



Introduction and Early Trade Theories

EE451

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Outline



- Introduction
- Merchandise Trade and Trade in Services
- What is International Economics About?
- Mercantilism

Introduction

- The study of international economics has never been as important as it is now.
 - Nations are more closely linked through trade in goods and services, through flows of money, and through investment in each others' economies than ever before.
 - World export value has increased from \$2,035 bn. in 1980 to \$19,007 bn. in 2014 with an annual growth rate of 9.72% (from 2002-2014).
 - Recent events: BREXIT, Trumponomics, disruptive technology, COVID-19

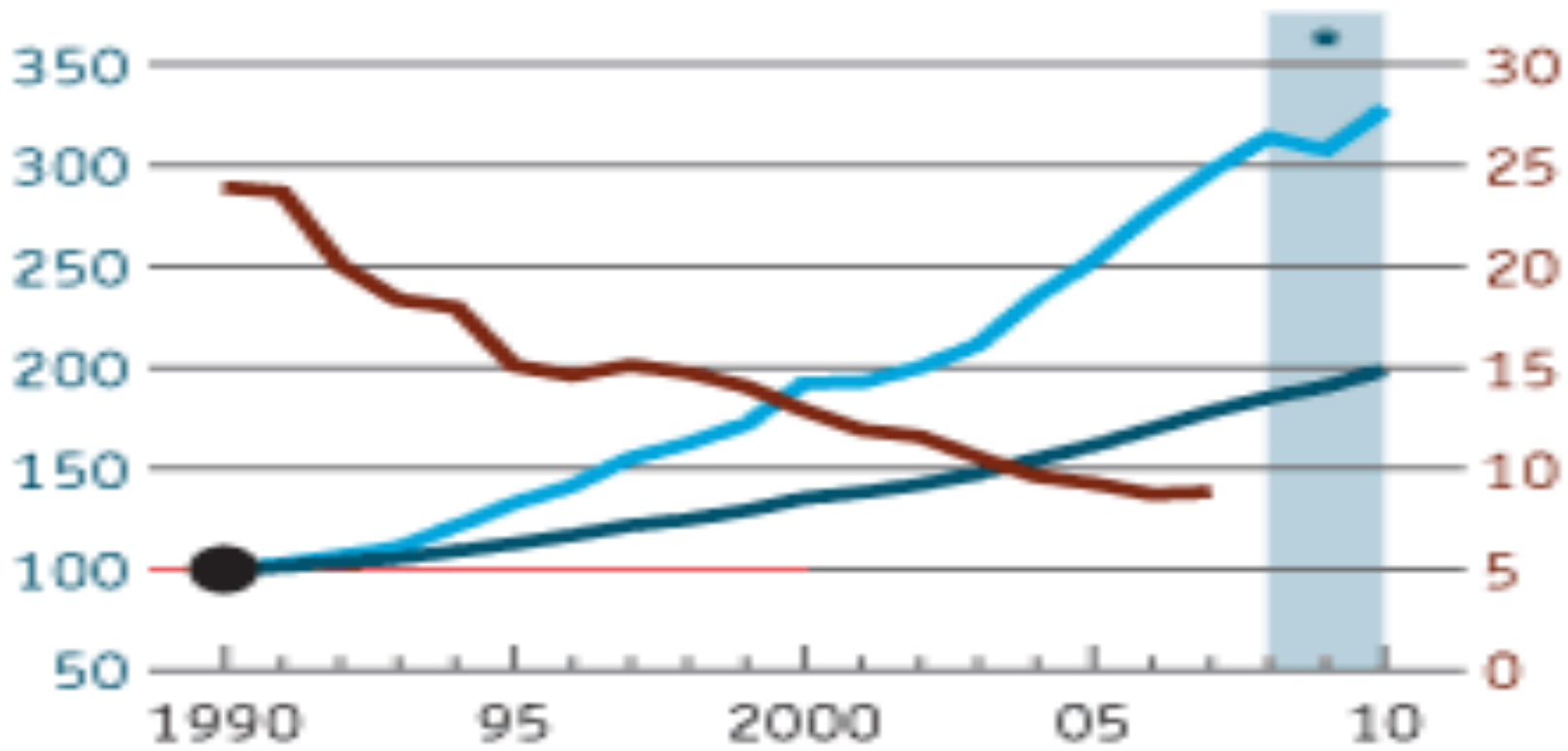
Average tariff rates vs. world trade volume

Golden years

Indices, 1990=100:

— world trade volume
— world GDP

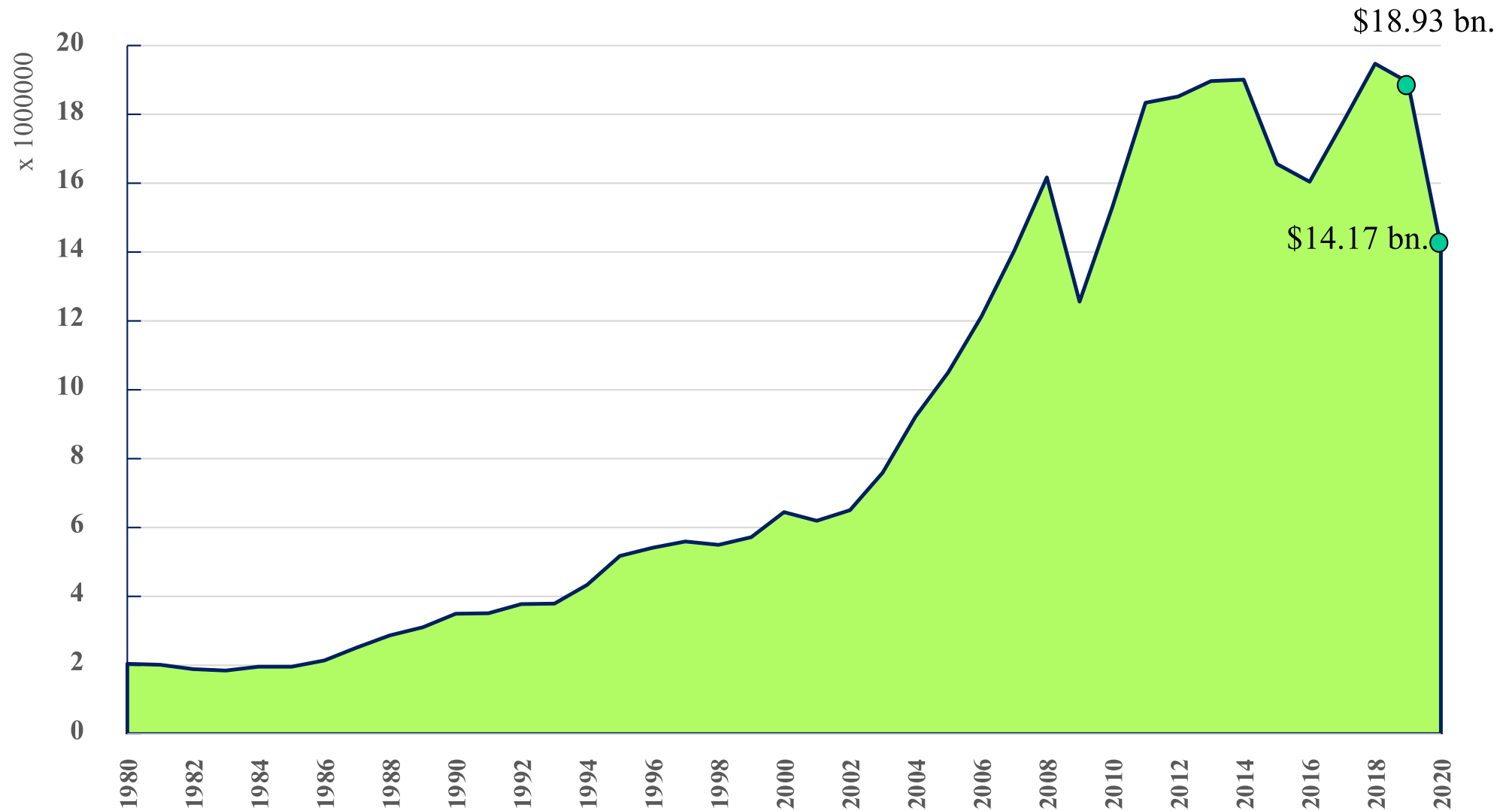
Average tariff applied, %



Sources: World Bank; IMF

*Forecast

World merchandise Export Value: 1980 – 2019 (US\$)

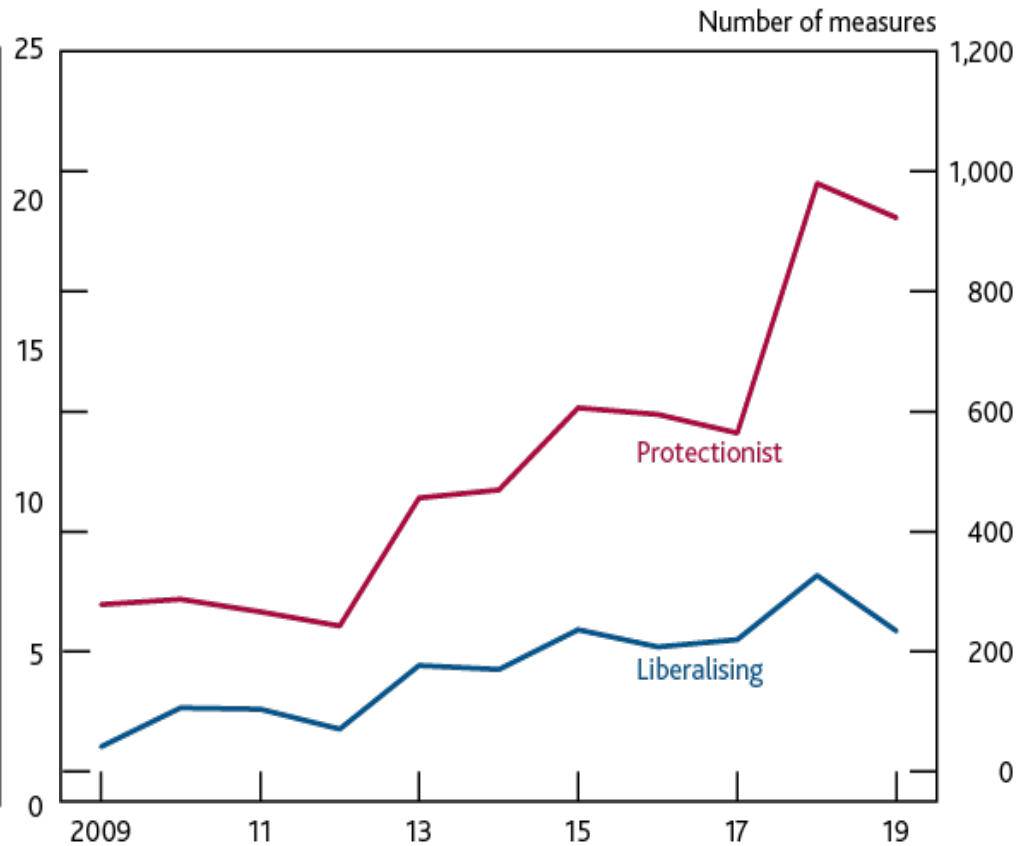
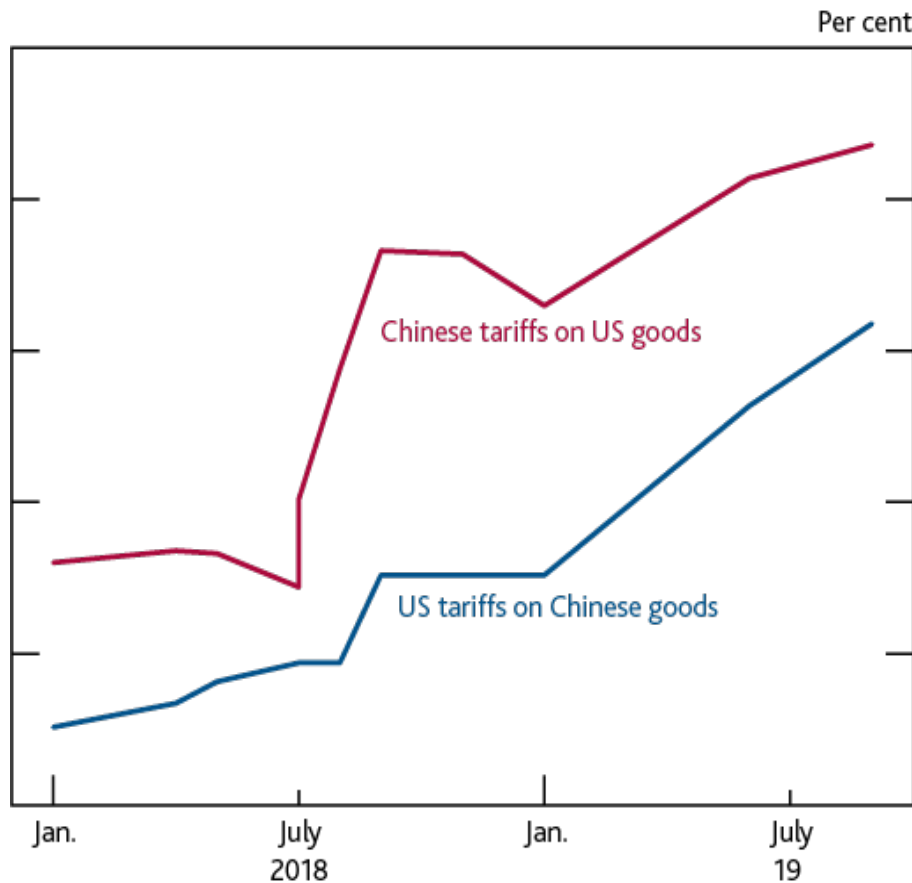


<https://data.wto.org/>

Protectionism is on the rise again!

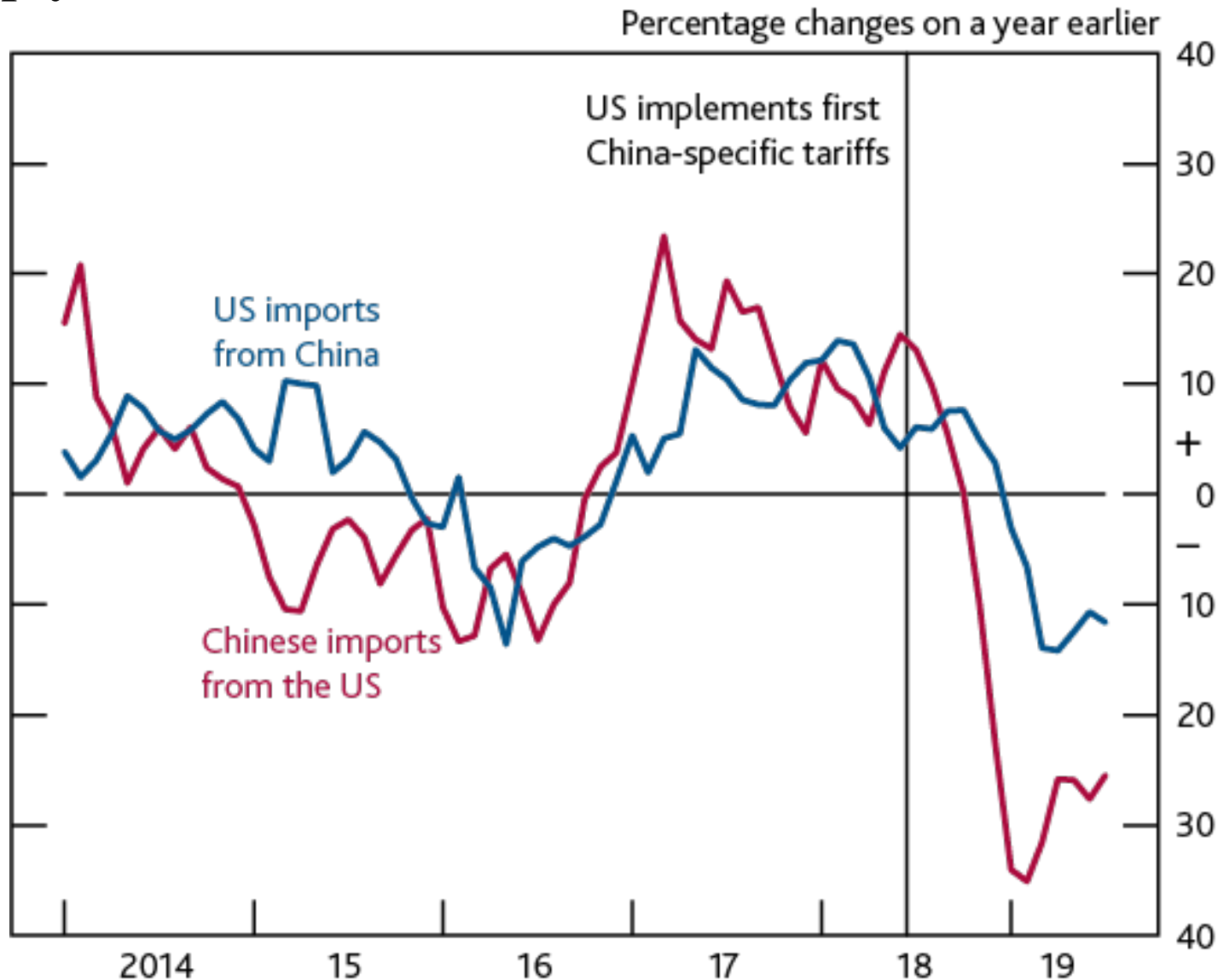
The average tariffs on bilateral trade between the US and China have increased since mid-2018

The number of protectionist trade measures introduced has increased significantly in 2018 and 2019



<https://www.bankofengland.co.uk/monetary-policy-report/2019/november-2019/in-focus-trade-protectionism-and-the-global-outlook>

Bilateral trade between the US and China has contracted sharply since tariffs were first introduced



<https://www.bankofengland.co.uk/monetary-policy-report/2019/november-2019/in-focus-trade-protectionism-and-the-global-outlook>

International trade: total world export and import is \$7,004 bn.

Table 1.5 Top 15 international trade (\$bn.), 1999

country	exports	%		country	Import	%
1 USA	956	13.7	1	USA	1,116	15.9
2 Germany	626	8.9	2	Germany	593	8.5
3 Japan	465	6.6	3	UK	396	5.7
4 France	382	5.5	4	Japan	380	5.4
5 UK	374	5.3	5	France	338	4.8
6 Italy	292	4.2	6	Italy	275	3.9
7 Canada	278	4.0	7	Canada	259	3.7
8 Netherland	249	3.6	8	Netherland	220	3.1
9 China	219	3.1	9	Hong Kong	203	2.9
10 Hong Kong	212	3.0	10	China	190	2.7
23 Thailand	71.4	1.1	26	Thailand	55.8	0.8

Leading exporters and importers in world merchandise trade, 2013

Billion Dollars



Rank	Exporters	Value	Share	Rank	Importers	Value	Share
1	China	2,209	11.7	1	United States	2,329	12.3
2	United States	1,580	8.4	2	China	1,950	10.3
3	Germany	1,453	7.7	3	Germany	1,189	6.3
4	Japan	715	3.8	4	Japan	833	4.4
5	Netherlands	672	3.6	5	France	681	3.6
6	France	580	3.1	6	United Kingdom	655	3.5
7	Korea, Republic	560	3.0	7	Hong Kong,	622	3.3
8	United Kingdom	542	2.9	8	Netherlands	590	3.1
9	Hong Kong,	536	2.8	9	Korea, Republic	516	2.7
10	Russian	523	2.8	10	Italy	477	2.5
25	Thailand	229	1.2	24	Thailand	251	1.3
	World	12,08	100		World	1,2413	100

Source: WTO, http://www.wto.org/english/res_e/statis_e/its2014_e/its07_world_trade_dev_e.htm

Map of World Trade



- European Trade
 - Trade within Europe is the largest, about 28% of world trade.
 - Many countries
 - Easy to ship between countries because import tariffs are low
 - European Union (EU) countries have zero tariffs on imports from each other.
 - EU has 25 members with two more joined in 2007.

Map of World Trade



- European and U.S. Trade
 - Europe and the U.S. together account for 35% of world trade flows.
 - Differences among these countries explain some of the trade between them.
 - Despite this, industrialized countries like the U.K. and U.S. have many similarities.

Map of World Trade



- Trade in the Americas
 - Trade between North, Central, and South America and the Caribbean totals 13% of all world trade.
 - Most of this is within the North American Free Trade Area which consists of Canada, the U.S. and Mexico.
 - Unlike the EU, it is unlikely that NAFTA will gain new countries any time soon.
 - Trade between the NAFTA countries and Central and South America is relatively small and the distances are large.

Map of World Trade



- Trade with Asia
 - All exports from Asia total 28% of all world trade.
 - Exports from China alone doubled from 2000 to 2005.
 - Many reasons why Asia trades so much
 - China's labor is cheap.
 - Japan can produce high quality goods efficiently.

Map of World Trade

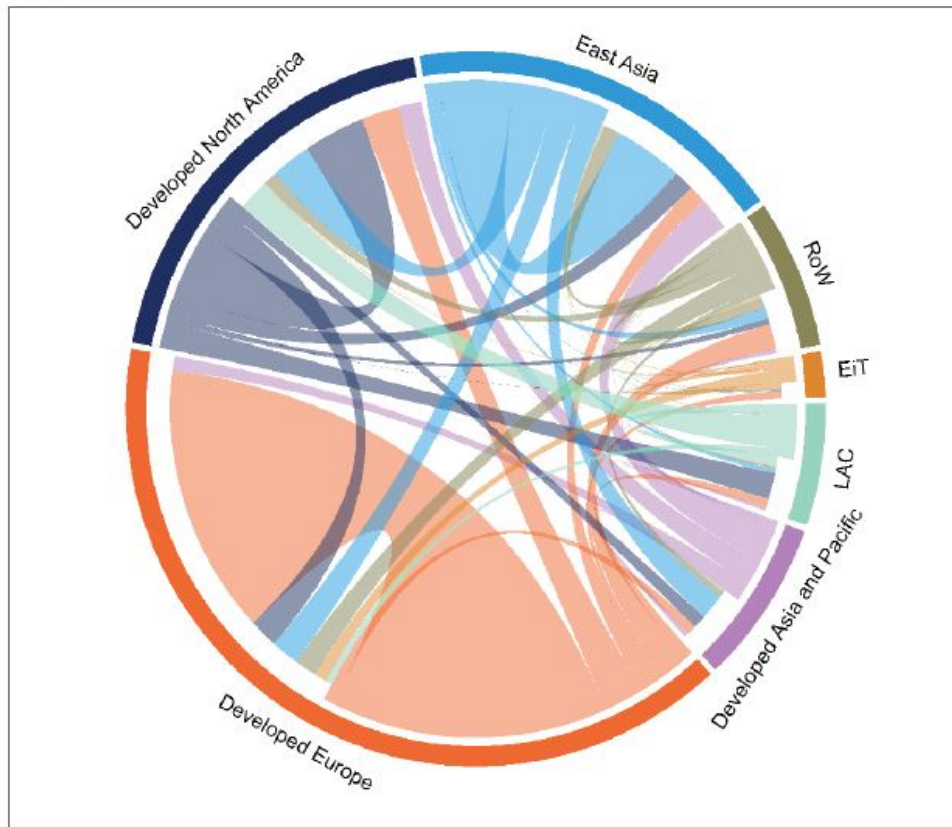


- Other Regions
 - Oil and natural gas are exported from the Middle East and Russia.
 - Exports from these two areas totaled another 10% of world trade.
 - Africa accounts for only 2.5% of world trade.
 - Very small given its size and population
 - Many believe getting Africa out of poverty will require better linkages with the world through trade.

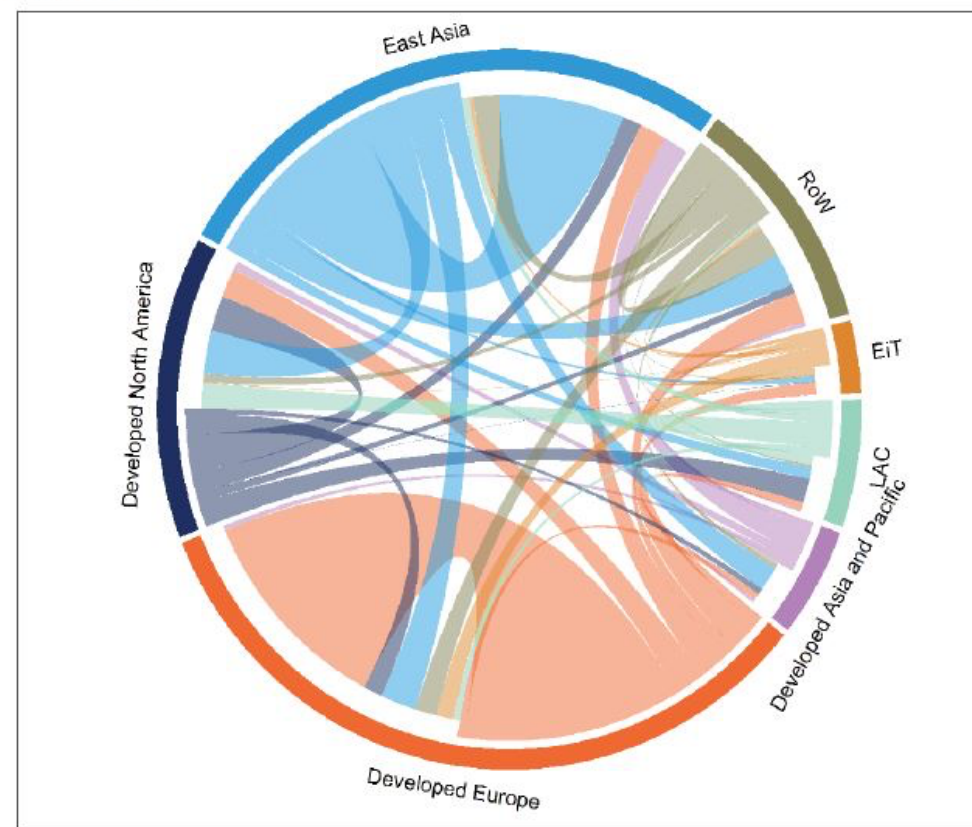
Composition of world merchandise trade value

Figure 3
Composition of world merchandise trade value, by regional trade flows

a) Year 2000



b) Year 2015



Source: Author's construction based on UNSD, Monthly Bulletin of Statistics Analytical Trade Tables.

Note: For each region, the outmost section of the chart denotes the relative size of the region's total trade (export plus import). The lines originating from each region denotes the region's exports to different regions, including intra-regional export. Abbreviations: LAC: Latin America and the Caribbean, EiT: Economies in transition, and RoW: Rest of the World.

<https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/DevIssues7-Fig3.jpg>

Degree of openness: $(X+M)/GDP$

Group of countries	2000	2020
NAFTA	5	6
MERCOSUR	6	5
EU 30	9	14
OPEC 29	3	2
ASEAN	16	26
Great China	7	8
Sub Saharian Africa	9	8
World	16	20

Source: UNCTAD/WTO

Q: What is the degree of openness for Thai and its implications? 17

Degree of openness: $(X+M)/GDP$



Q: What is the degree of openness for Thai and its implications?

In year	2006	2014
• Exports =	4,838.2	7,313.1 M.Baht
• Imports =	4,830.3	7,403.9 M.Baht
• GDP =	7,830.3	9,211.6 M.Baht
• $(X+M)/GDP*100$	%	%

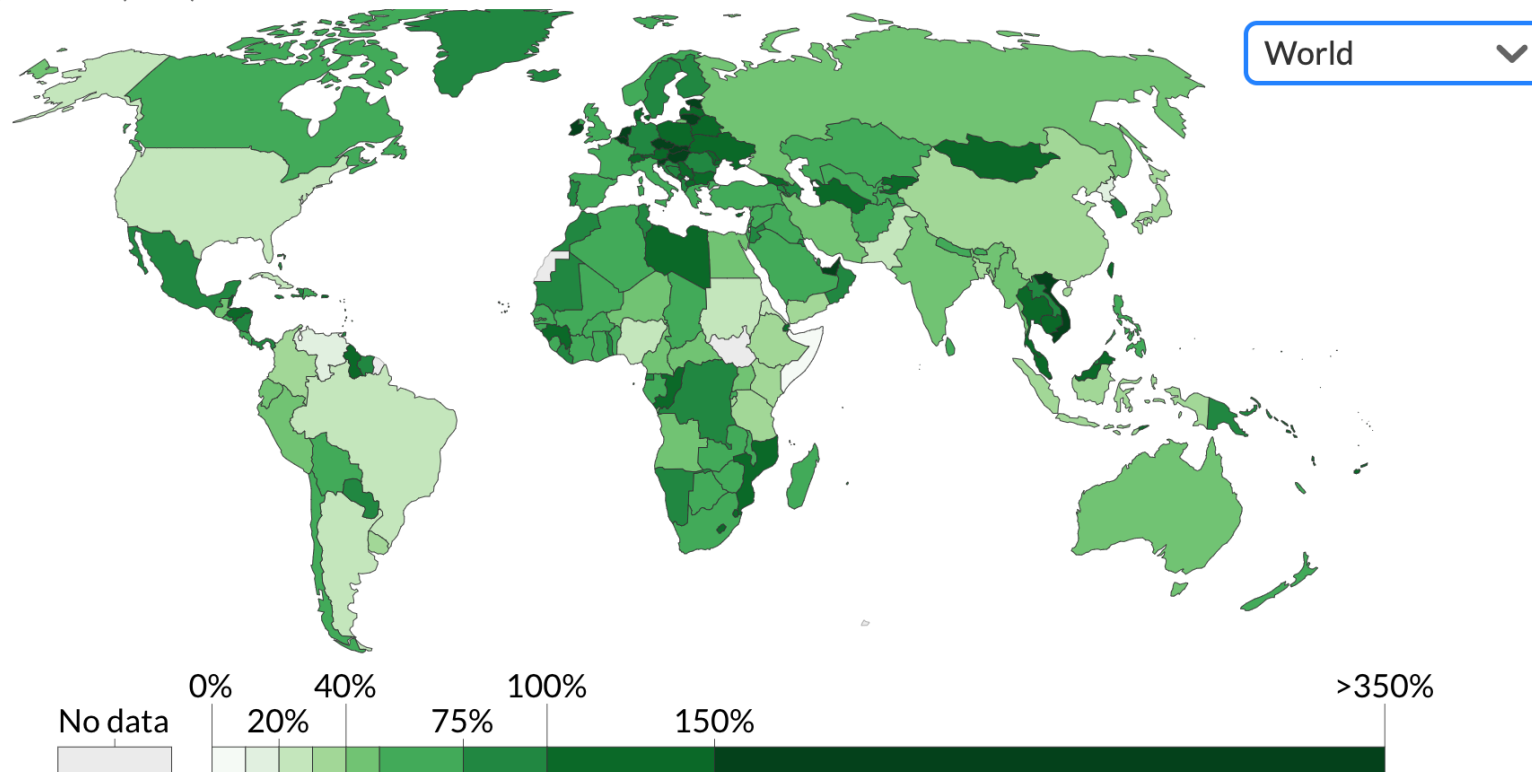
<https://ourworldindata.org/grapher/trade-openness>

Trade openness in 2017

Trade Openness, 2017

Trade openness is measured as the sum of a country's exports and imports as a share of that country's GDP (in %).

Our World
in Data



Source: Feenstra et al. (2015) Penn World Tables version 9.1

OurWorldInData.org/trade-and-globalization • CC BY

1950 2017

CHART

MAP

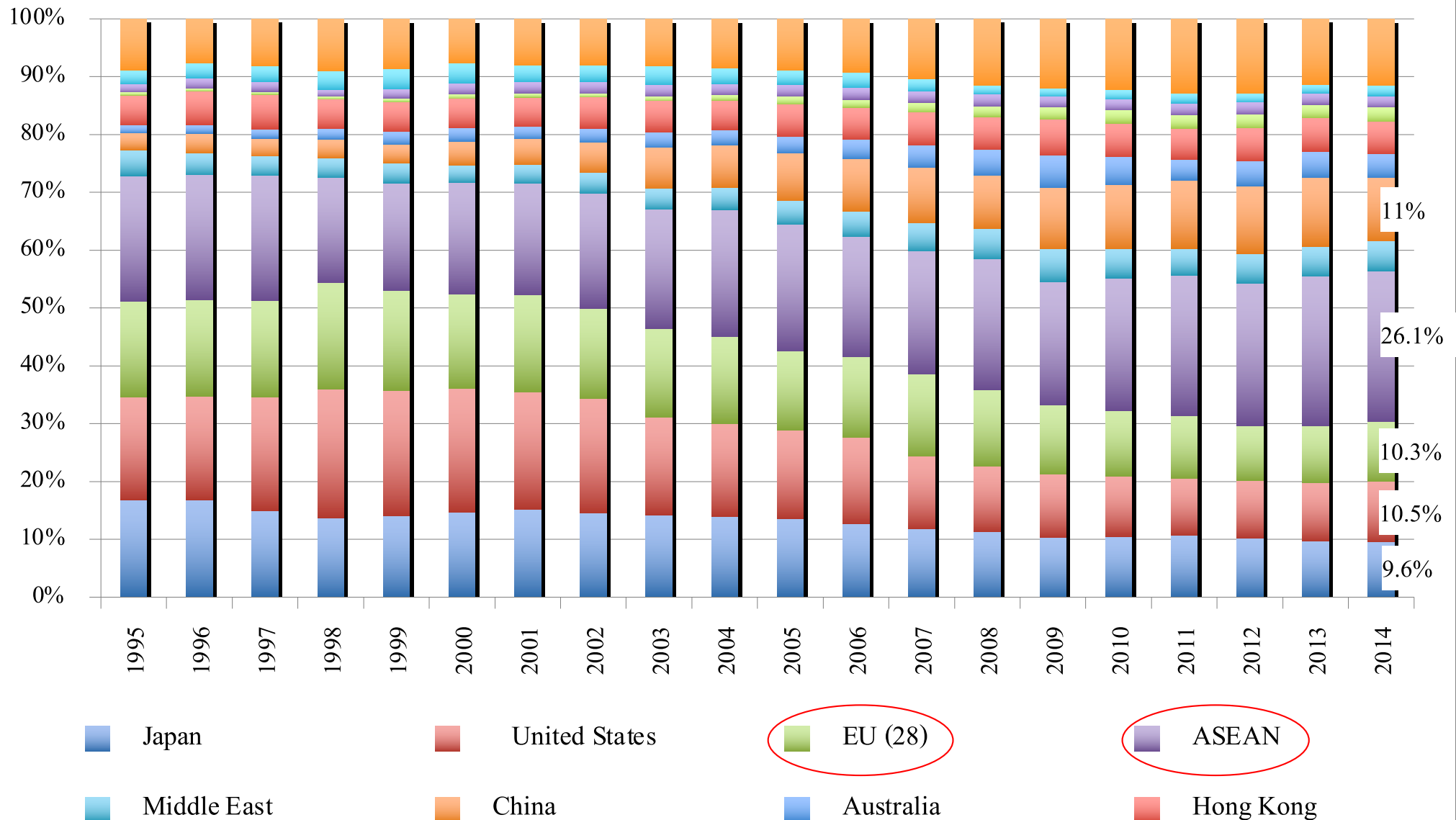
TABLE

SOURCES

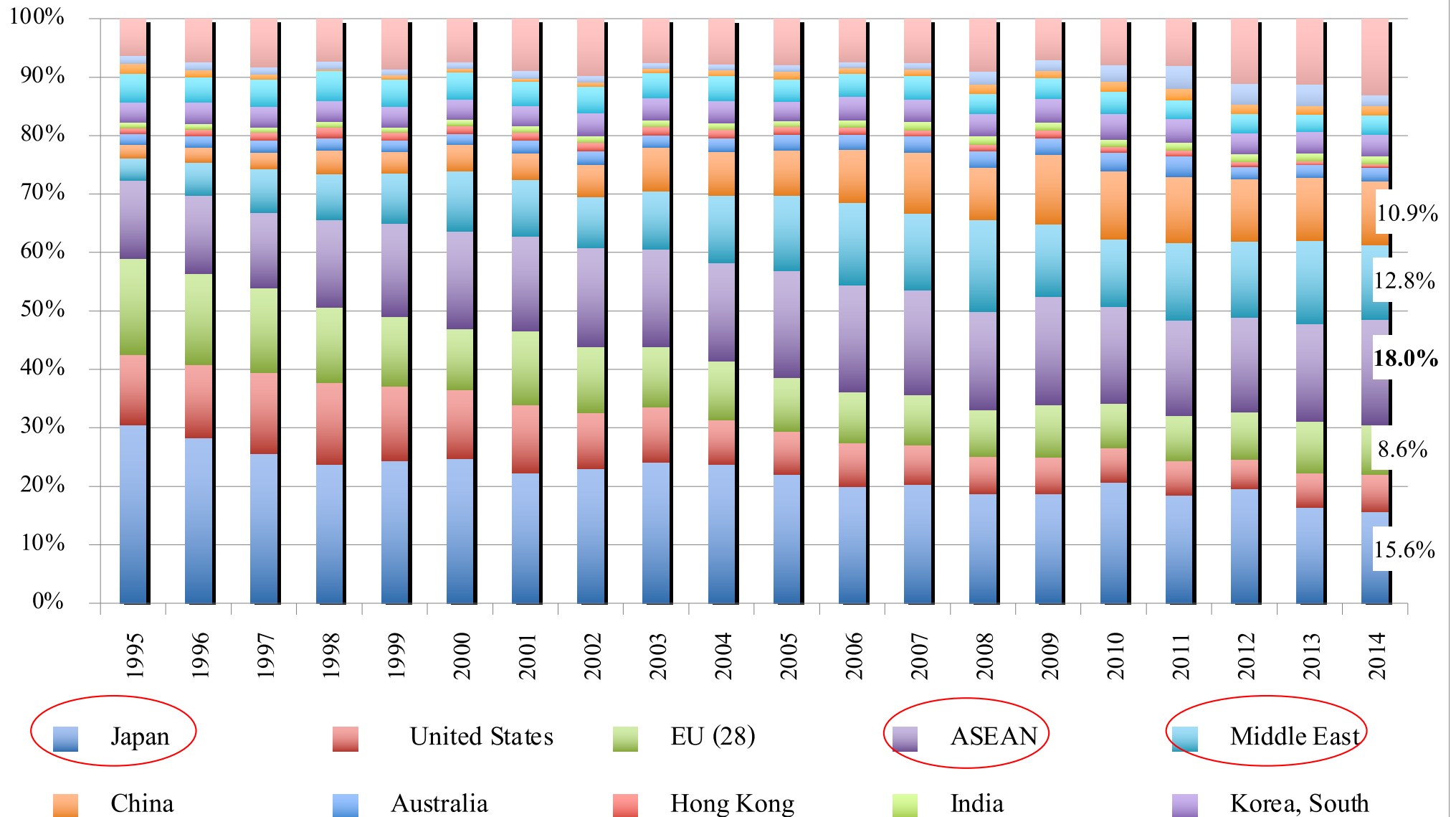
DOWNLOAD



Thailand Export Markets 1995 - 2014



Thailand Import Markets 1995 - 2014



Trade in Services: 1999



More than 20 % of world exports are trade in services, worth about \$1 trillion

Exports	\$billion	%	Imports	billion	%
US	167.5	(16.4)	US	113.4	(11.5)
France	100.8	(9.9)	Germany	111.9	(11.3)
Japan	53.2	(5.2)	Japan	100.7	(10.2)
Thailand	11.2	(1.1)	Thailand	11.8	(1.2)

Trade in Services: 2006



Billion Dollars

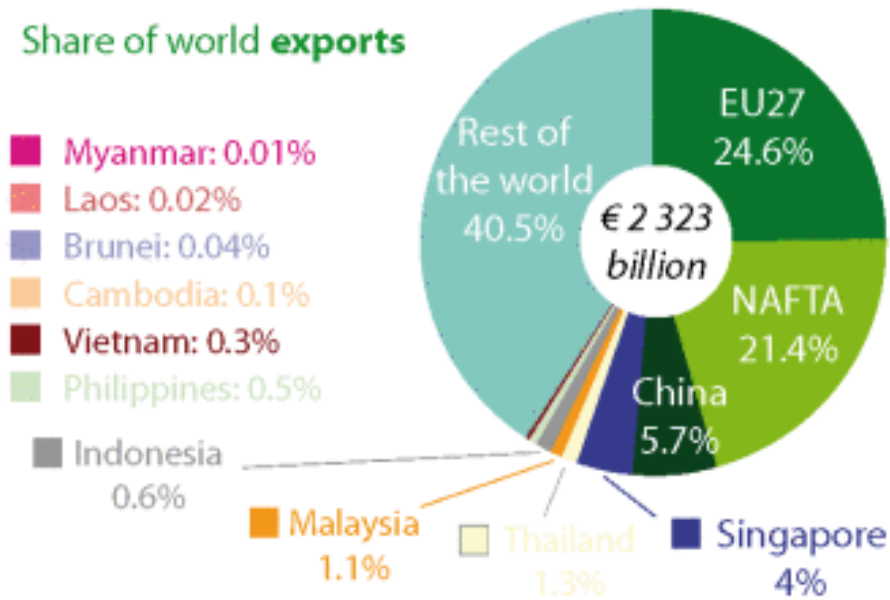
Rank	Exporters	Value	Share	Rank	Importers	Value	Share
1	U.S.A.	388.8	14.1	1	U.S.A	307.8	11.6
2	U.K.	227.5	8.3	2	Germany	219.1	8.3
3	Germany	168.8	6.1	3	U.K.	172	6.5
4	Japan	122.5	4.4	4	Japan	144	5.4
5	France	114.5	4.2	5	France	108.8	4.1
6	Spain	105.5	3.8	6	China	100.3	3.8
7	Italy	97.5	3.5	7	Italy	98.4	3.7
8	China	91.4	3.3	8	Ireland	78.4	3
9	Netherland	82.5	3	9	Netherlands	78.1	2.9
10	India	73.8	2.7	10	Spain	77.9	2.9
27	Thailand	23.9	0.9	22	Thailand	31.8	1.2
	World	2755	100		World	2650	100

Source: WTO, http://www.wto.org/english/res_e/statis_e/its2007_e/its07_world_trade_dev_e.htm

Trade in Services: 2011

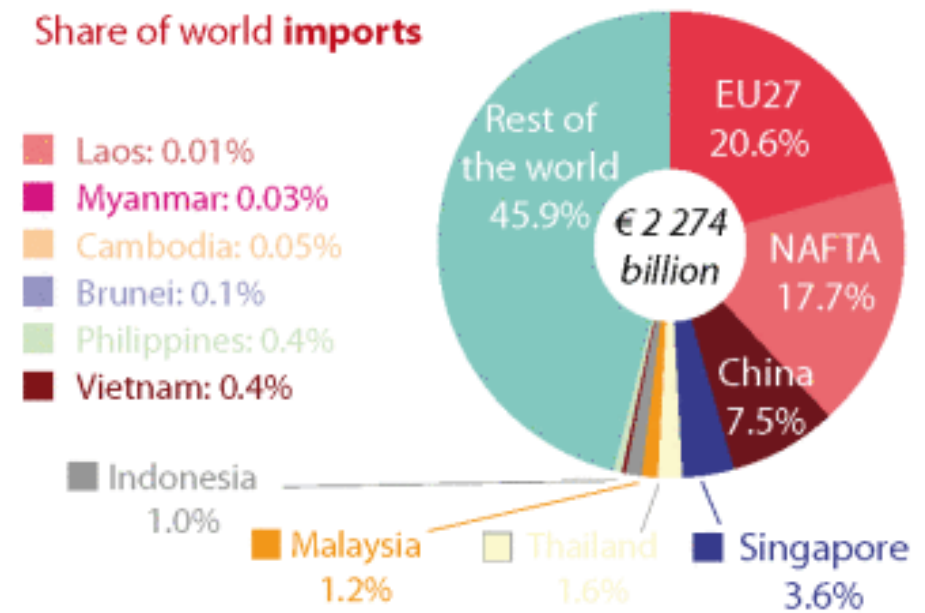
World trade in services (2011)

Share of world **exports**



The ASEAN countries' exports altogether amount to € 183 billion, representing 7.9% of the global exports

Share of world **imports**



The ASEAN countries' imports altogether amount to € 189 billion, representing 8.3% of the global imports

<https://epthinktank.eu/2013/02/26/eu-asean-trade-relations/fig-3/>

What is International Economics About?



- **The Pattern of Trade** (who sells what to whom?)
 - Technology, resources, market structure, and government policy determine the trade pattern of several goods.

What is International Economics About?



- There are two types of trade:
 - **Inter-industry trade:** trade of different products categories across countries.
 - Thailand exports rubber to the US. While the US. exports mobile phones to Thailand
 - **Intra-industry trade:** trade of similar product categories across countries.
 - the US. and Europe simultaneously import and exports cars to each other.

What is International Economics About?



- The Gains from Trade
 - Many people are skeptical about importing goods that a country could produce for itself.
 - When countries sell goods to one another, all countries benefit.
 - Trade and income distribution
 - International trade might hurt some groups within nations.
 - Trade, technology, and wages of high and low-skilled workers.

What is International Economics About?



- Trade policies
 - International economics deals with economic interactions that occur between independent nations.
 - The role of governments in regulating international trade and investment is substantial.
 - International trade institutions play important role in regulating the trade policy of each nation.

Early Trade Theories and The Classical Trade Theory

Mercantilism



- **Mercantilist doctrine:**
 - the national wealth depends on the amount of **precious metals** (specie) that country is holding.
 - Acquisition of precious metals is the mean for increasing wealth. --> Colonialism.
 - **Zero-sum game:** One country's gain is at the expense of another. --> **trade surplus is preferred to trade deficit.**
 - Need **strong government to regulate** the economy.
 - exchange of precious metals regulation, monopoly

Challenge to Mercantilism



- **David Hume: price-specie-flow mechanism**
 - From the quantity theory of money: $MV = PY$
 - trade surplus
 - accumulation of gold
 - increase M
 - increase prices and wages
 - reduce competitiveness and trade surplus

Challenge to Mercantilism



- **Adam Smith: laissez faire and absolute advantage**
 - the national wealth depends on its productive capacity.
 - Growth in productive capacity is fostered in free market.
 - Self-interest leads individuals to specialize in and exchange goods based on their own special abilities.
 - Countries should specialize in and export those commodities in which they had an absolute advantage.

Analysis of absolute cost advantage

International trade based on differences in technology

assumptions

- 2 countries; USA and Japan
- 2 goods; Food and Cars
- 1 factor of production; labor L
- Constant returns to scale; CRS
- Labor mobility between sectors, not between countries
- Perfect competition
- No transport costs

unit labor requirement = units of labor required to produce one unit of a final good

By assumption this is independent of the number of laborers active in a sector (CRS), but may differ between the two countries.

Let a_F^{US} be the unit labor requirement for good F in USA, etc.

Analysis of absolute cost advantage

Table 2.1 Productivity table; labor required to produce 1 unit of output

	General specification			Example	
	Food	Cars		Food	Cars
USA	a_F^{US}	a_C^{US}	USA	2	8
Japan	a_F^J	a_C^J	Japan	3	6

Note that the USA is more efficient than Japan for the production of Food (requires $2 < 3$ laborers), while Japan is more efficient than the USA in the production of cars (requires $6 < 8$ laborers).

USA has an absolute advantage in Food while Japan has an absolute advantage in cars.

In autarky (without international trade) both countries will produce both goods if consumers demand both Food and Cars.

Analysis of absolute cost advantage



Both countries can gain from international trade through specialisation (USA producing more food and Japan producing more cars):

Suppose the USA produces 1 car less, this frees up 8 laborers.

These 8 laborers can now produce $8/2 = 4$ units of food

To keep the production level of cars constant, Japan should make 1 car more. This requires 6 laborers.

These 6 laborers could have made $6/3 = 2$ units of food.

Conclusion:

	USA	Japan	change world prod.
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production of cars:	-1	+1	0
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production of food:	+4	-2	+2
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The extra production represents gains from trade

What if one country has no absolute advantage in any good?

Useful websites for this course:



- Deardorff's Glossary of International Economics
<http://www-personal.umich.edu/~alandear/glossary/>
- WTO 
http://wto.org/english/res_e/res_e.htm
- ASEAN: <http://www.aseansec.org/>



Question

A company consists of a manager and a secretary.

The manager is more able in both executive and typing works than the secretary.

Should the manager do all works or concentrate on the work he or she has comparative advantage?

Supplementary reading

“World Trade Report, 2019” at

https://www.wto.org/english/res_e/booksp_e/00_wtr19_e.pdf