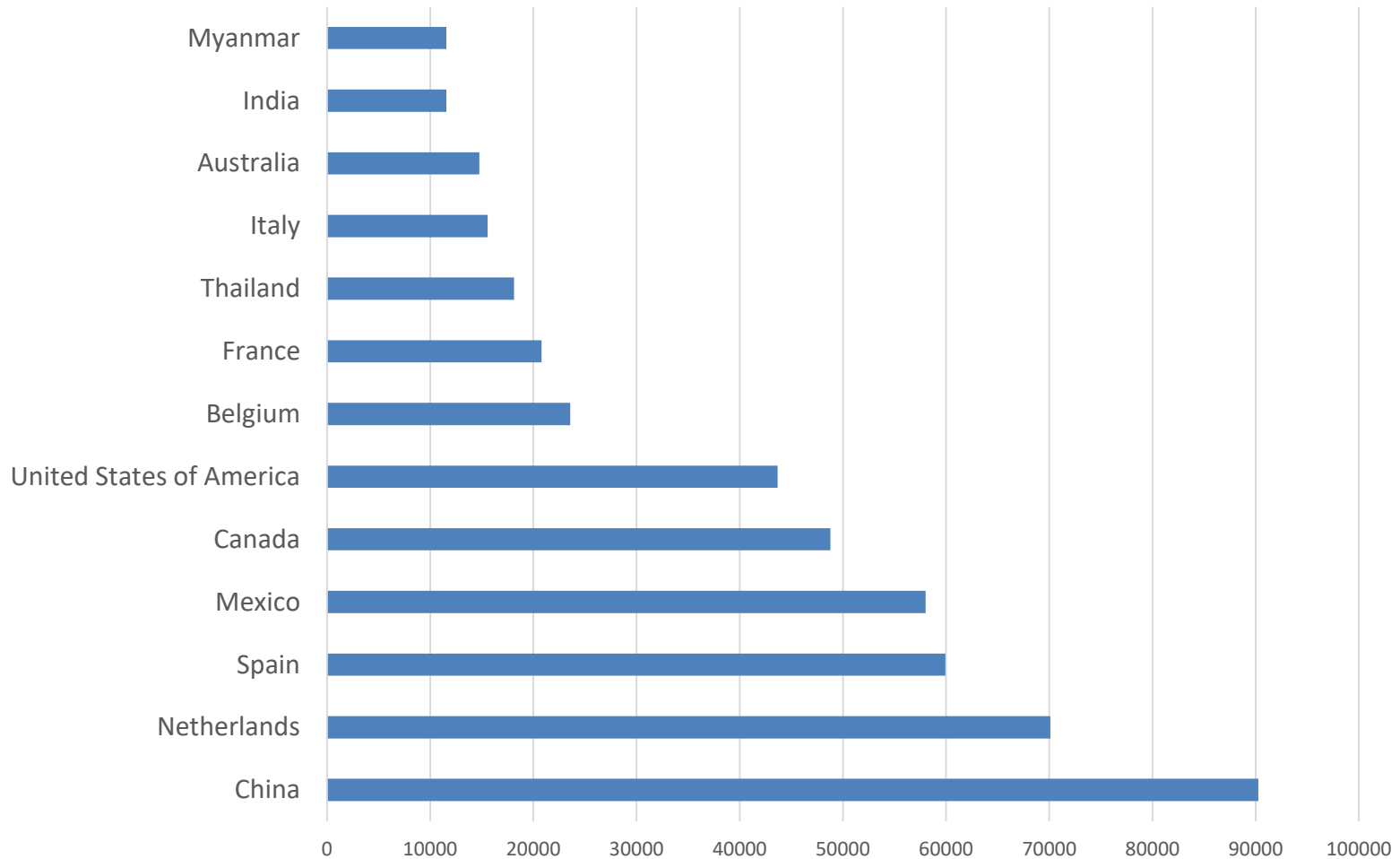


Trade in primary products

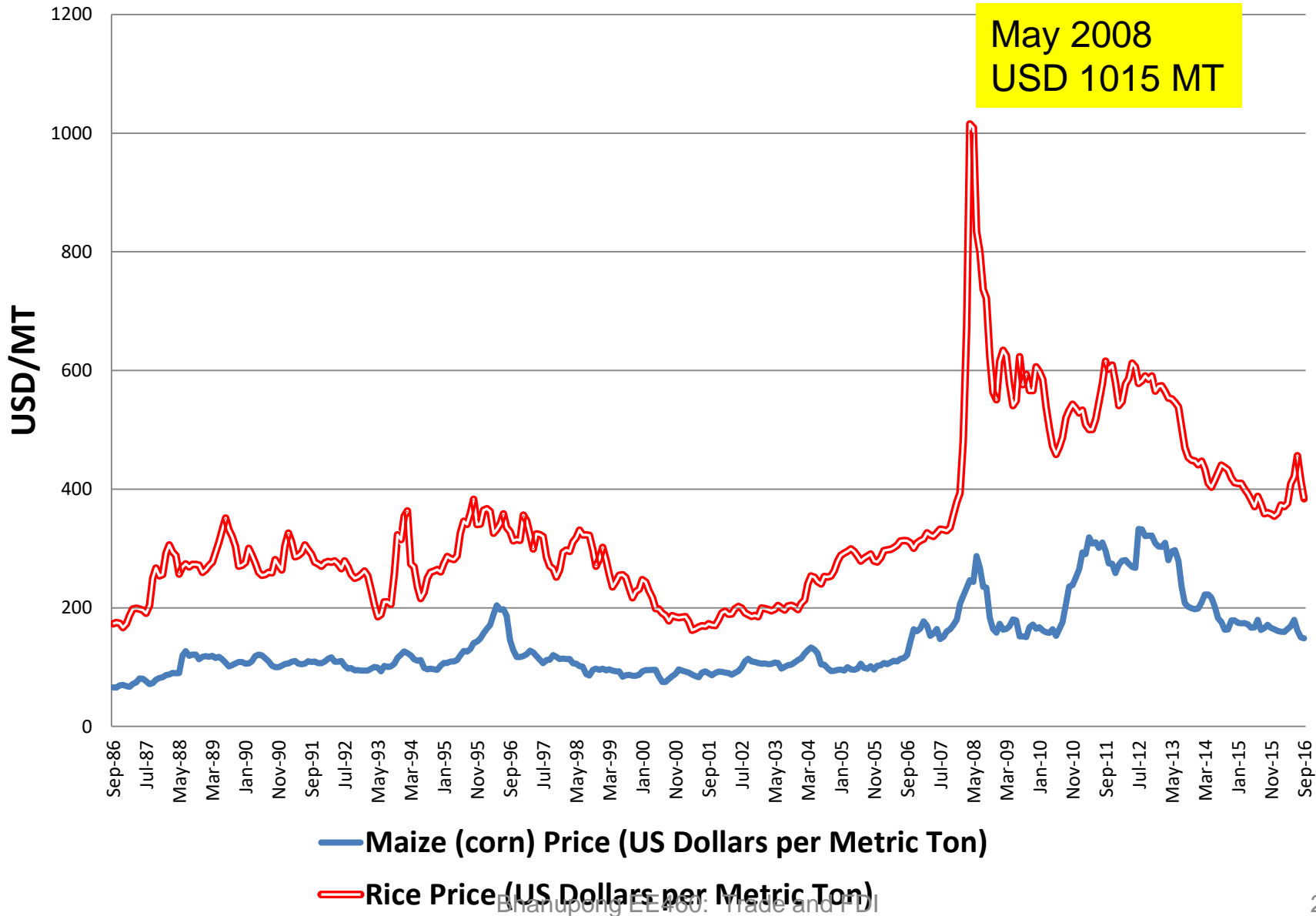
- Primary goods are non-differentiated commodities whose prices are mainly set in commodity exchanges.
- ***Factor endowments*** are the main determinant of trade in mineral and agricultural commodities.
- With dissimilar production functions, ***technology gaps in agriculture***, along **with factor endowments**, are determinants of trade in agricultural goods such as rubber, rice, and vegetables.

Trade in Primary Products

Edible Vegetables: Product 07
Value exported in 2015 (USD thousand)



Export Prices of Rice and Maize Sep 1986-Sep 2016



Why did food prices soar in 2008?

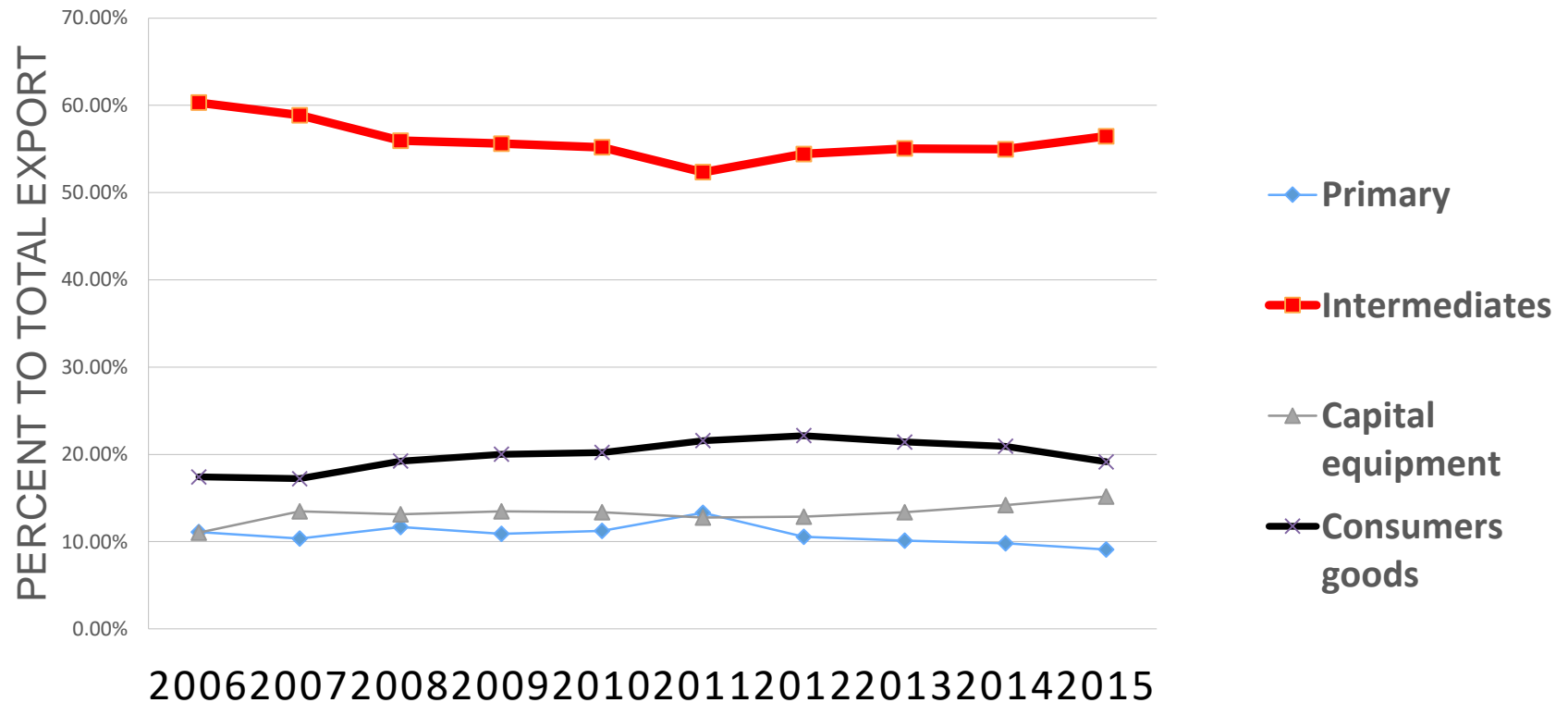
- High prices were triggered by the 2007 drought in Australia, the worst for a century, which halved its wheat harvest. But there were more fundamental background factors.
- As countries like China, India, Brazil and Russia have got richer they have begun eating more.
- Rich people don't just eat more than poor people, they eat *differently*.
- ***The demand for meat in developing countries has doubled since 1980;*** In India it is up 40 per cent, China 50 per cent.
- ***And because cattle and chickens are fed on corn – it takes 8kg of grain to produce 1kg of beef – the price of all cereals has been forced up.***

Biofuels

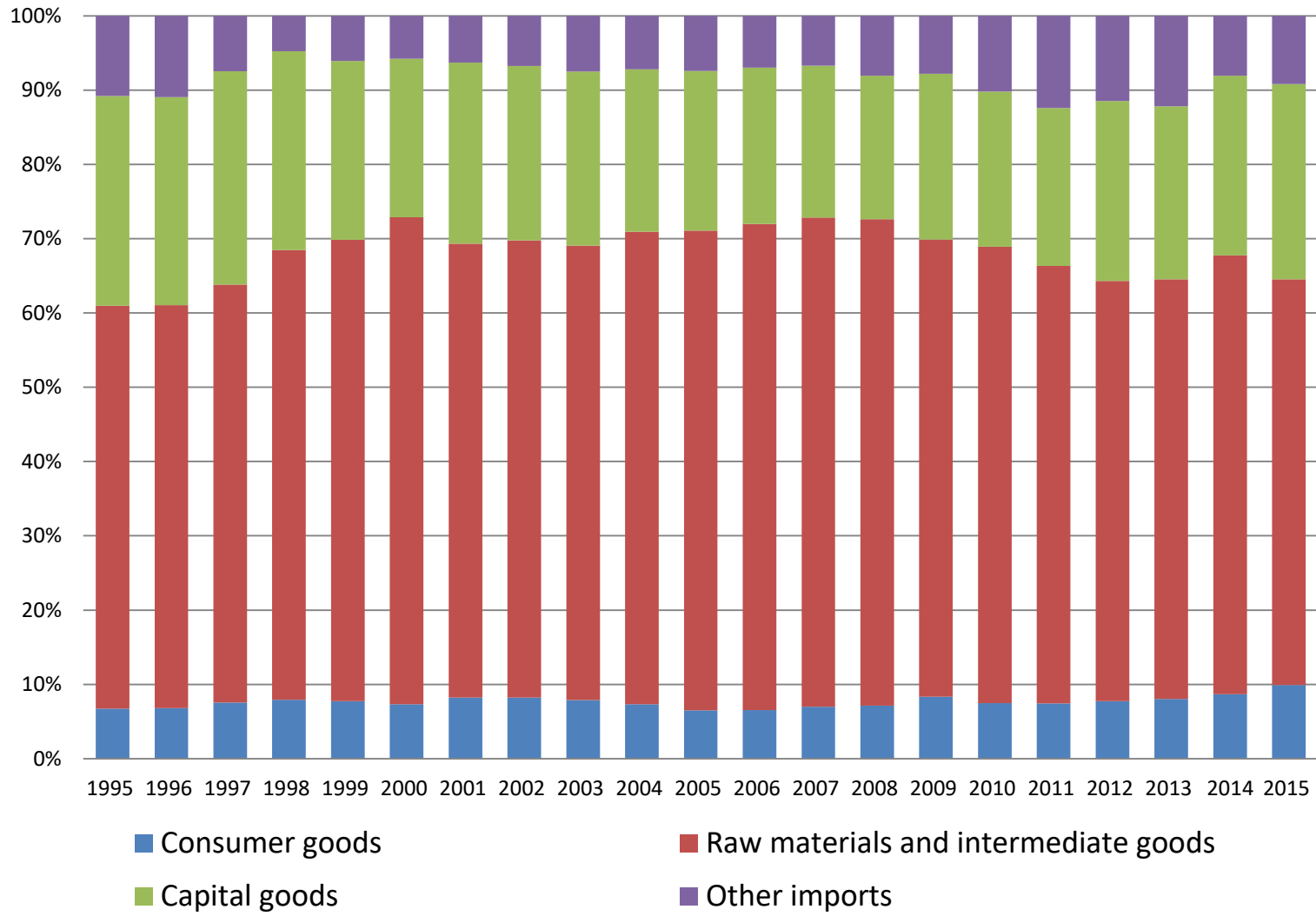
- Added to that was love affair with biofuels.
- Instead of buying plant ethanol from sunshine states like Brazil, the Americans have been trying to grow their own – with oil-based fertilizers and by subsidizing US farmers.
- A third of its maize crop goes to fuel cars, in a bid to lessen its dependency on oil from dodgy dictators in the Middle East.
- ***The price of cereals had rocketed as a result.***

3. Growing volume of network trade

PERCENTAGE OF EXPORT VALUES BY STAGE OF PROCESSING



Thailand's Import Structure



Rising network trade

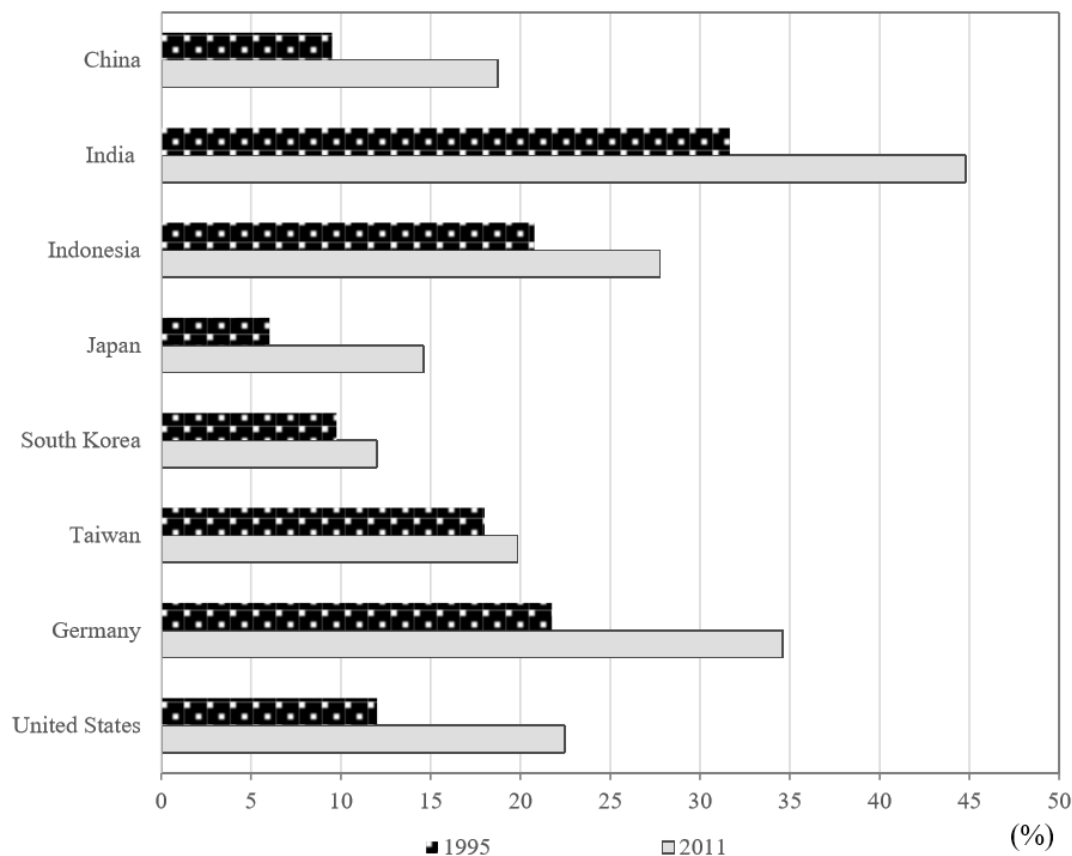
- Network trade is expanding much faster compared to conventional product-based trade (24 % of total manufactured exports in 1993, 45.5% in 2007).
- There is a shift away from mature industrial economies towards developing countries .
- Developing countries' share in network exports rose from 25 % in 1993 to 41% in 2007.

Network trade in East Asia

- The degree and intensity of participation *of East Asian Economies in network trade* is much greater compared to countries in other parts of the world.
- China has become an integral part of global production networks—a premier center of final assembly.
- Clear evidence of **trade complementarity** rather than crowding out (substitution) effect.

Share of imported intermediate inputs in total intermediate inputs in manufacturing industries

Figure 3. International Fragmentation of Production

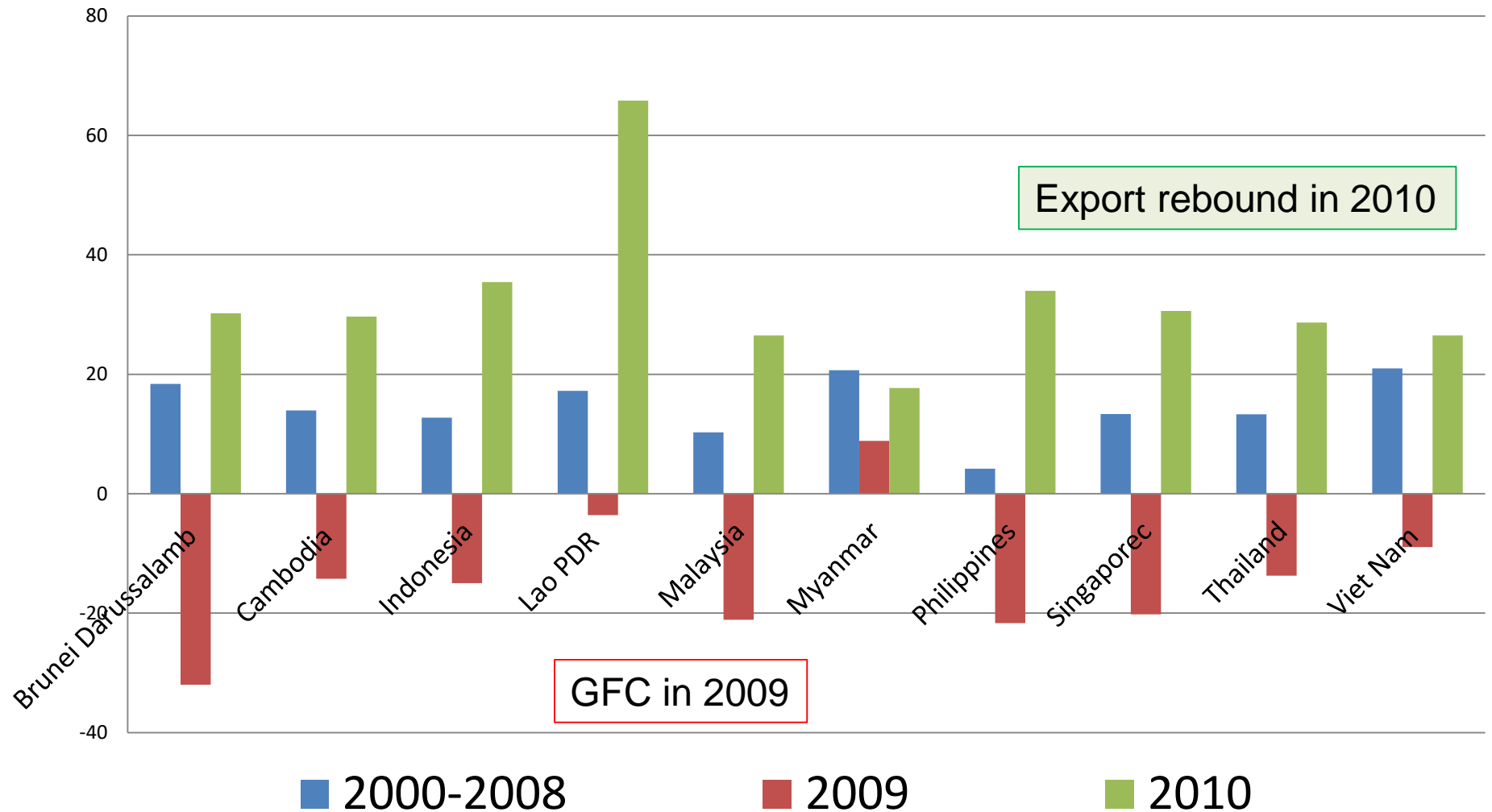


Note: The figure shows the shares of imported intermediate inputs in total intermediate inputs in manufacturing industries in 1995 and in 2011.

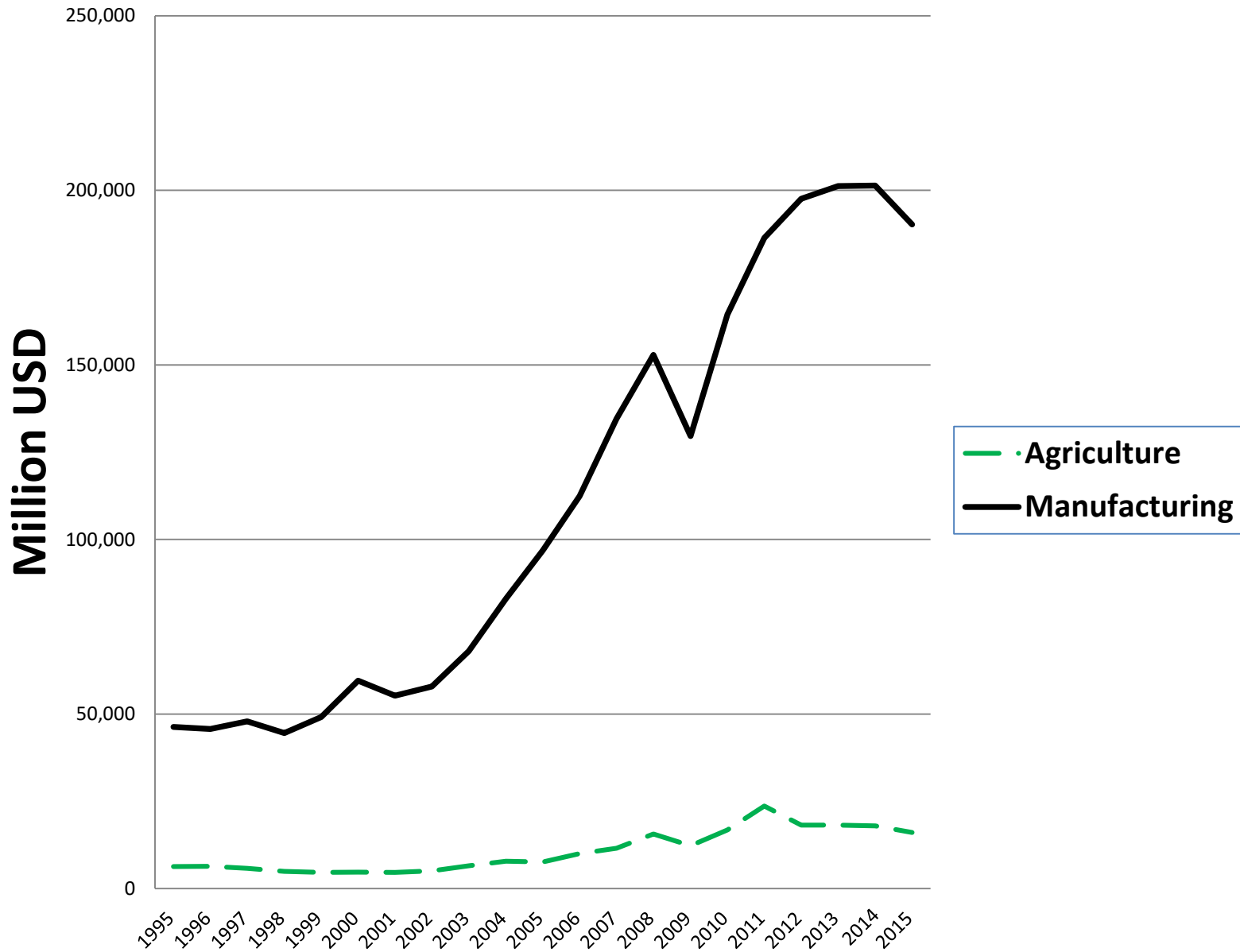
4. GFC and impact of China's slowdown

- A sharp contraction in world trade following the onset of the global financial crisis at a faster rate than in the Great Depression
- ***Trade contraction experienced by the East Asian countries has been even faster.***
- Contraction of trade credit (due to global financial crisis)
- Greater share of ***consumer durables*** in world trade volume slowdown
- Parts and components trade have been more susceptible to the global economic slowdown compared to trade in **final assembly** and total trade.

Impact of GFC on Exports Growth Rate: 2009 (% growth)

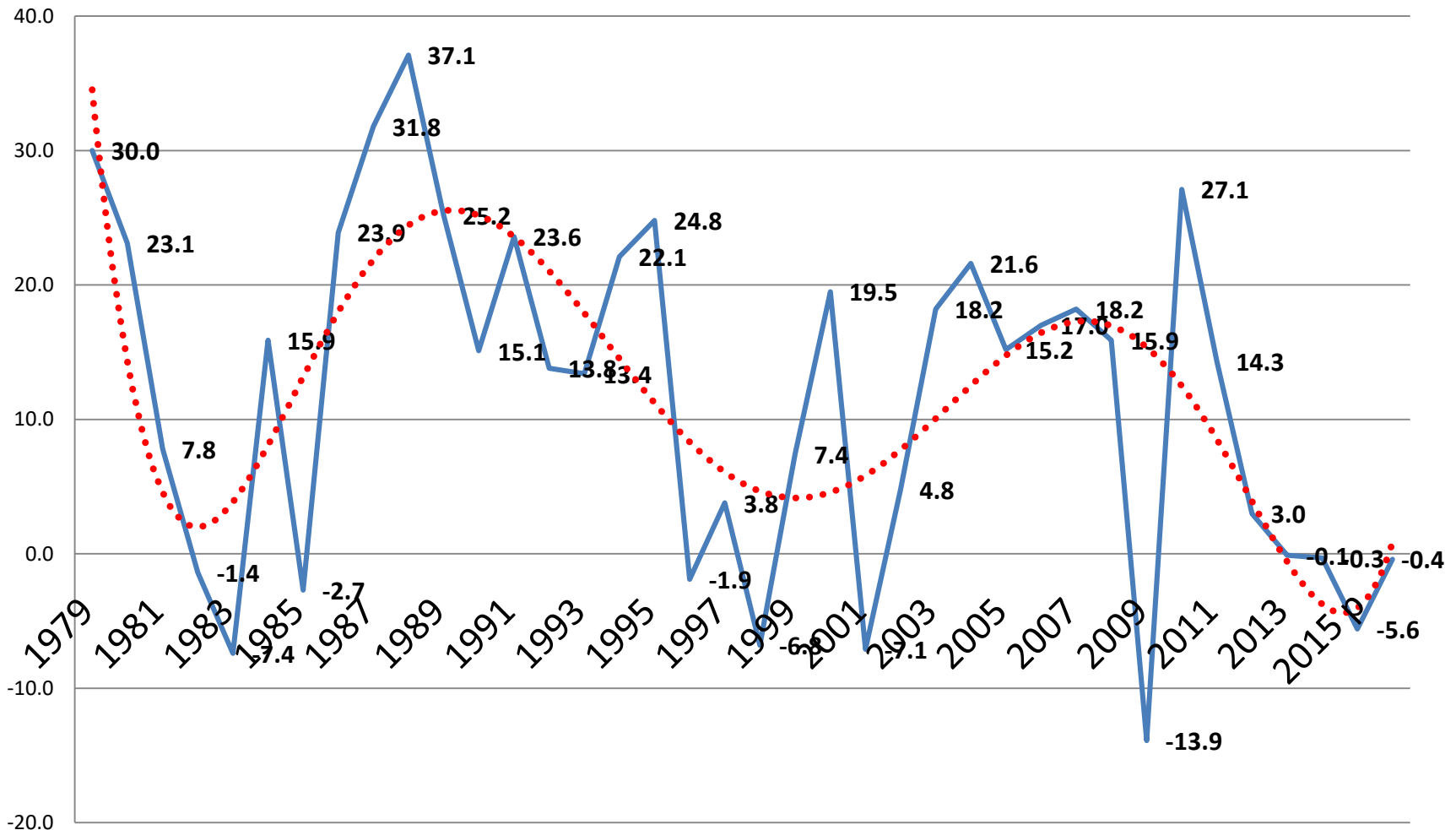


Thailand's export growth engine: A complete shutdown since 2013?

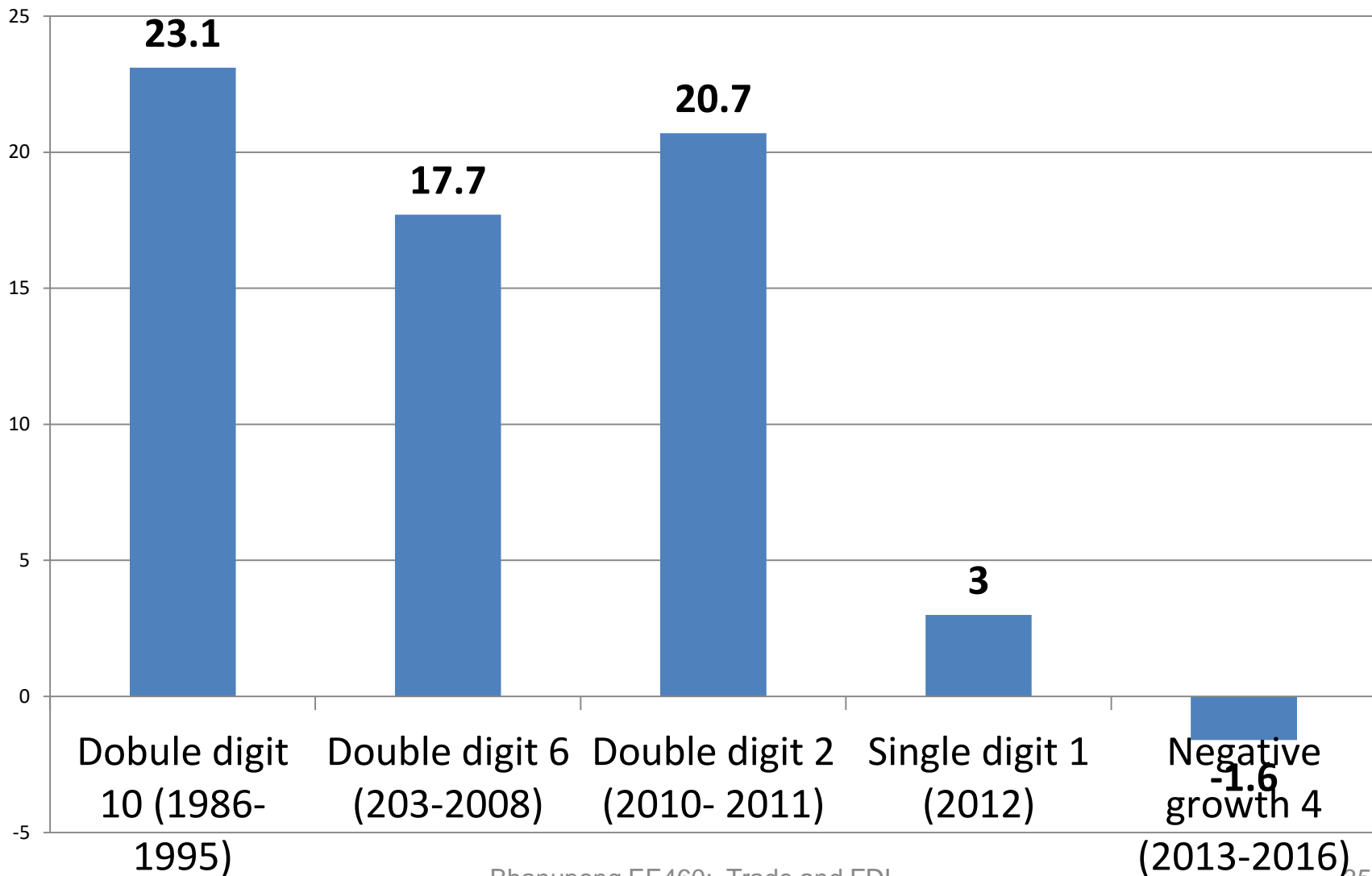


Thailand's Exports Cycles: the trough in 2016

(% change)

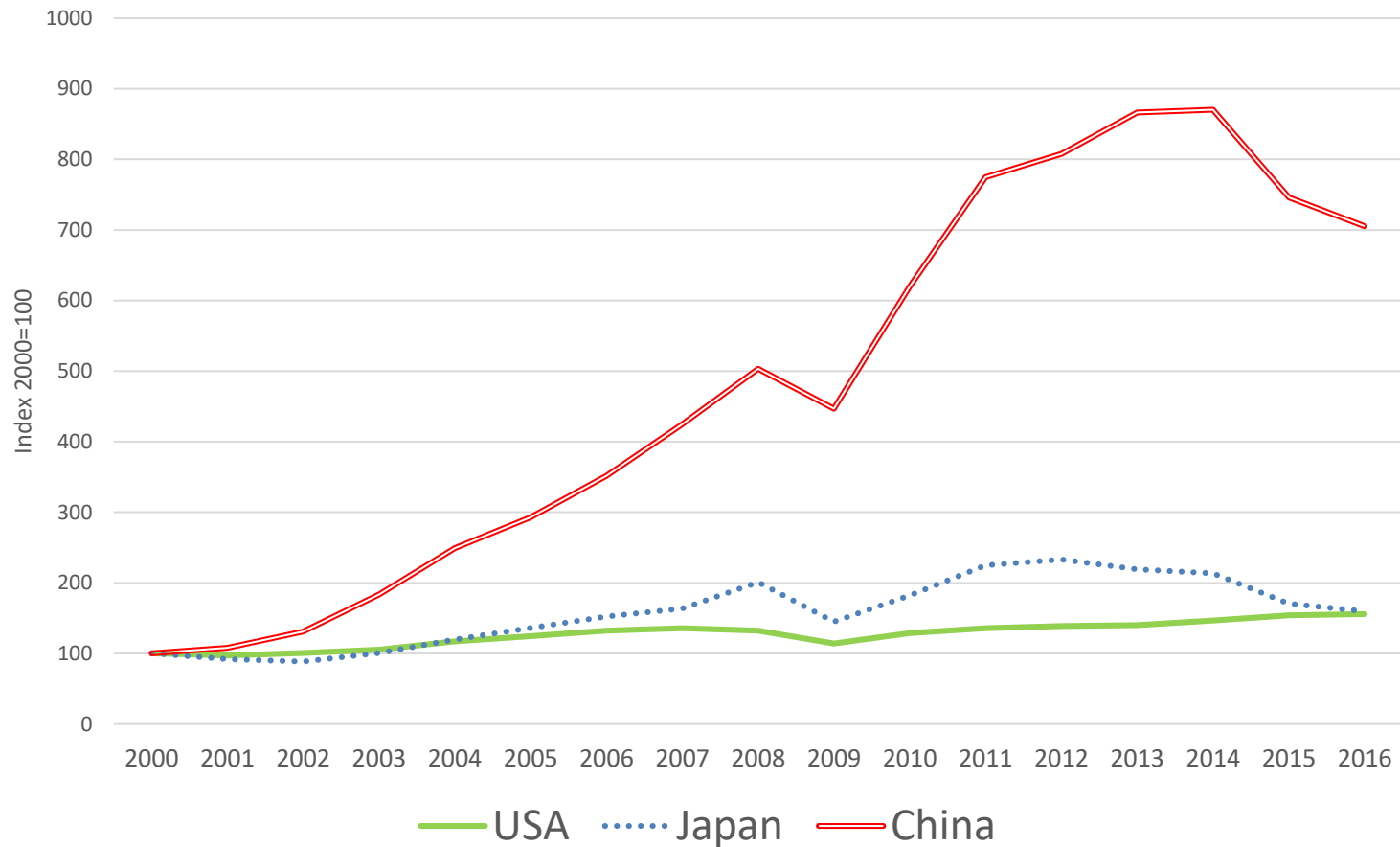


Thailand's Export Growth (period average) and Number of years in each period From double digit to negative growth rates

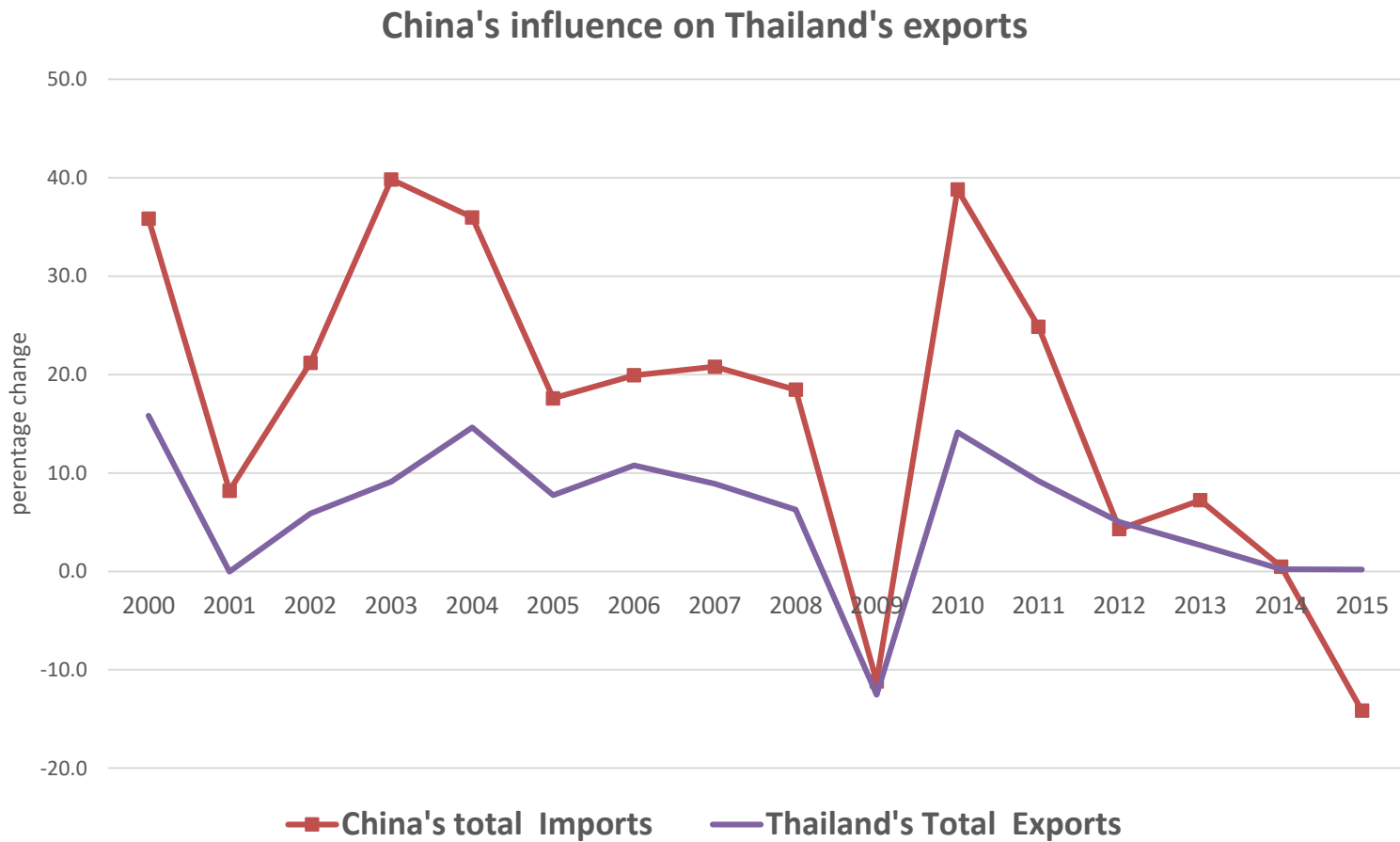


China's Business Cycle

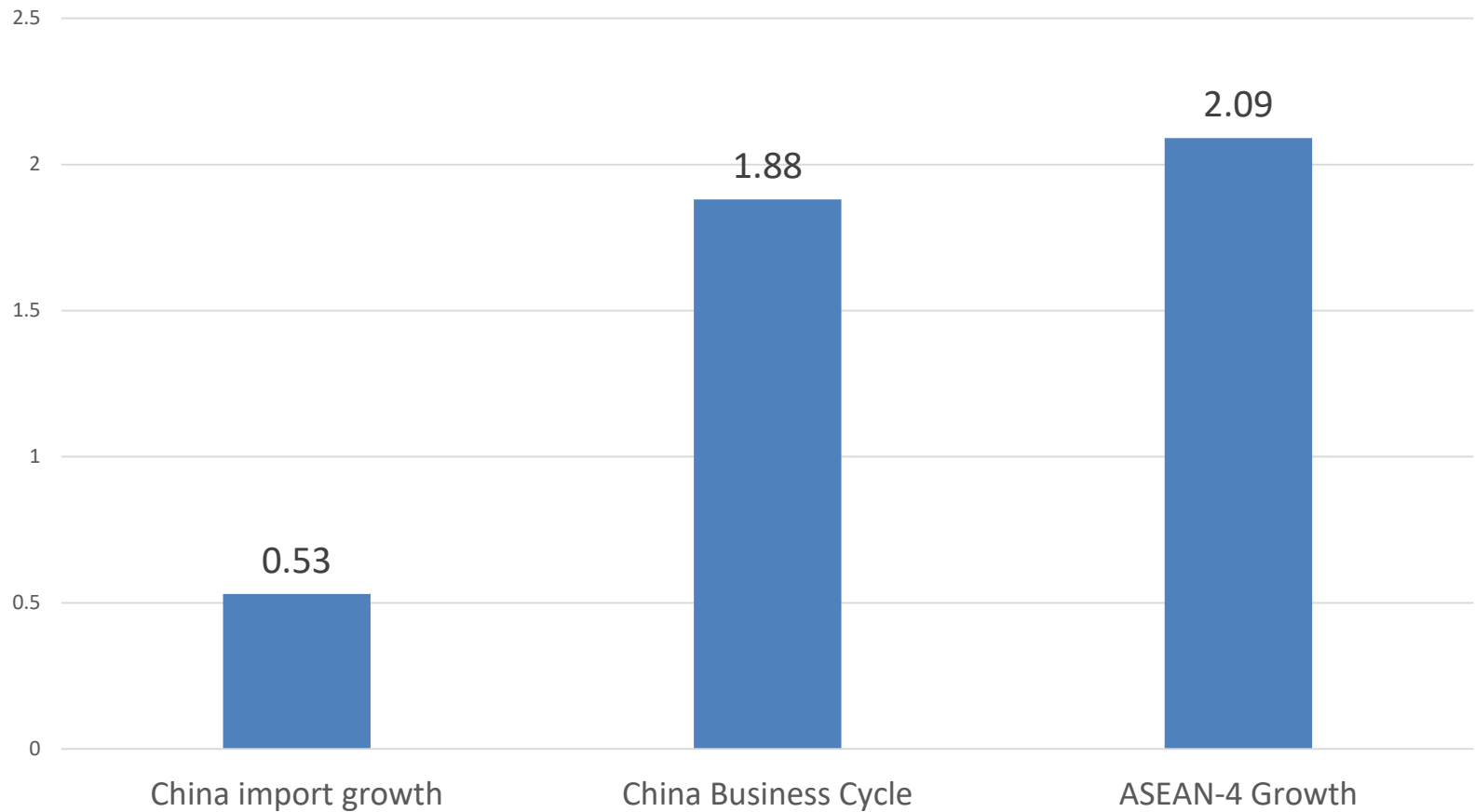
Real Values of Total Imports from China, Japan, and USA



China Factor



Impacts on Thailand's export growth
FMOLS Estimated Coefficients
Annual data: 2003-2016



5. FDI and Manufactured Exports

5.1 Life cycle of manufactured goods

5.2 FDI in ASEAN countries

5.3 Costs and Benefits of FDI

5.4 Theories of FDI

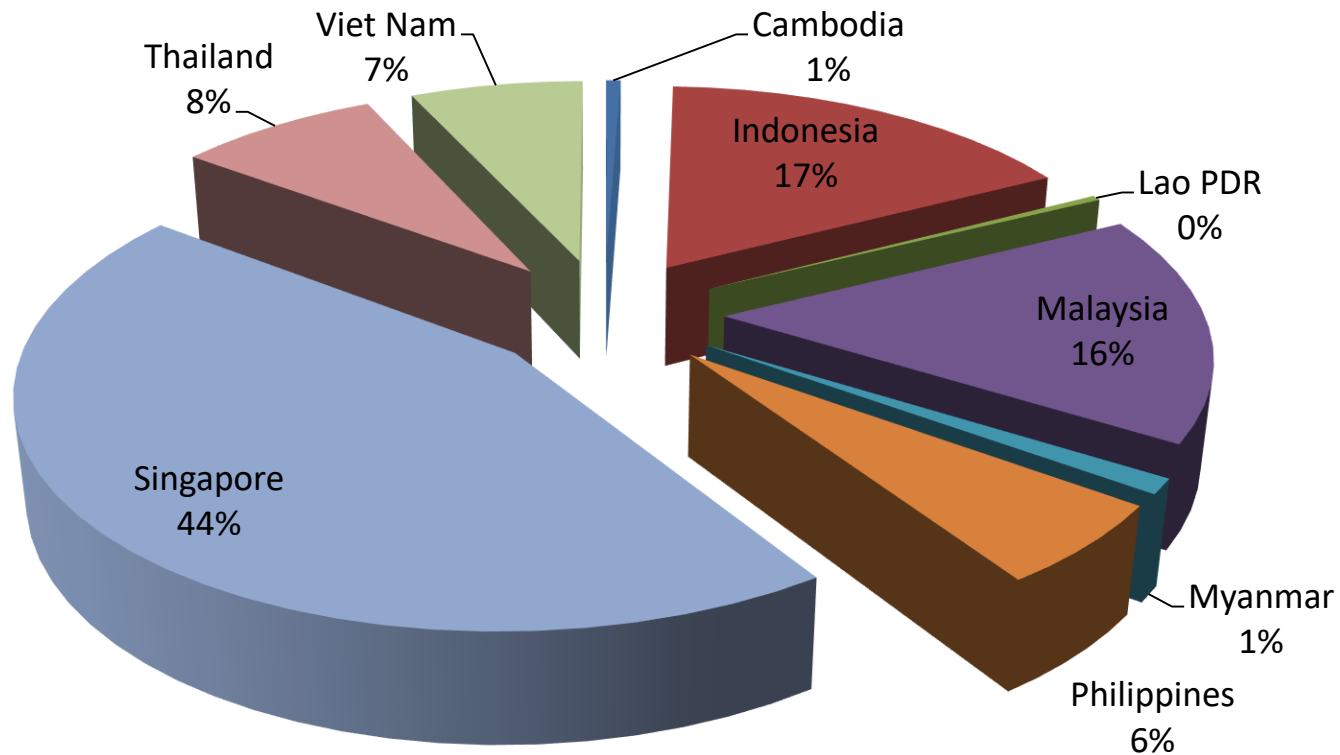
5.1 Life cycle of manufactured goods

- In the early phase, when the product is new, comparative advantage derives from **technology gaps**.
- In the middle phase, when imitators exist, **product differentiation**, accompanied by economies of scale, become principal determinants of comparative advantage.
- In the late phase, the product loses differentiation, **factor endowments and economies of scale** emerge as the dominant influences of comparative advantage.
- MNCs need to innovate and come up with unique products (Ipod, Ipad, Iphone)

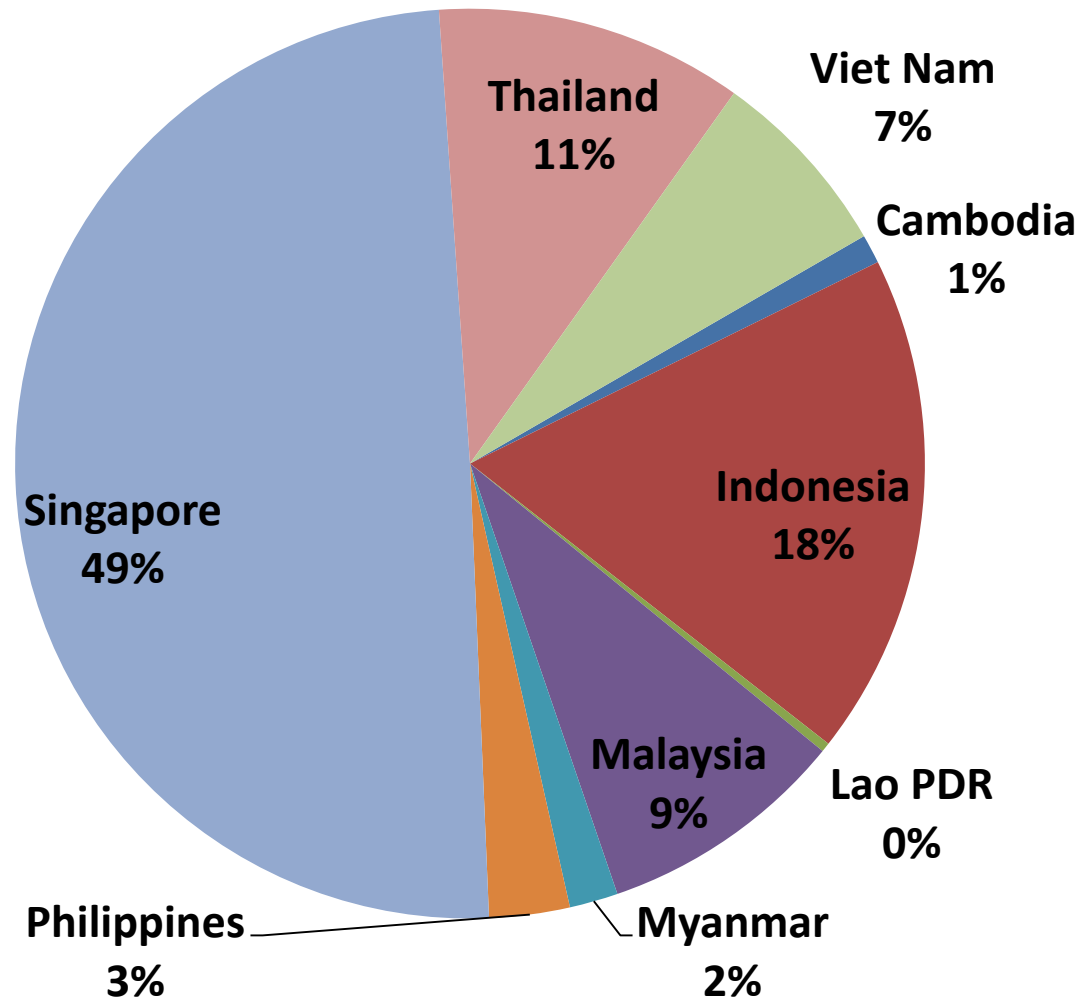
MNCs and market power

- Technology gaps, economies of scale, and product differentiation give to individual firms some degree of market power.
- Trade in newly differentiated manufactured products reflects the marketing, production, and investment behaviors of Multi National Corporations (MNCs).

5.2 Shares of FDI net inflows to ASEAN in 1995



Inflows of Net FDI in ASEAN: 2013
% share of ASEAN inflows



5.3 Benefits and costs of FDI Inflows

- Infrastructure and technology transfer
- Increased productive efficiency due to competition from multinational subsidiaries.
- Improvement in quality of the factors of production
- Inflow in investment funds (benefits to the balance of payments, in particular to countries experience chronic current account deficit).

More FDI benefits

- Faster growth of output and employment
- Consumer benefits
- Increase in exports
- Increase in savings
- Increase investment (crowding- in effect vs. crowding-out effect on local investment)
- Reduce vulnerability to currency crisis (FDI is a long –term capital flows)

Possible costs from FDI

- Negative effects on the balance of payments (imported goods from home countries, repatriation of profit).
- Discourage development of technical know-how (no product engineering process)
- Detriment to growth of domestic producers (too weak and too efficient to compete with MNCs)
- **Transfer pricing** can lead to loss of host governments' revenue.

Social costs to host countries

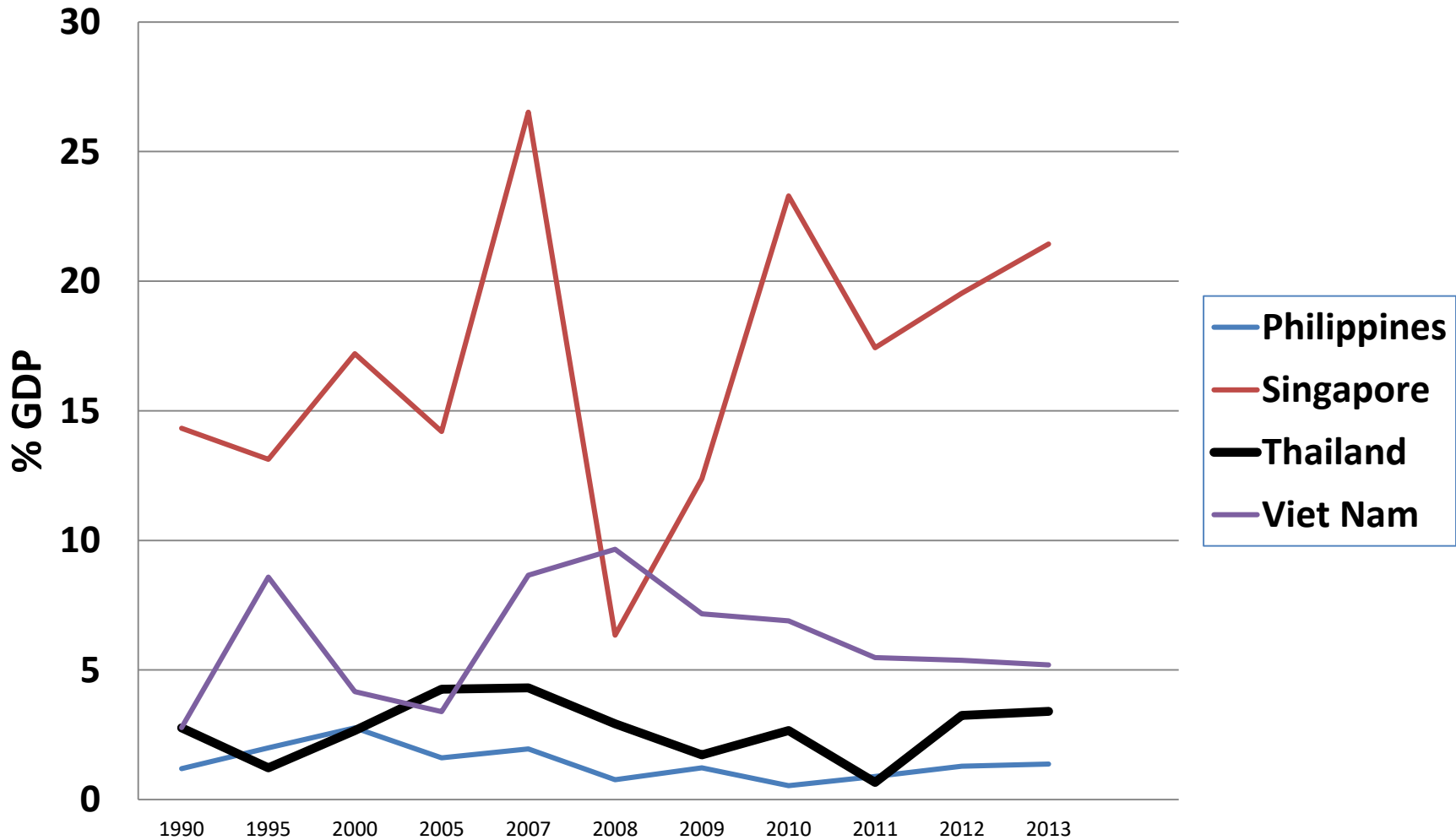
- Environment and natural resource costs
- Damages to local culture and traditional exports
- Politico-Strategic Interests
- Facilitate hegemony by dominant Japanese and Western cultures.
- Country sovereignty is at stake.
- But some CLMV countries do not care much.

Newly Industrializing Countries (NICs) with biggest FDI inflows (USD billion)

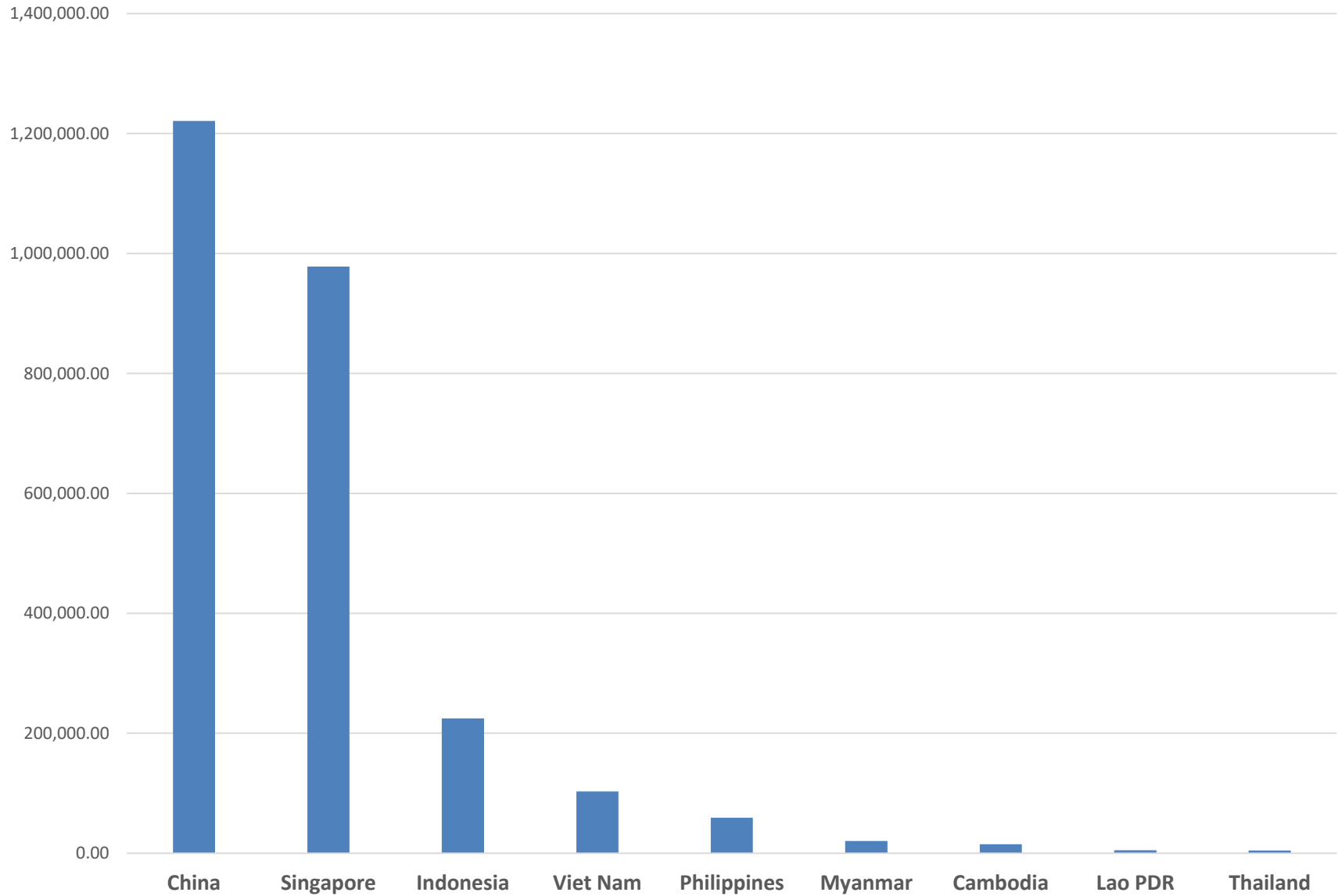
	1992-97 average	2004	%GDP stocks, end of 2004
China	32.8	60.6	14.0
HK	7.8	34.0	277.6
Brazil	6.6	18.2	25.2
Mexico	9.6	16.6	27.0
Singapore	8.3	16.1	150.2
S. Korea	1.3	7.7	10.7

FDI Net Inflows relative to GDP (1990-2013)

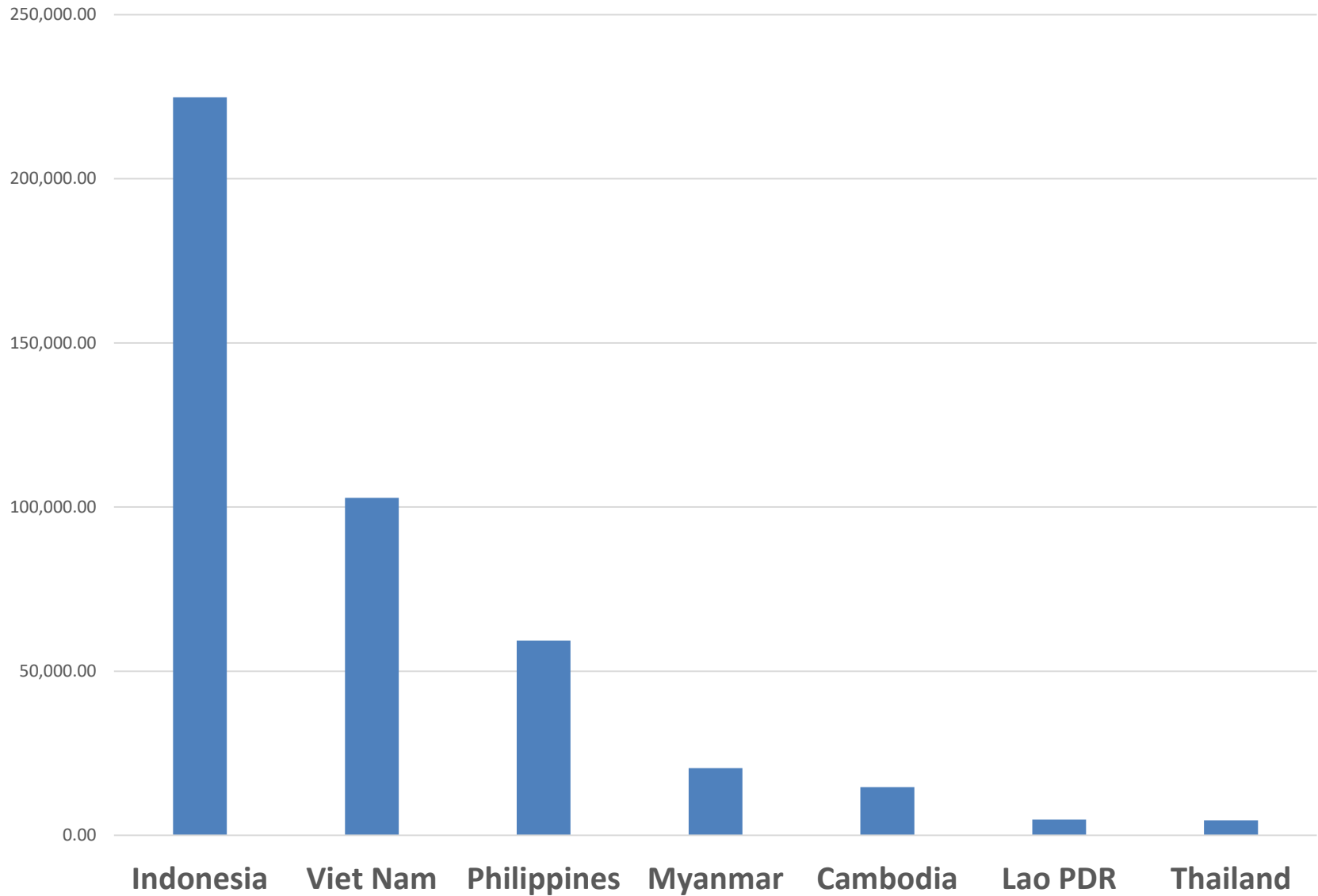
The larger, the better



Inward FDI stock in secondary sector: 2015

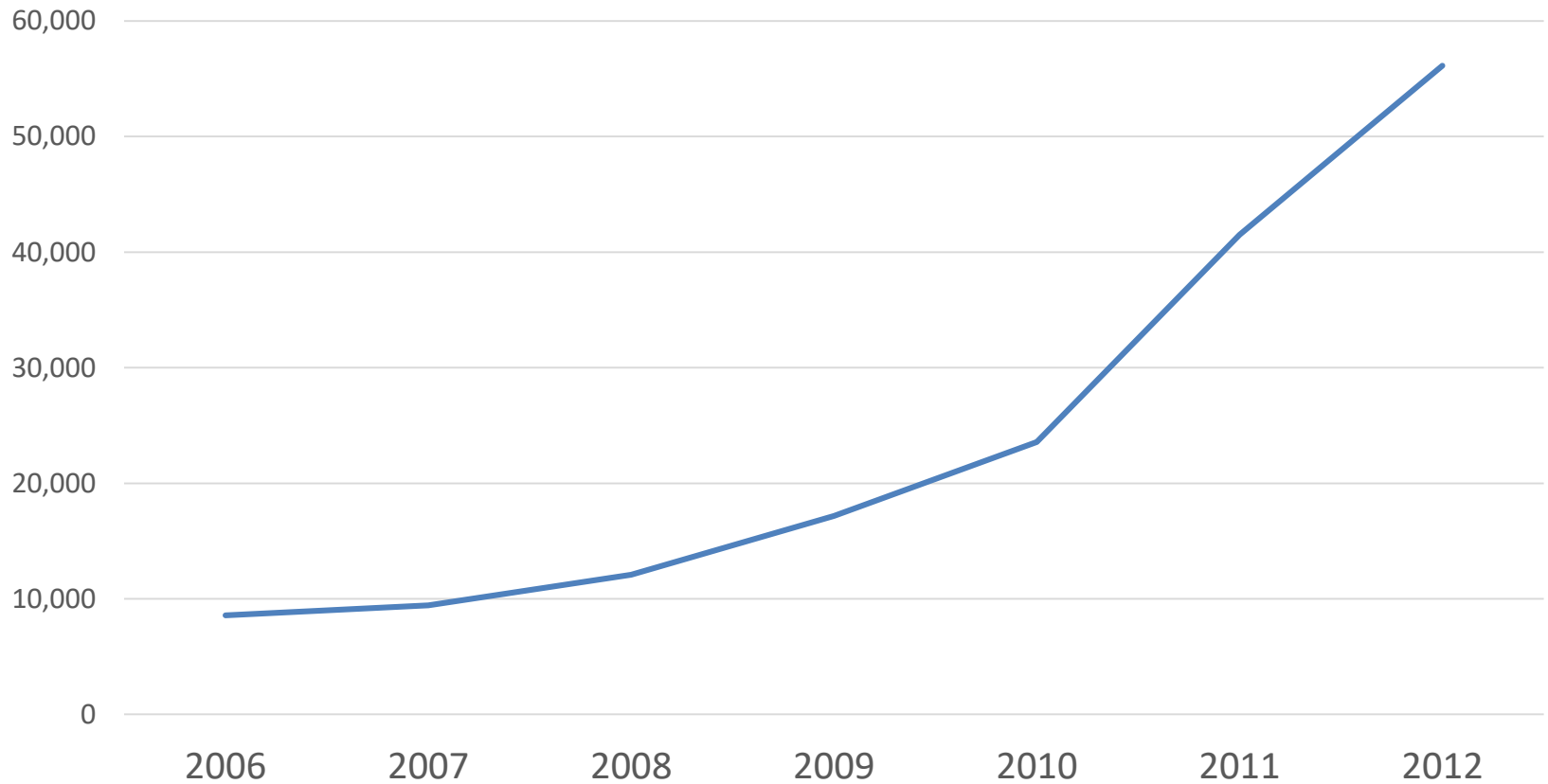


Inward stock of FDI in secondary sector: 2015

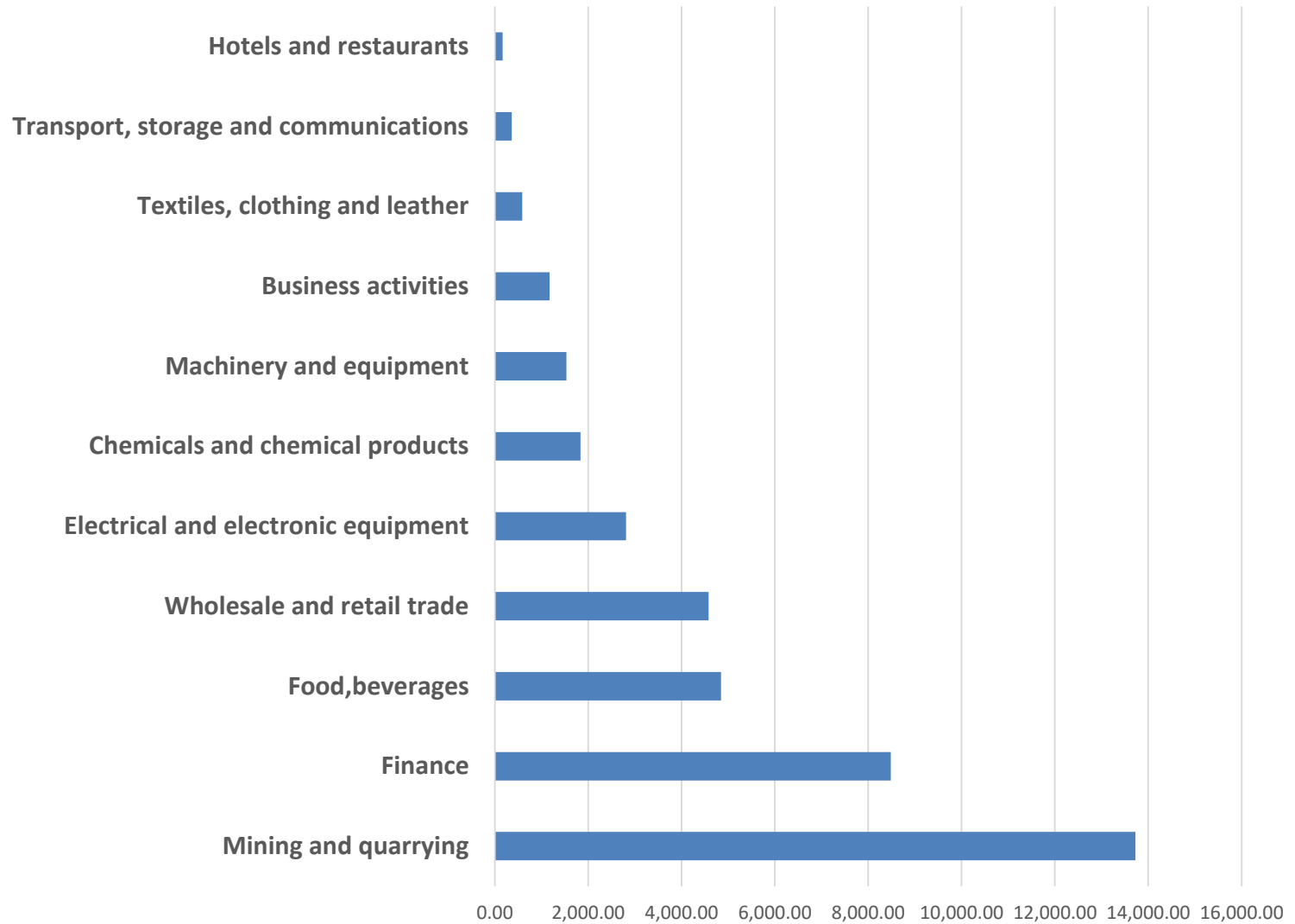


Thailand's Outward Investment Stock

Million USD
Source: ITC



Outward Investment Stock in 2012 (m\$)



5.4 Theories of FDI

- International production and the role of MNCs
- Eclectic theory of FDI
- Horizontal and vertical integration

John Dunning (1981) *International production and the Multinational Enterprises*

- FDI implies that **location-specific** advantages favor a foreign host country (abundant resources).
- **Ownership-specific** advantages favor the investing firm (knowledge assets) (McDonald and 7Eleven)
- International production is attributable not only to firms' monopolistic advantage and its ability to internalize that advantage but also to the **presence of foreign country** in which production brings unique benefit to the firms . (Apple in Ireland, Samsung in Vietnam)

Eclectic Theory of FDI

- The eclectic theory (Dunning, 1981) draws on the theories of comparative advantage and location and also on the theories of *monopolistic advantage* and *internalization*.
- MNC would invest only when it is most profitable for an MNC to internalize its monopolistic advantage in a foreign country
- Otherwise it exploits the country market through export or licensing.

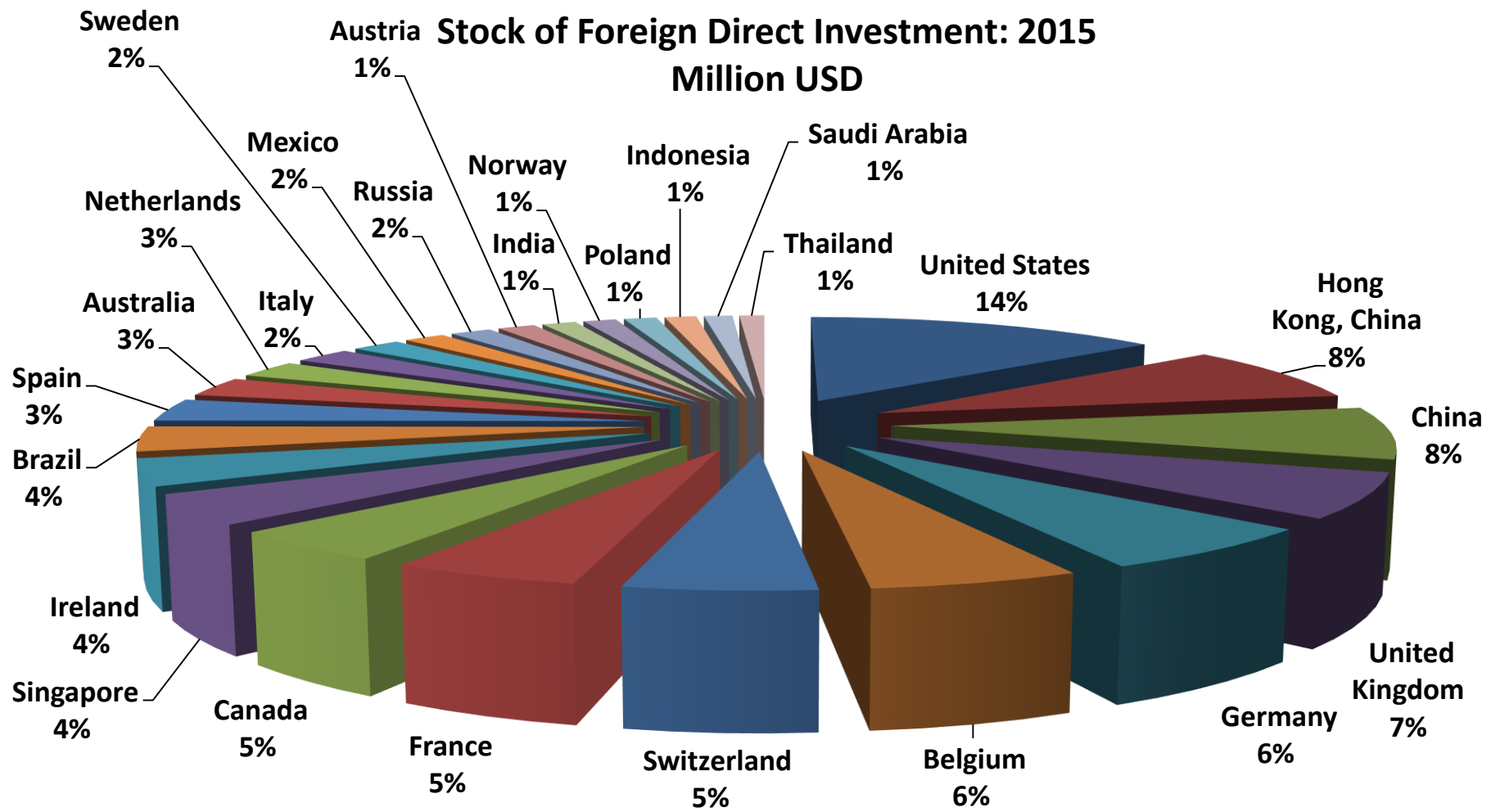
Monopolistic and Oligopolistic Markets

- MNCs have some unique **production knowledge** or managerial skill that could easily and profitably be utilized abroad and over which the corporation wants to remain control.
- **Horizontal integration:** production of differentiated products that are also produced at home
- **Vertical intergration:** to obtain control of needed raw-materials by ensuring uninterrupted supply at the lowest cost

Determinants of FDI

- Ownership advantages arise from economies of scale with respect to **intangible assets** such as skilled management and know-how by investing abroad.
- Locational advantages in host countries
- Product cycle (new technology produced and used in home country)
- Standardized technology permits shifting high cost plants abroad
- Low tax, low labor cost, and government policy

Stock of Foreign Direct Investment: 2015 Million USD

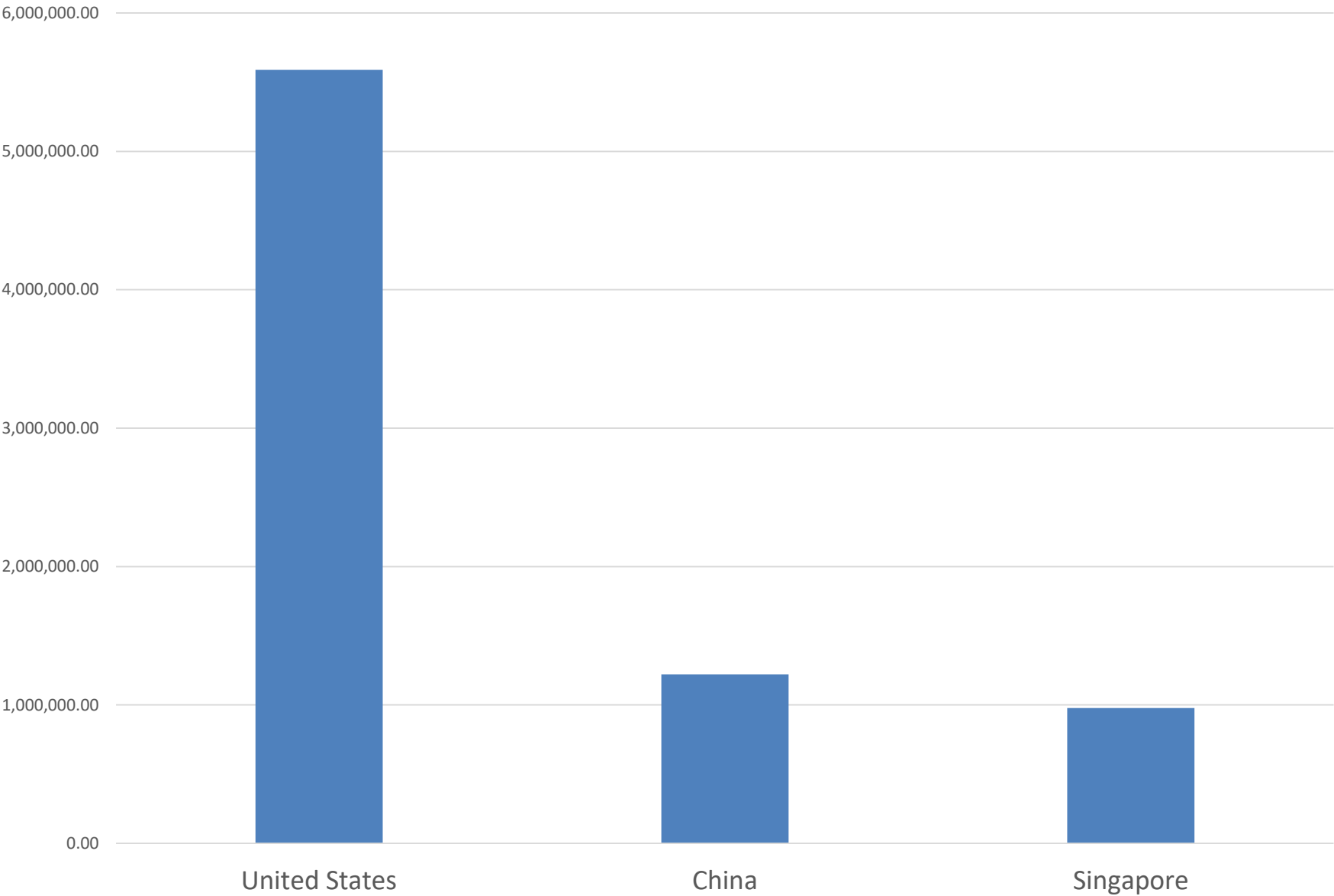


Source: CIA World Factbook

Factors affecting FDI

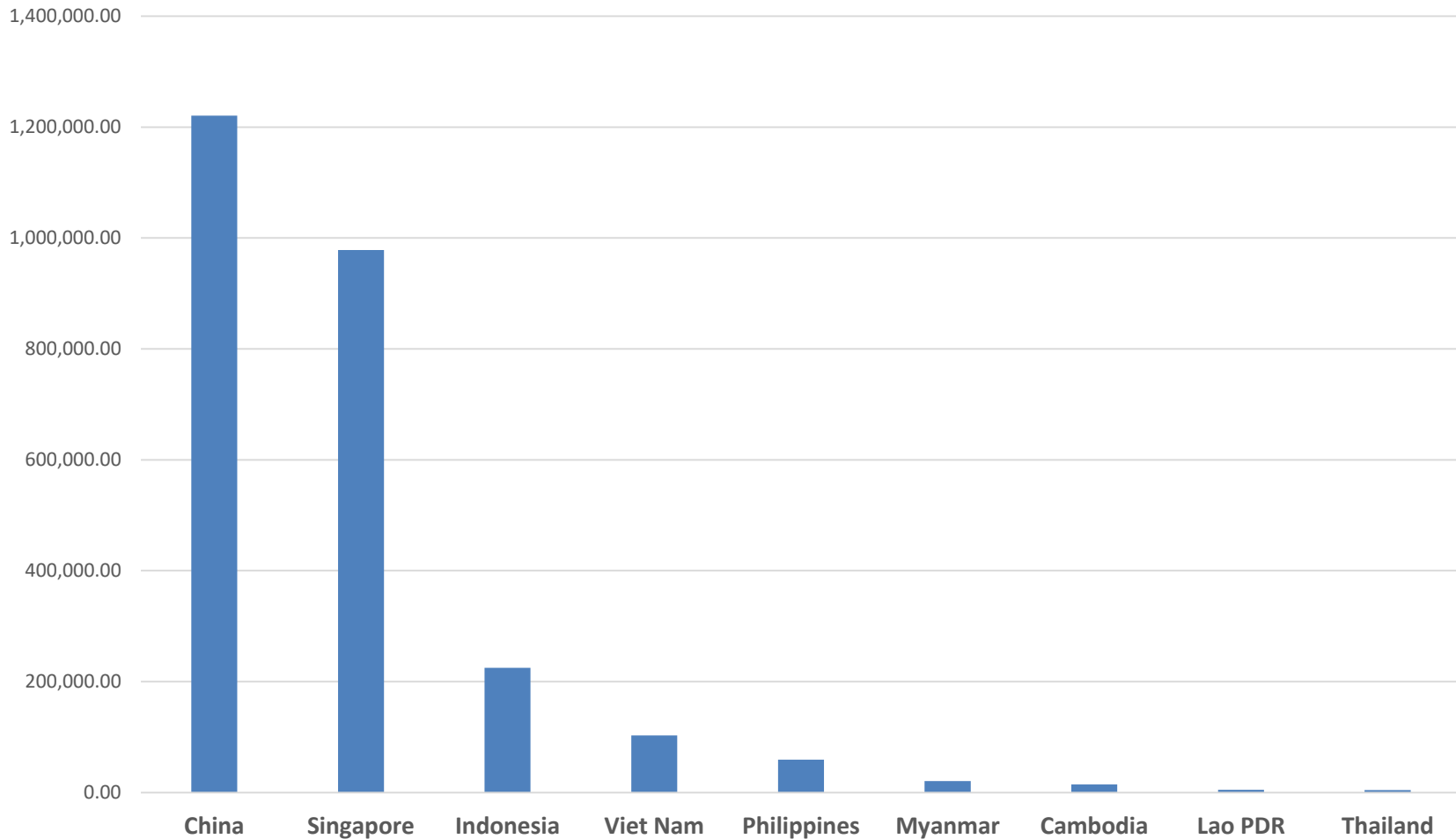
- Repatriation of profits
- Economy and market size
- *Risks and uncertainties*
- *Political stability*
- *Policy consistency*
- External debt discourages FDI
- Market potential and accessibility
- Product fragmentation
- *The ease of doing business*

Inward FDI stock in 2015



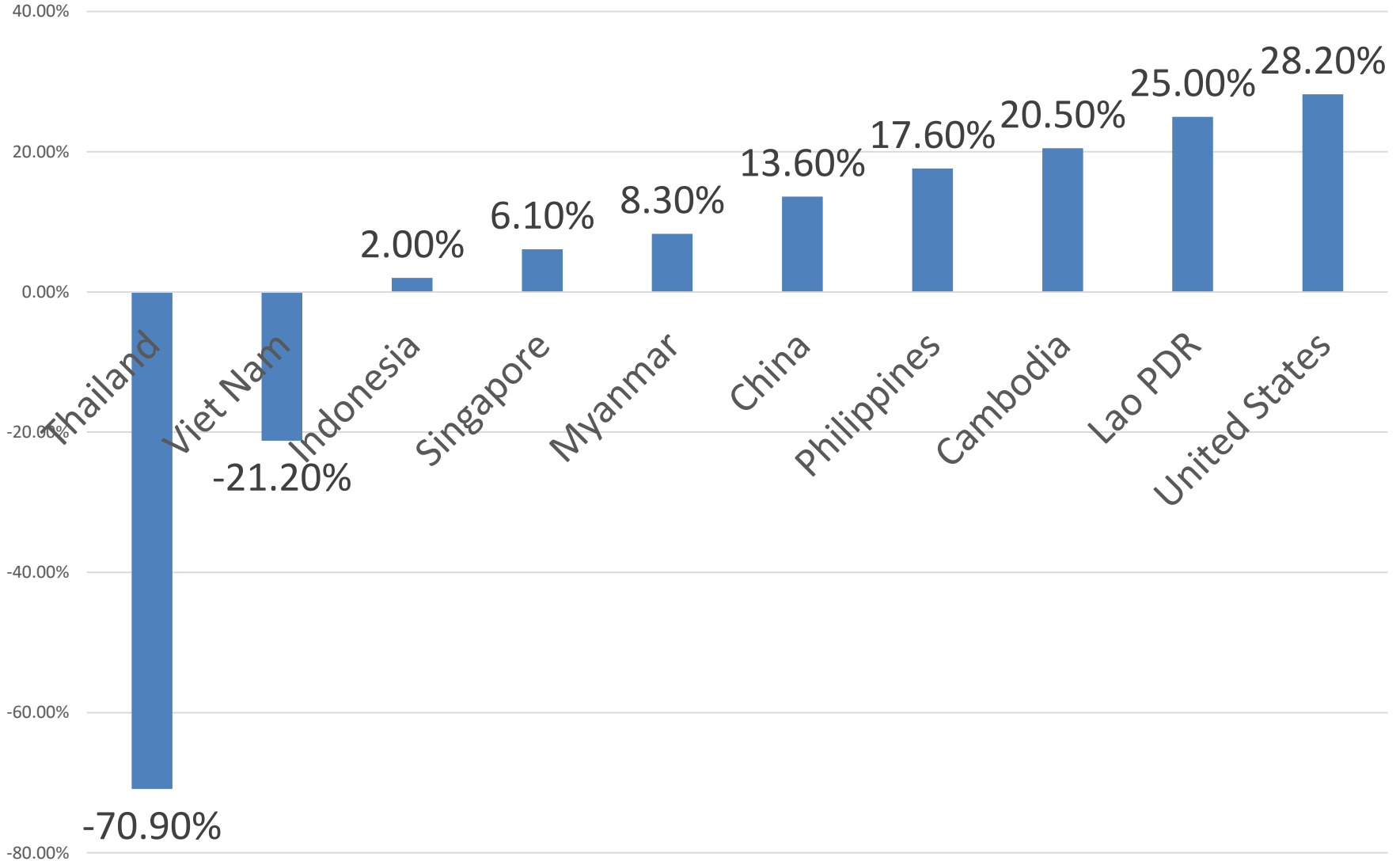
6. FDI and Thailand's Export Capability

Inward FDI stock in 2015



Inward FDI stock: 2015

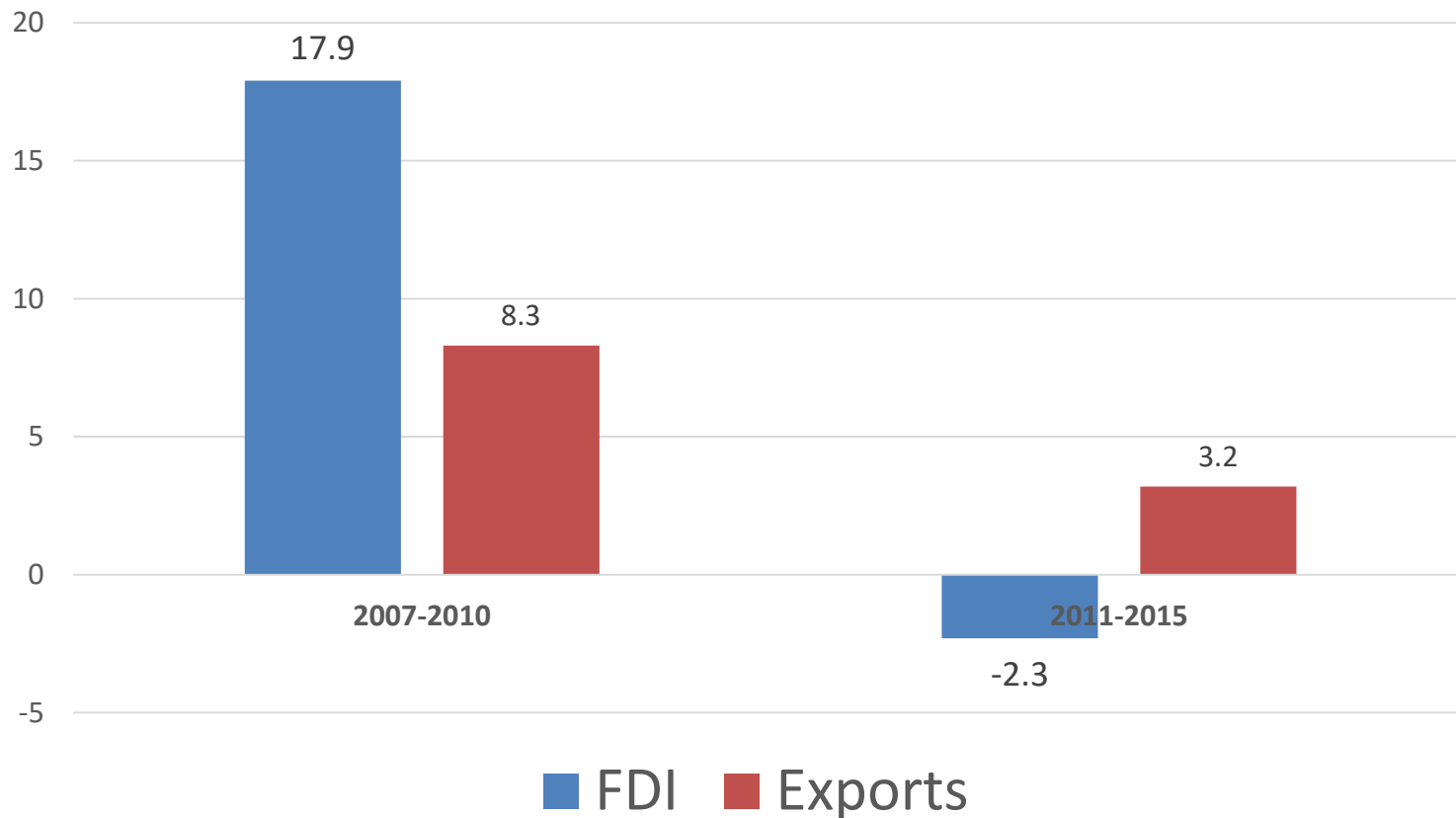
Percentage change per annum since 2012



Sectoral FDI inflows and Exports

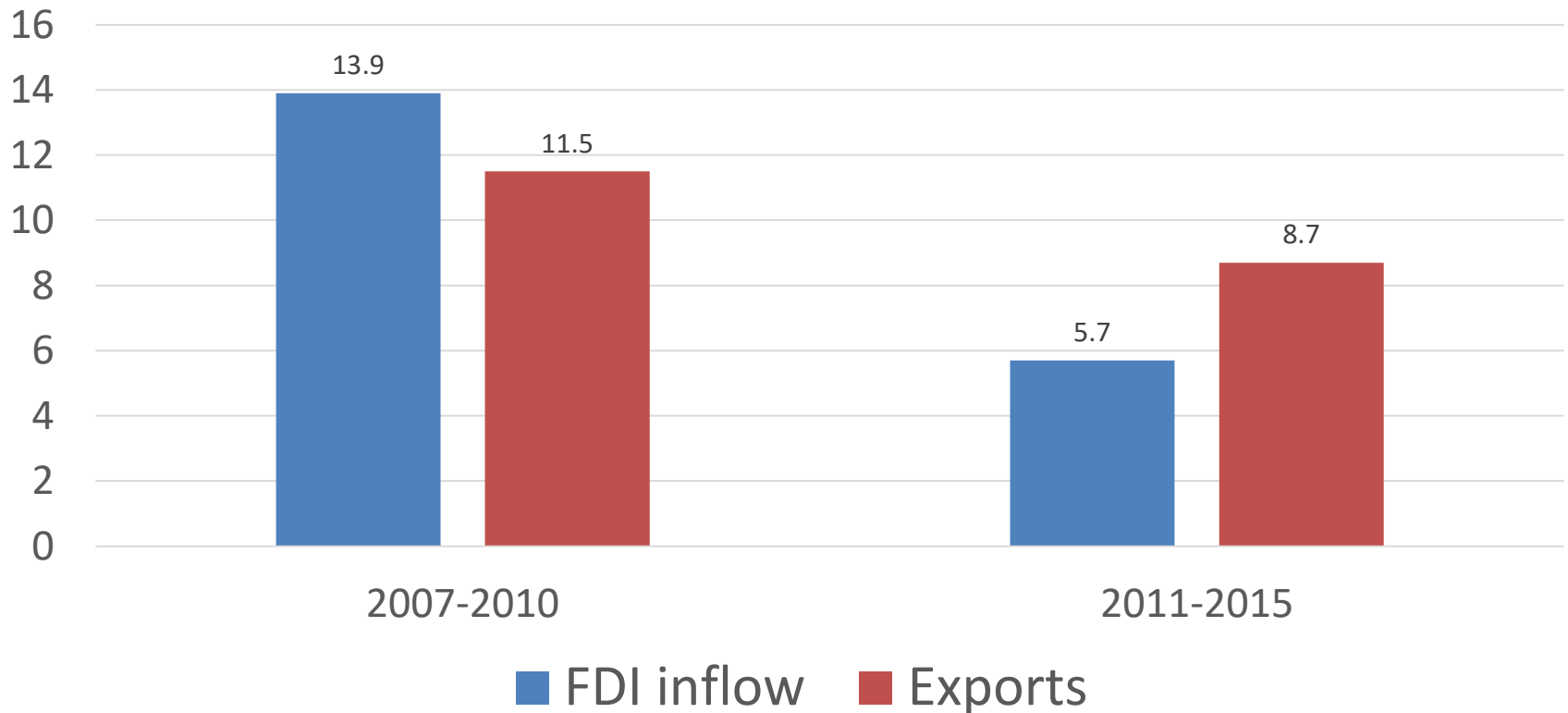
Percentage Change

Chemicals



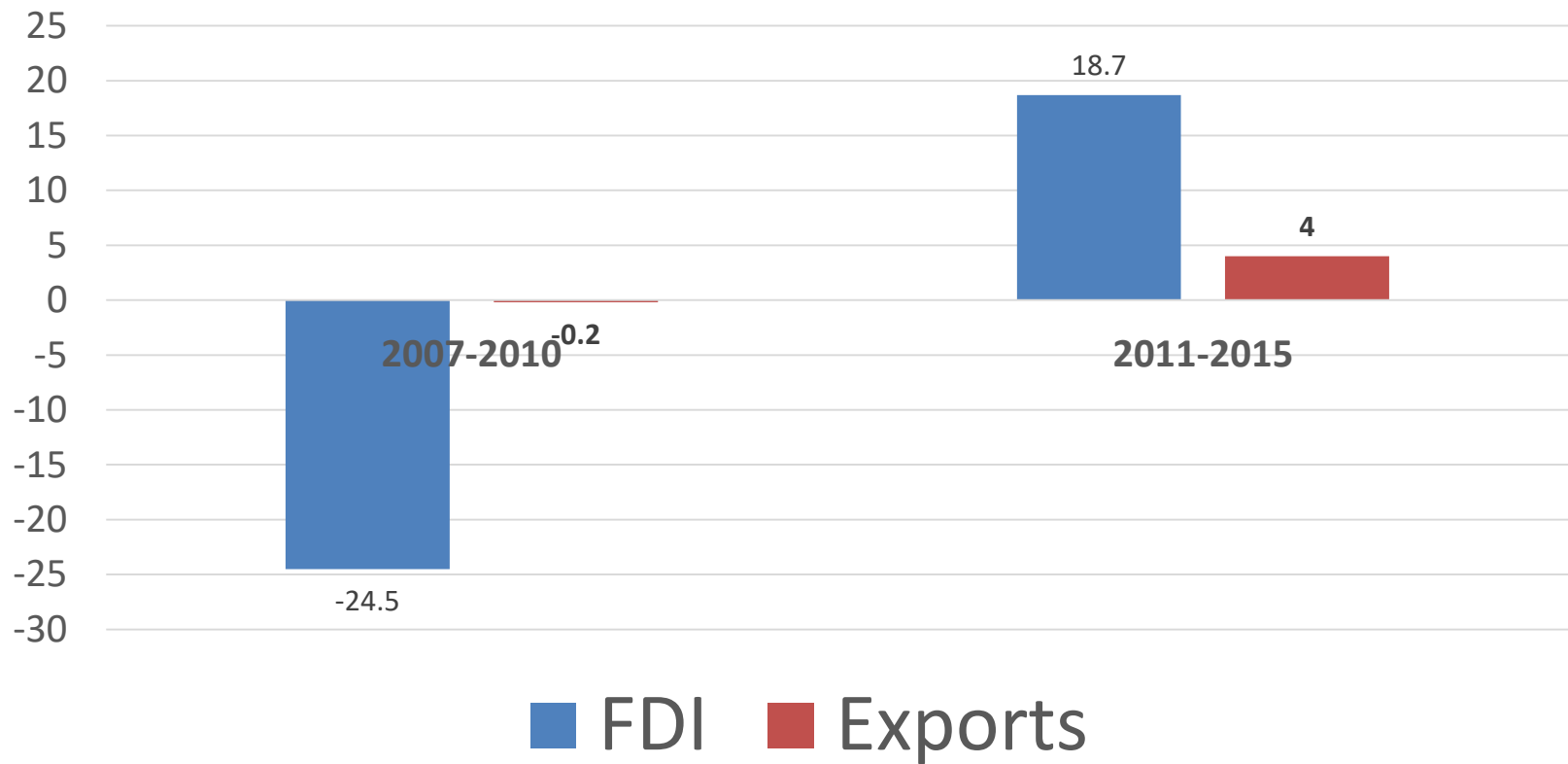
FDI Inflows and Export Growth (percentage Change)

Vehicles



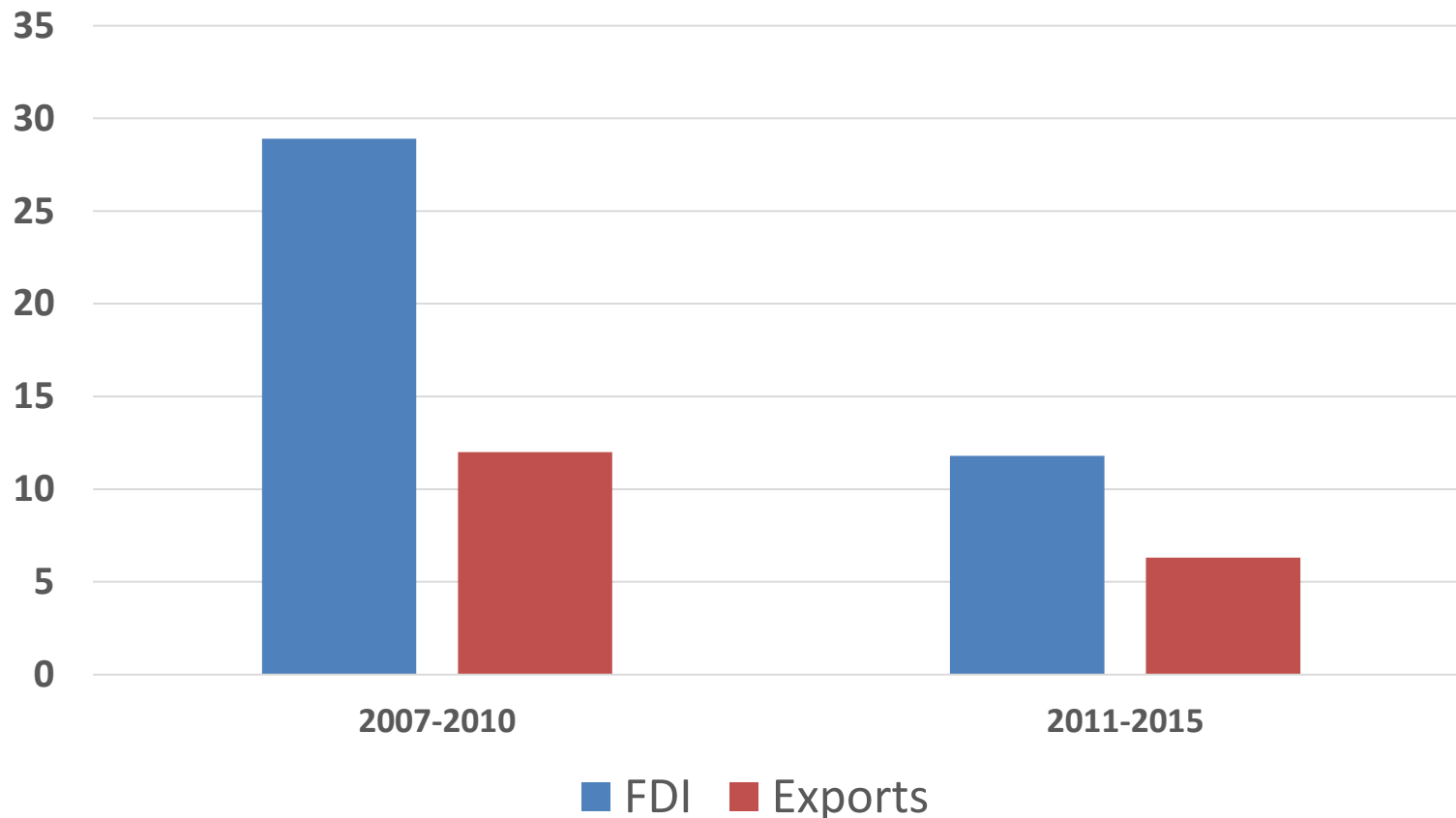
FDI Inflows and Export Growth (percentage change)

Electrical Appliances



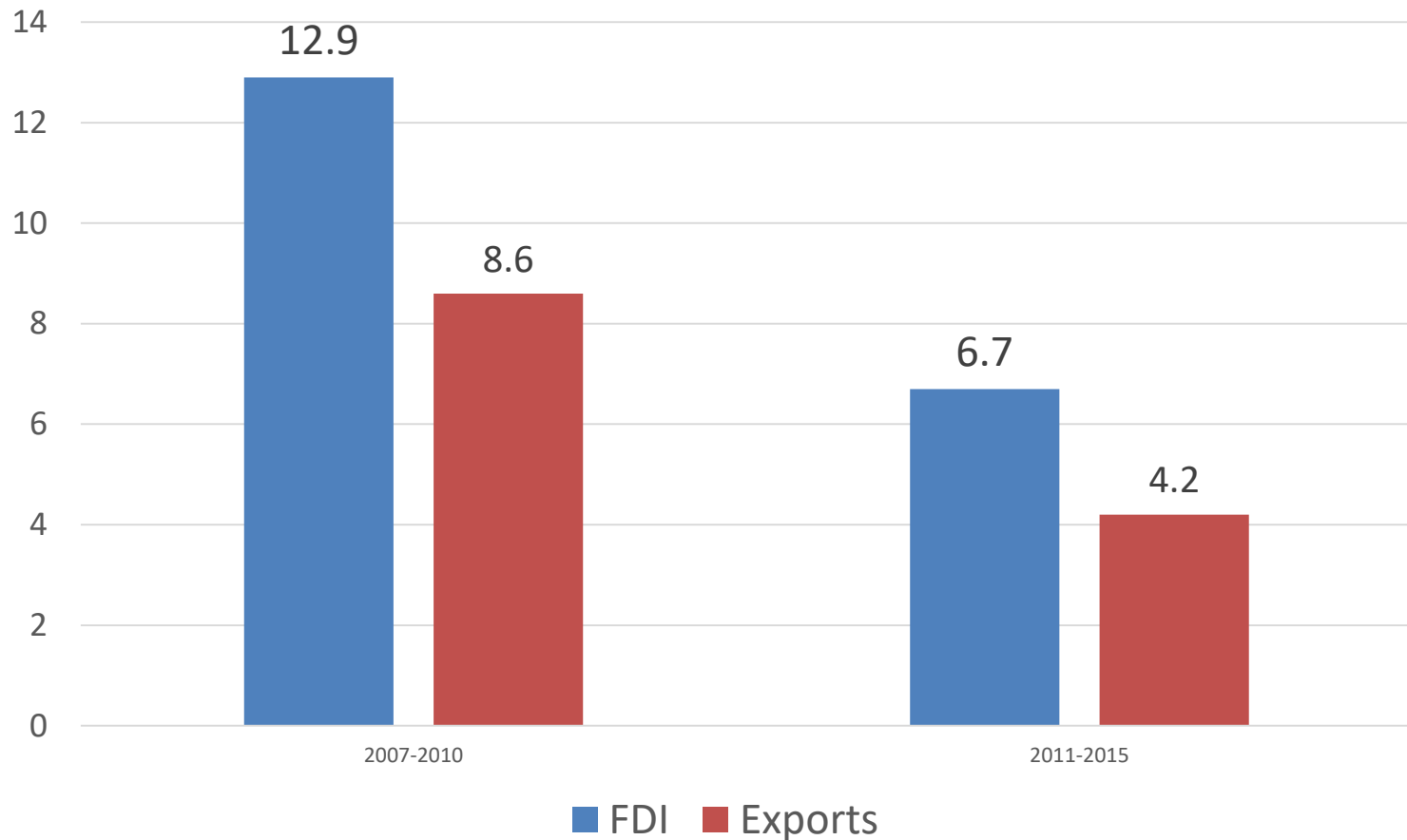
FDI inflows and export growth percentage change

Machinery Industry

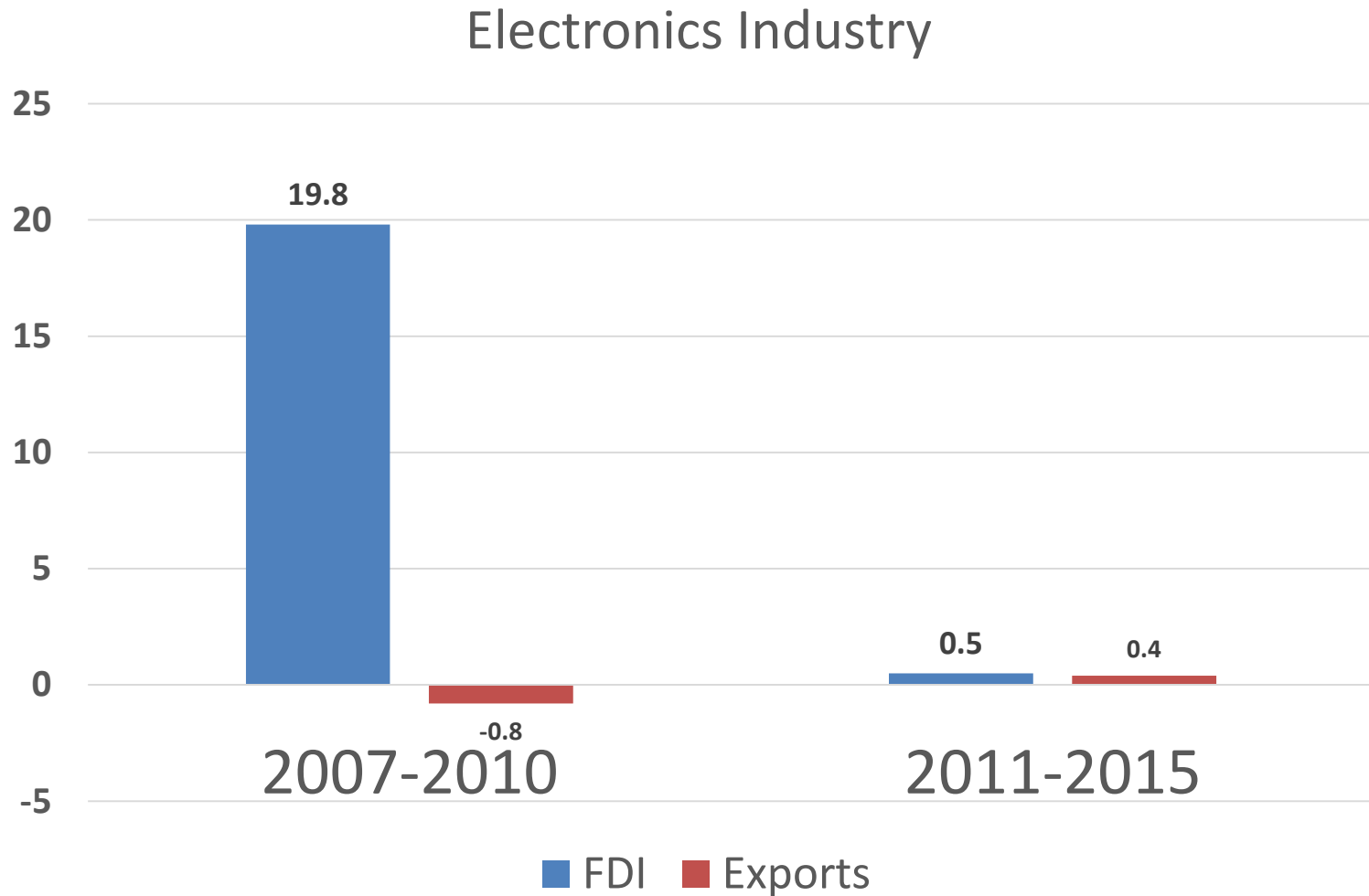


High FDI, High Exports

Processed Food Industry



Is this the beginning of the end?



Conclusions

- Since the first oil shock, Thailand's terms of trade has been declining.
- Primary commodities have become less important over time.
- Comparative advantage is changing, reflected by changing capital intensity.
- Demand for biofuels, if increasing, will keep cereal prices high – making staples beyond the reach of the poorest .

Conclusions

- Agriculture protection is on the rise for the sake of food security. Most advanced countries provide subsidies to farmers.
- FDI and trade are related through production fragmentation.
- The lack of FDI implies low rate of technological adoption and hence lower standard of living.
- The rise of production sharing is a major structural shift in the world trade from final product to network trade.

Conclusions

- Thailand benefitted from participation in network trade and the rapid recovery of exports in Japan and China in 2010 after the export collapse due to GFC in 2009..
- The severity of the impact of GFC on Southeast Asian economies depend on each country's export dependency, and trade intensity among them.

Review questions

- What would be the impacts of the war on corporate income tax cut?
- What will be the impact on Thailand's growth due to world economic recovery in 2017?
- Explain why network trade can lead to business cycle synchronization in Asia?