

International Economic Outlook: Shifting International Trade Routes

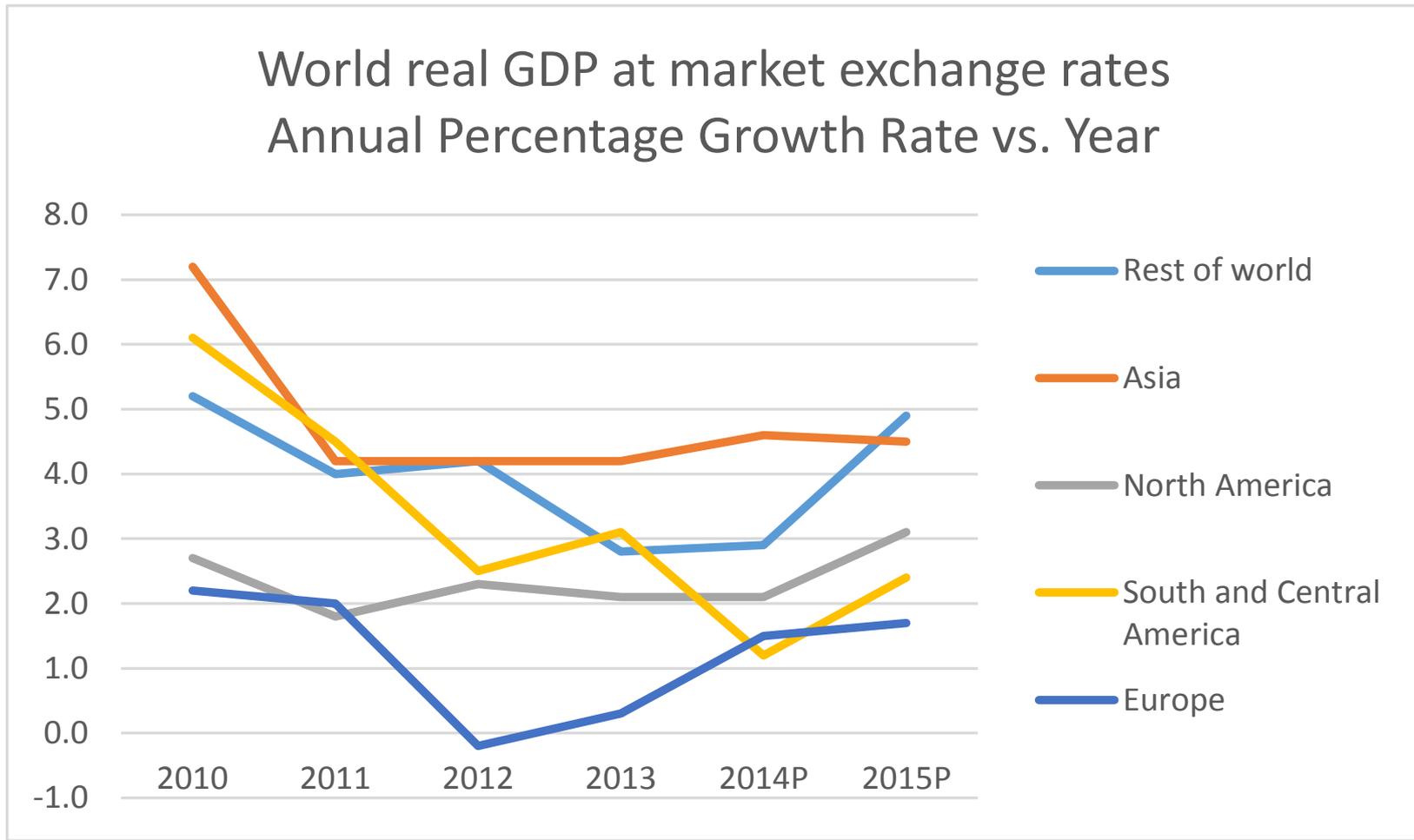
Larry Boorstein, Project Manager, AECOM

Prepared for Shifting International Trade Routes, January 29-30, 2015, Tampa, presented by AAPA in cooperation with the U.S. Maritime Administration hosted by the Port of Tampa Bay

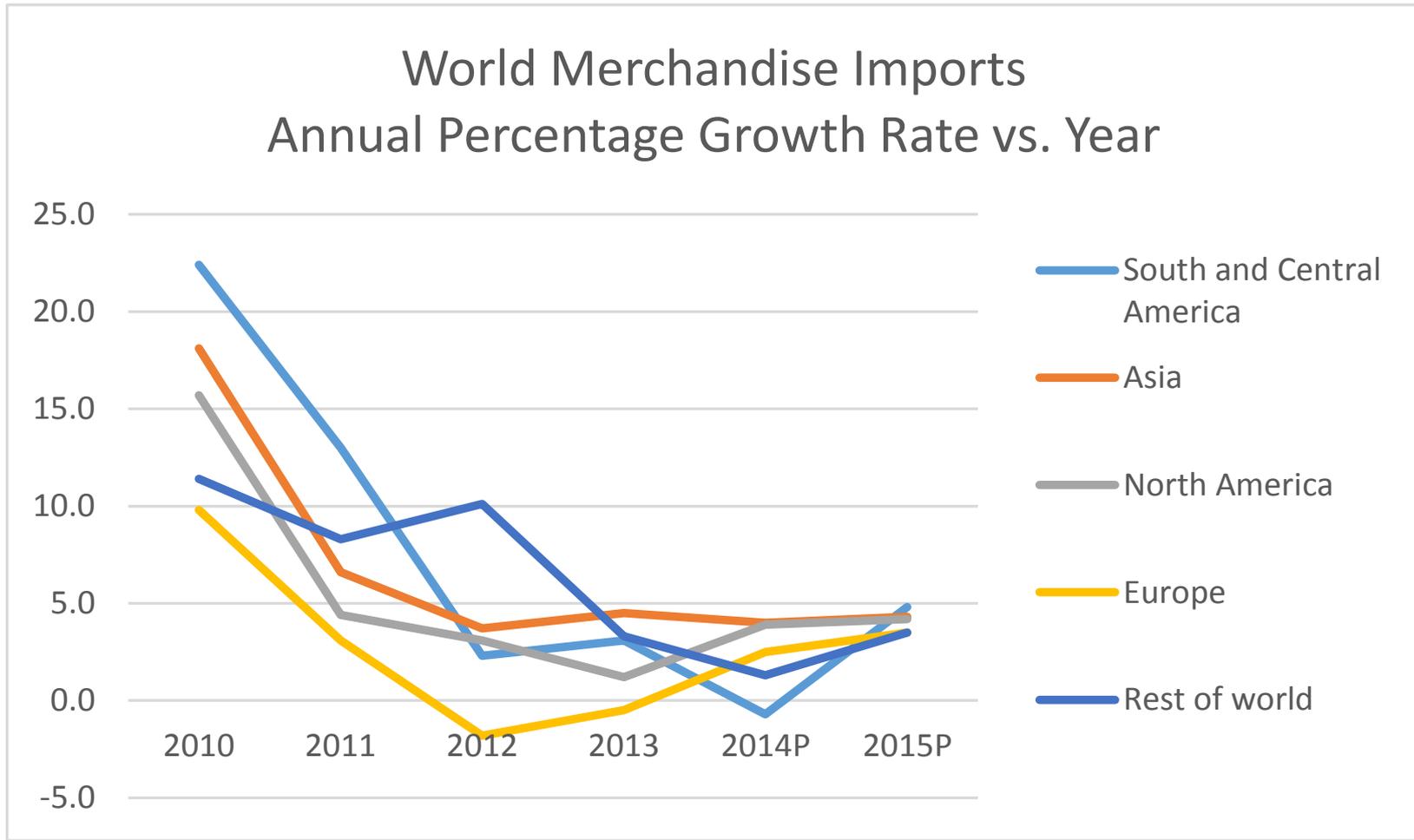
World merchandise trade



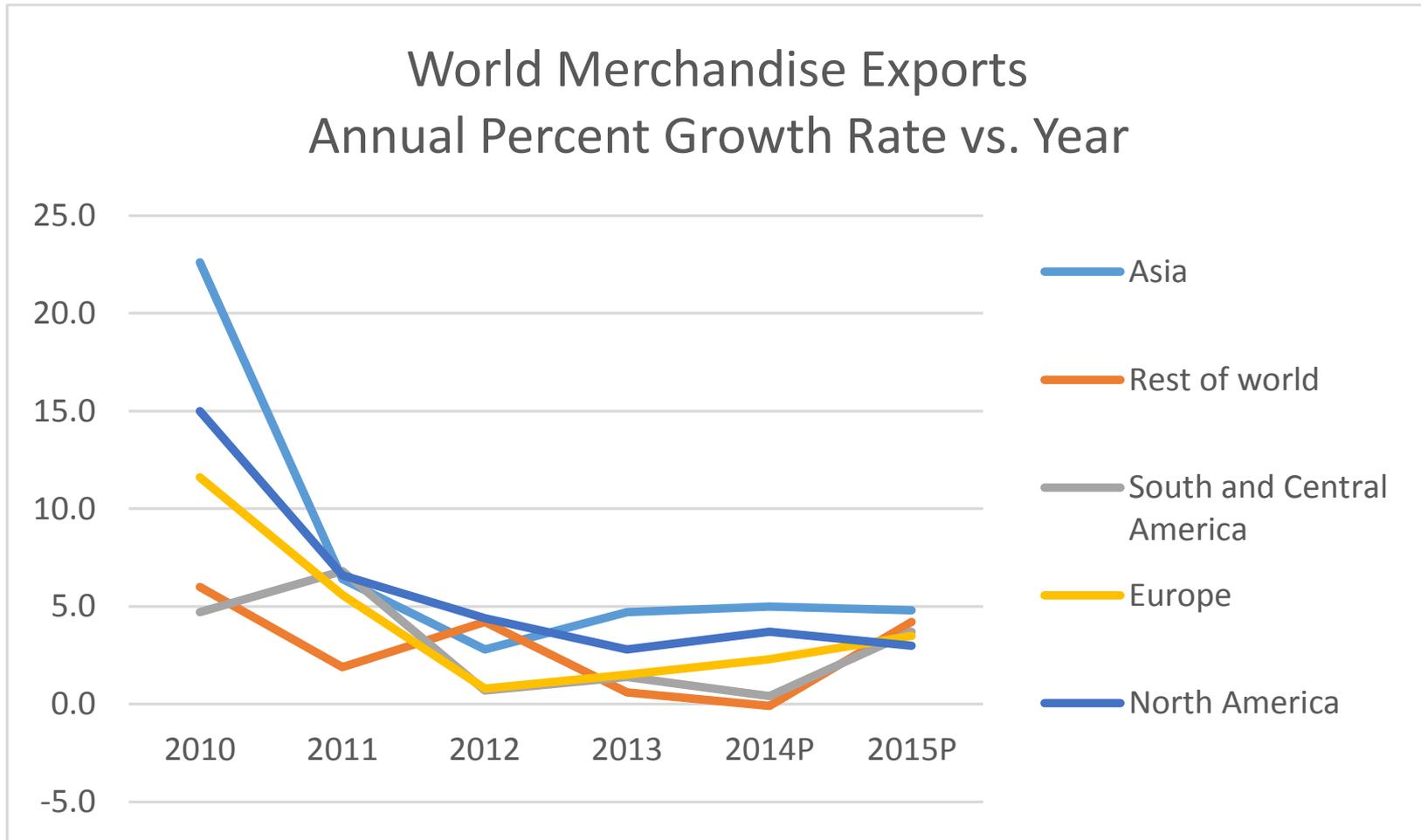
World real GDP at market exchange rates



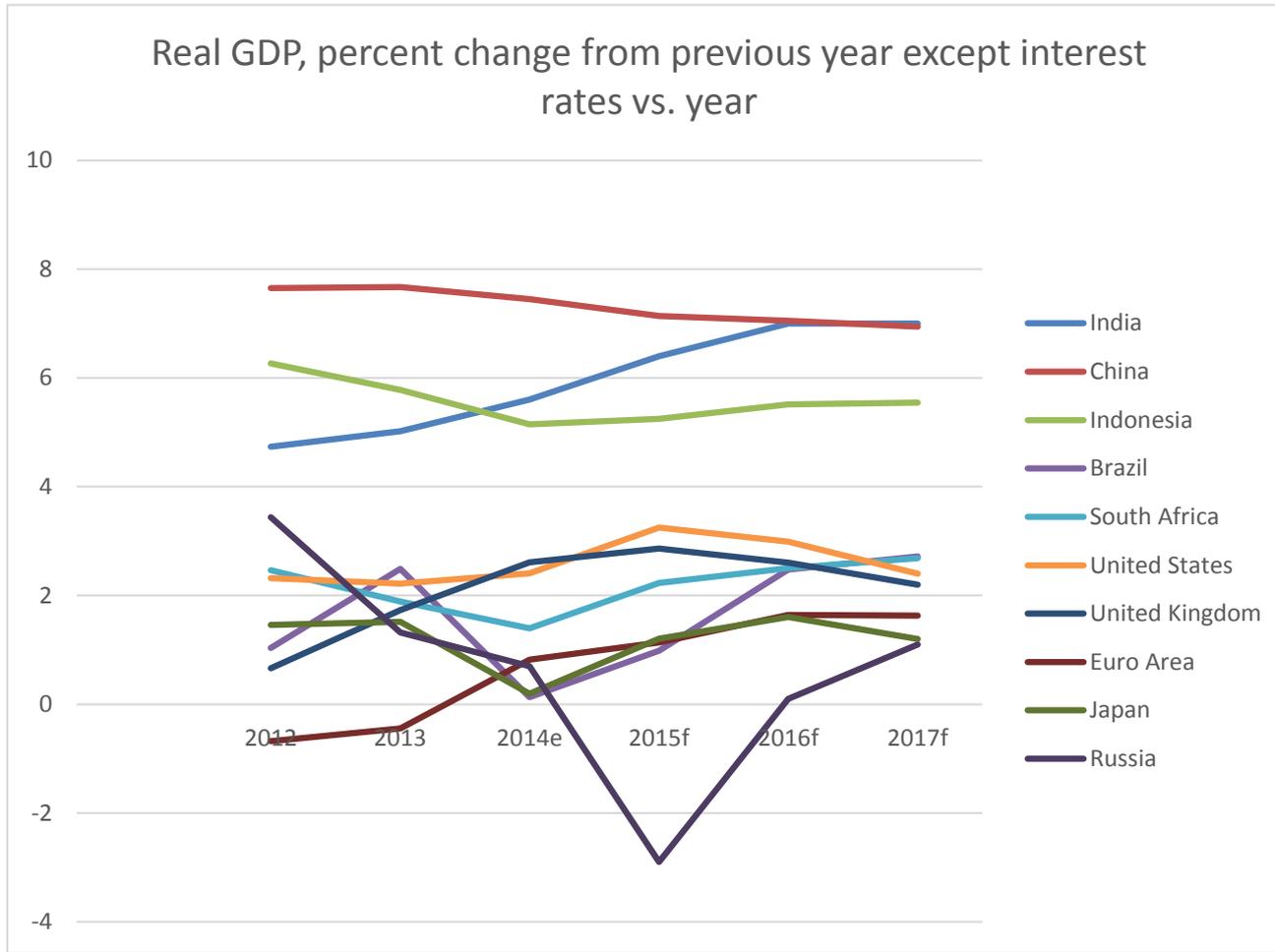
World merchandise imports



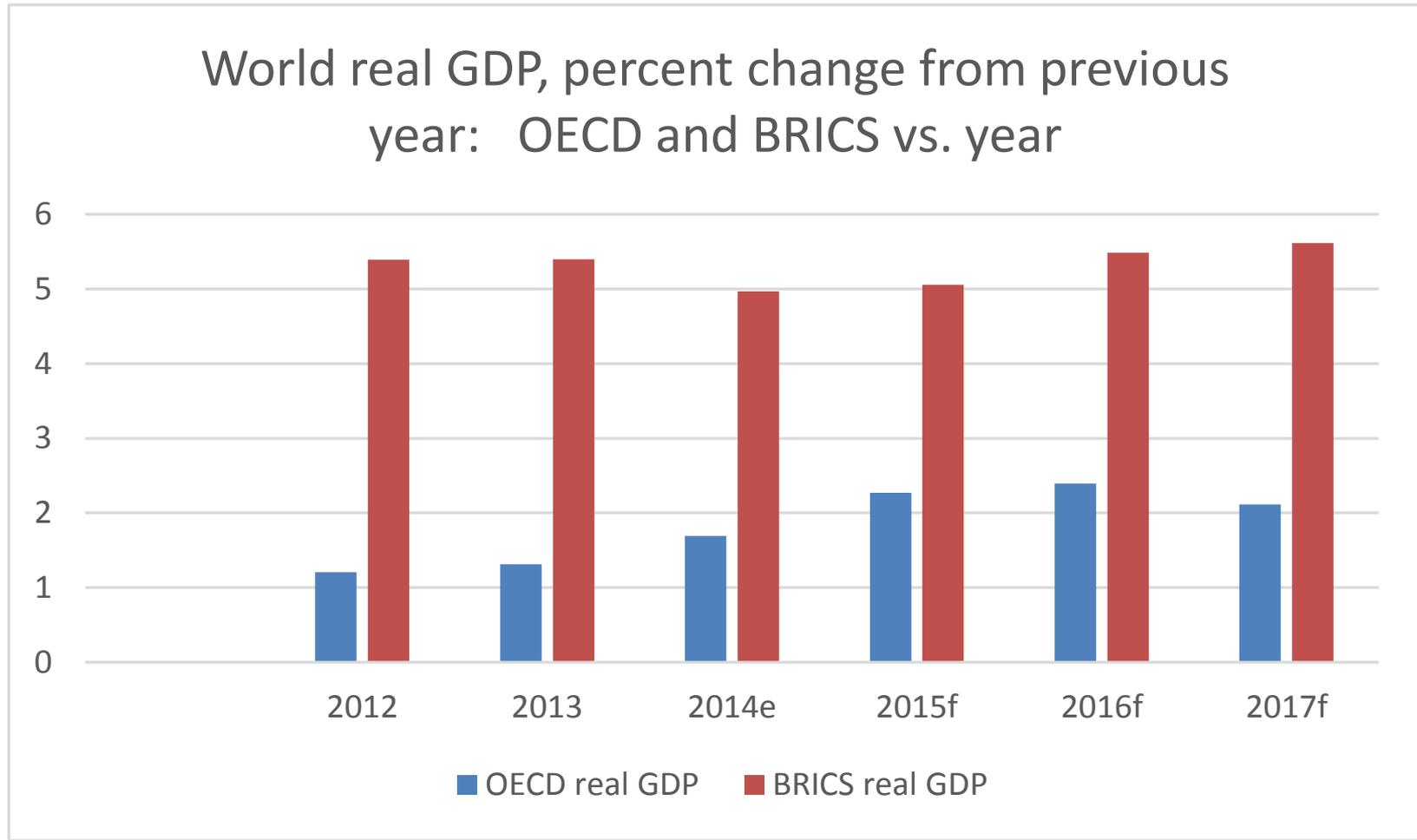
World merchandise exports



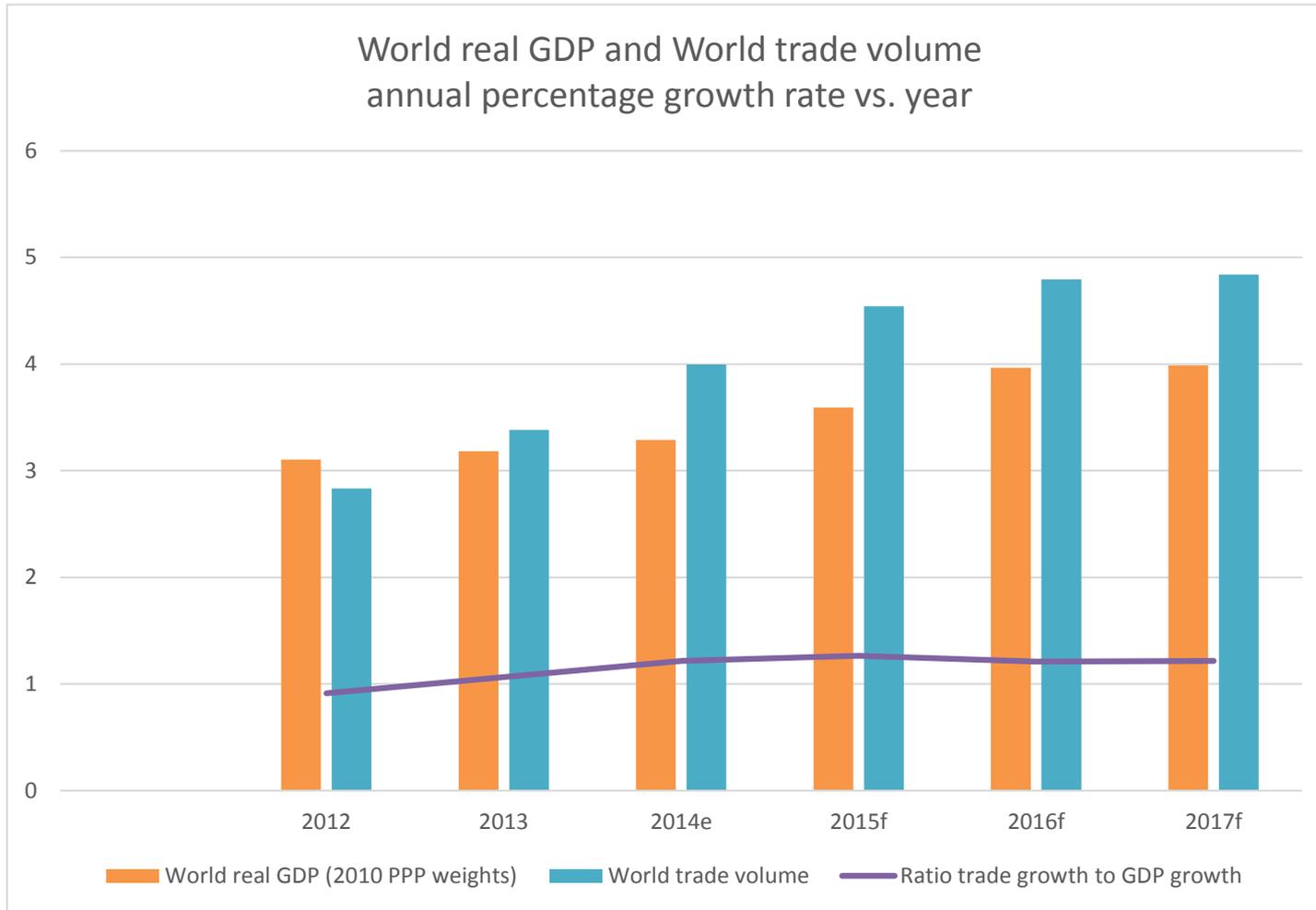
Real GDP growth



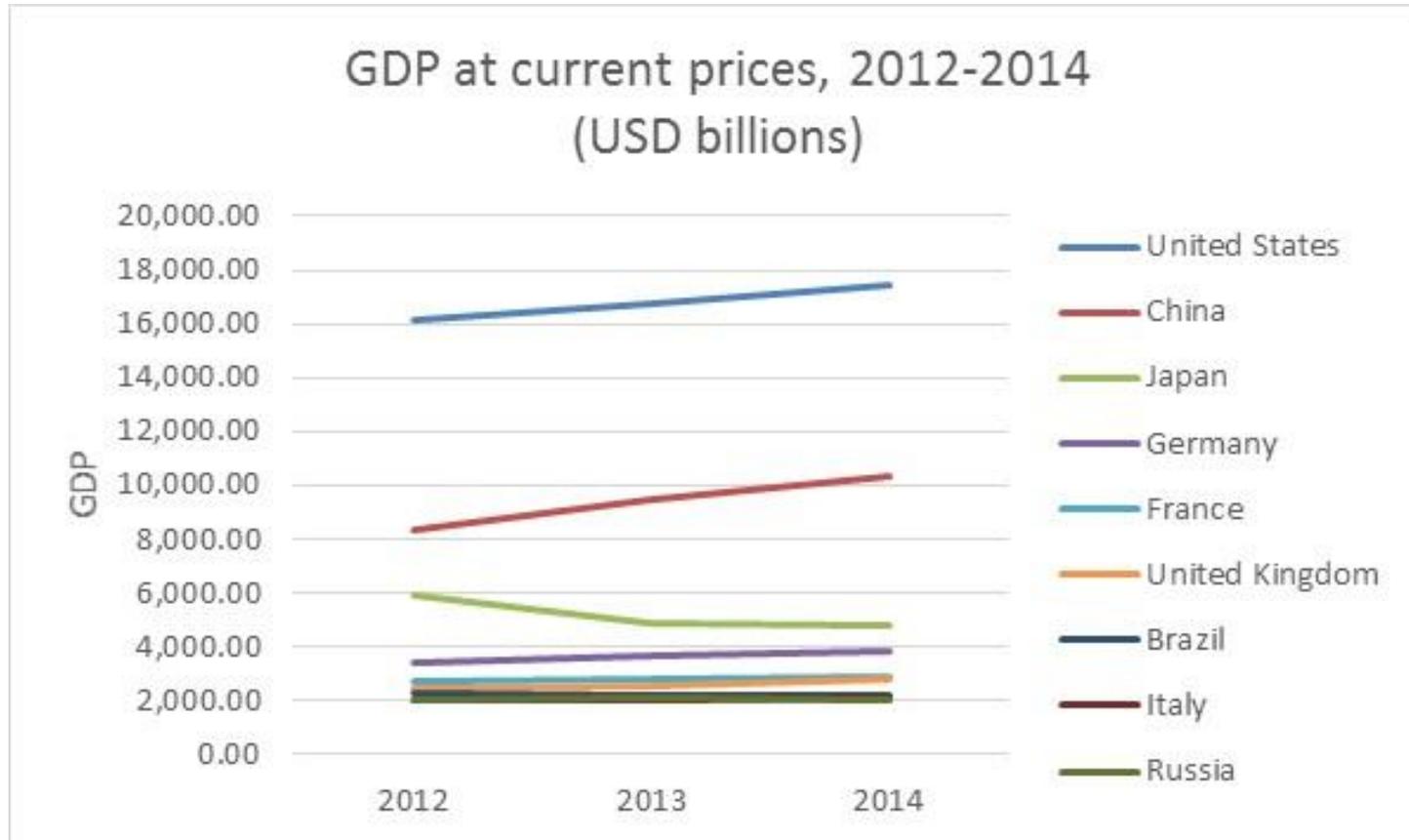
Real GDP growth, OECD and BRICS



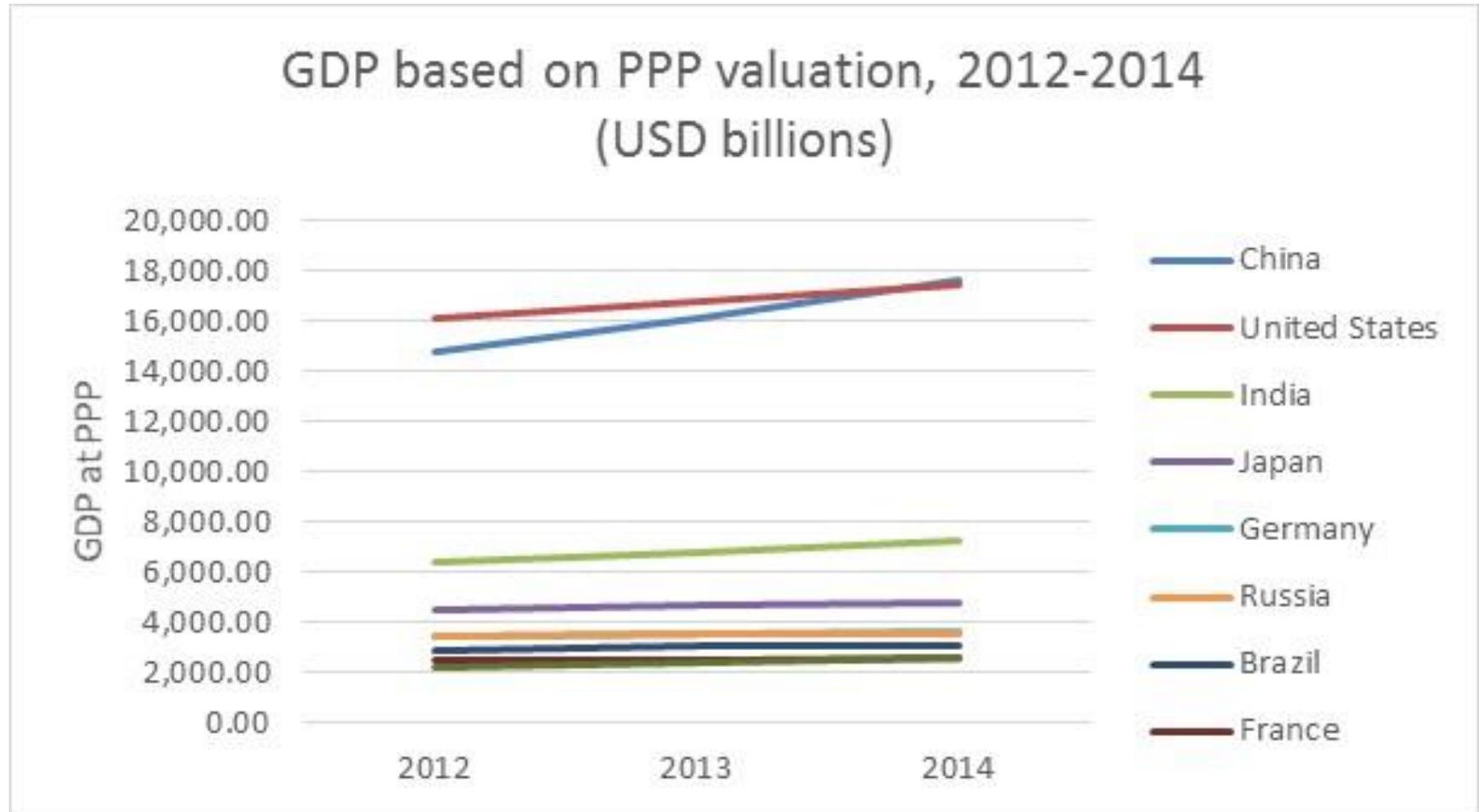
World real GDP and world trade volume growth



GDP at current prices by country



GDP based on PPP valuation

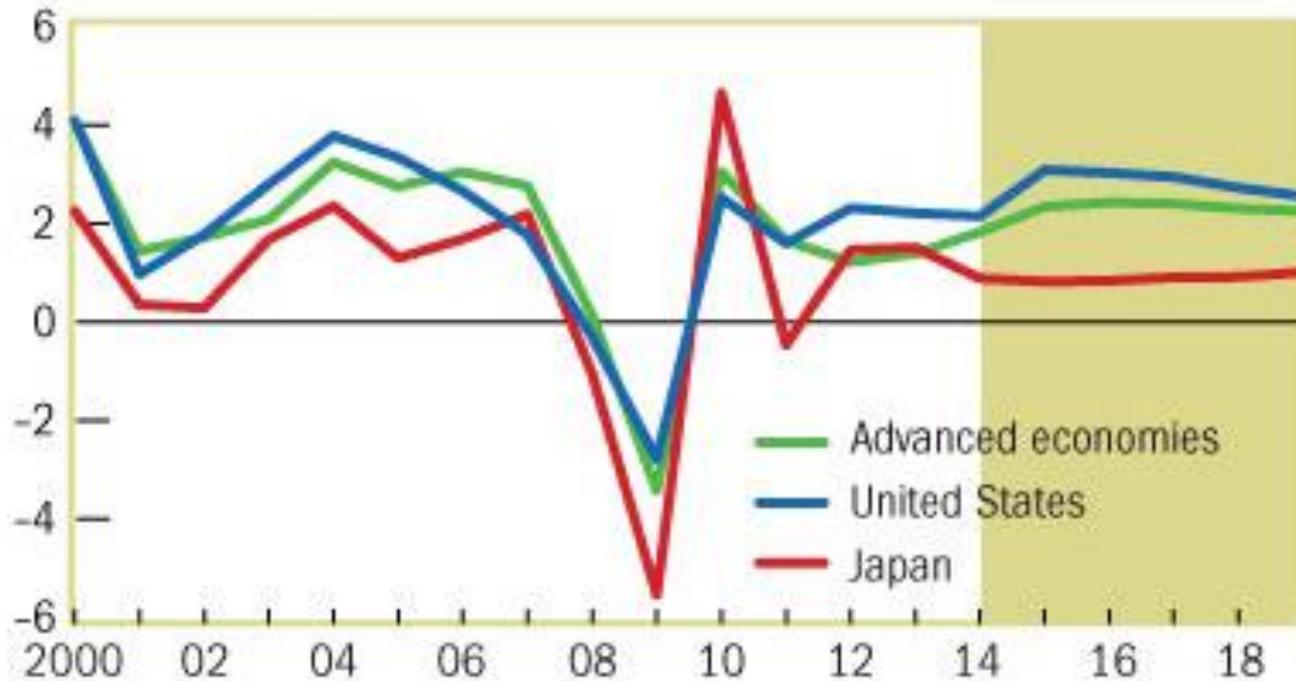


Growth in real GDP

IMF, World Economic Outlook, October 2014

United States and Japan

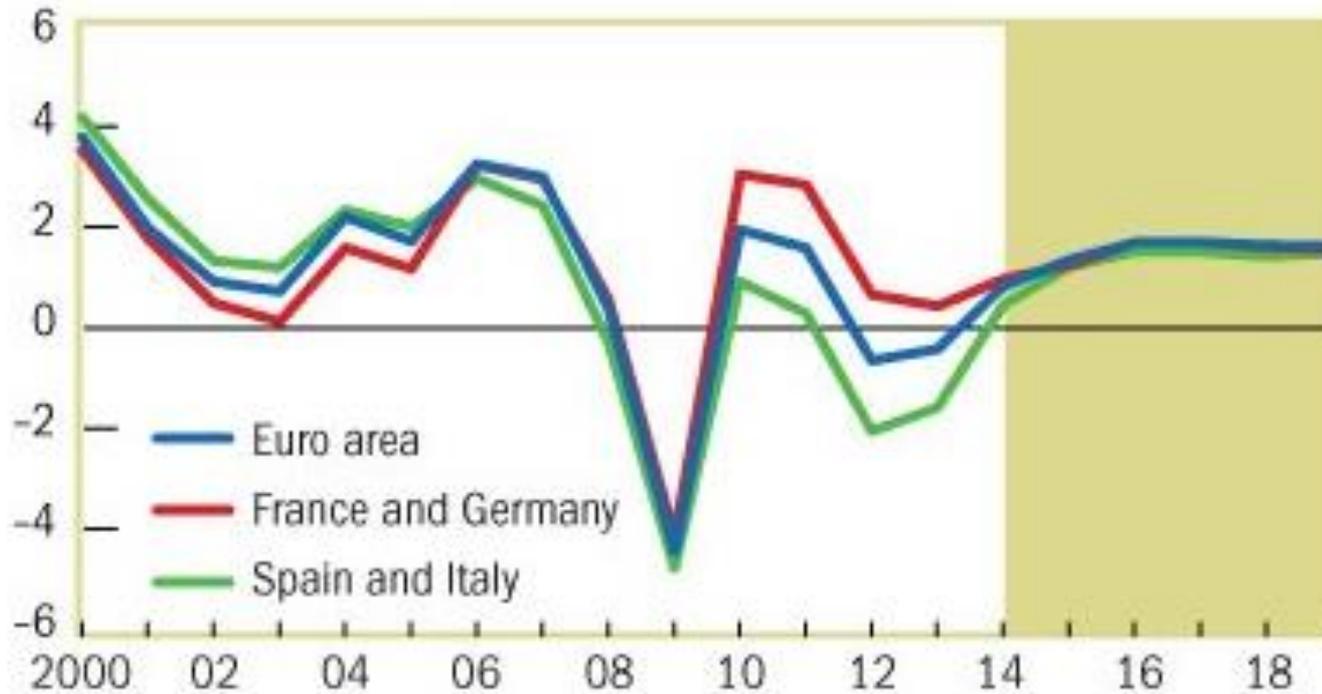
Growth in the U.S. has rebounded with jobs picking up; Japan's recovery has slowed



Growth in real GDP

Euro Area

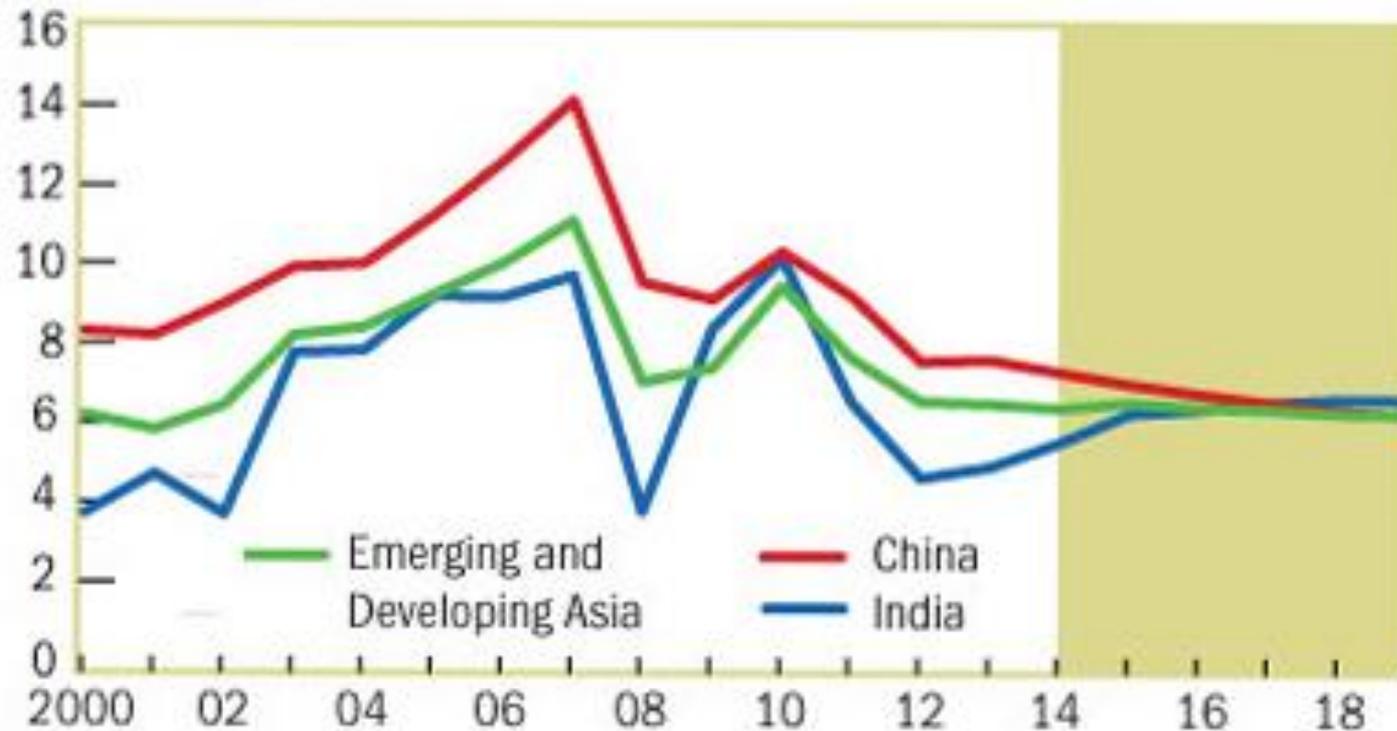
The euro area shows signs of a slow and fragile recovery, but still faces difficult challenges



Growth in real GDP

Emerging and Developing Asia

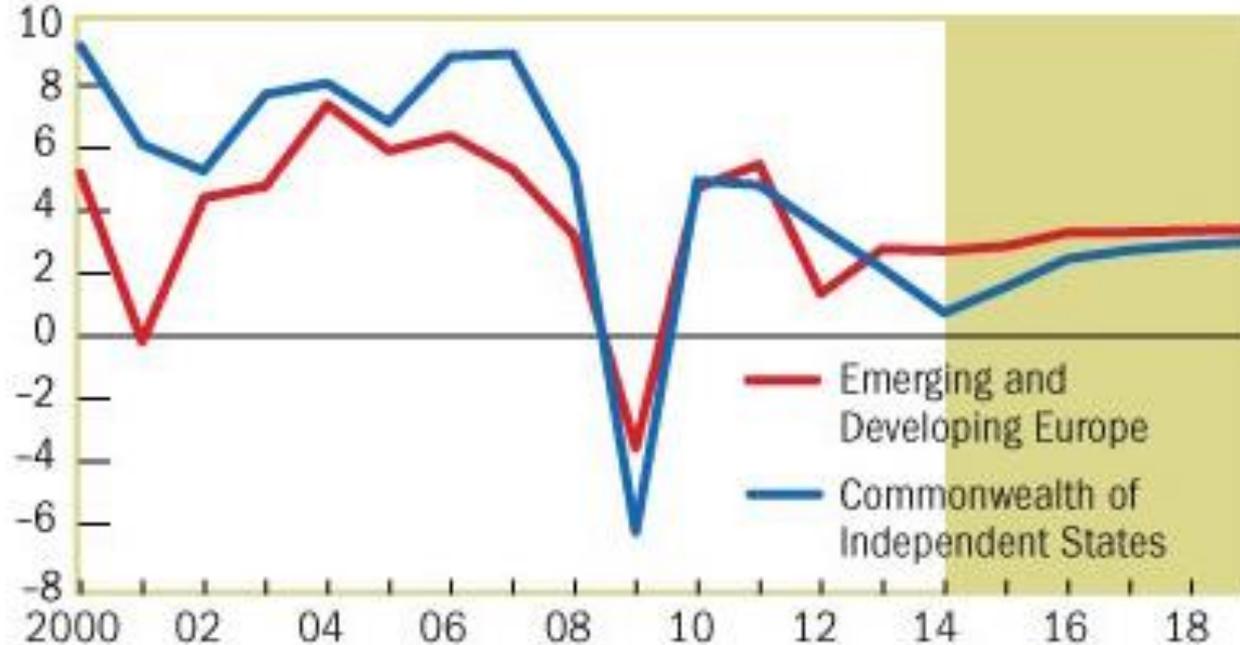
Emerging markets are adjusting to slower growth to different degrees in the region



Growth in real GDP

CIS¹ and Emerging and Developing Europe

In Russia and the CIS weaknesses reflect the impact of geopolitical tensions



Growth in real GDP

MENAP² and Sub-Saharan Africa

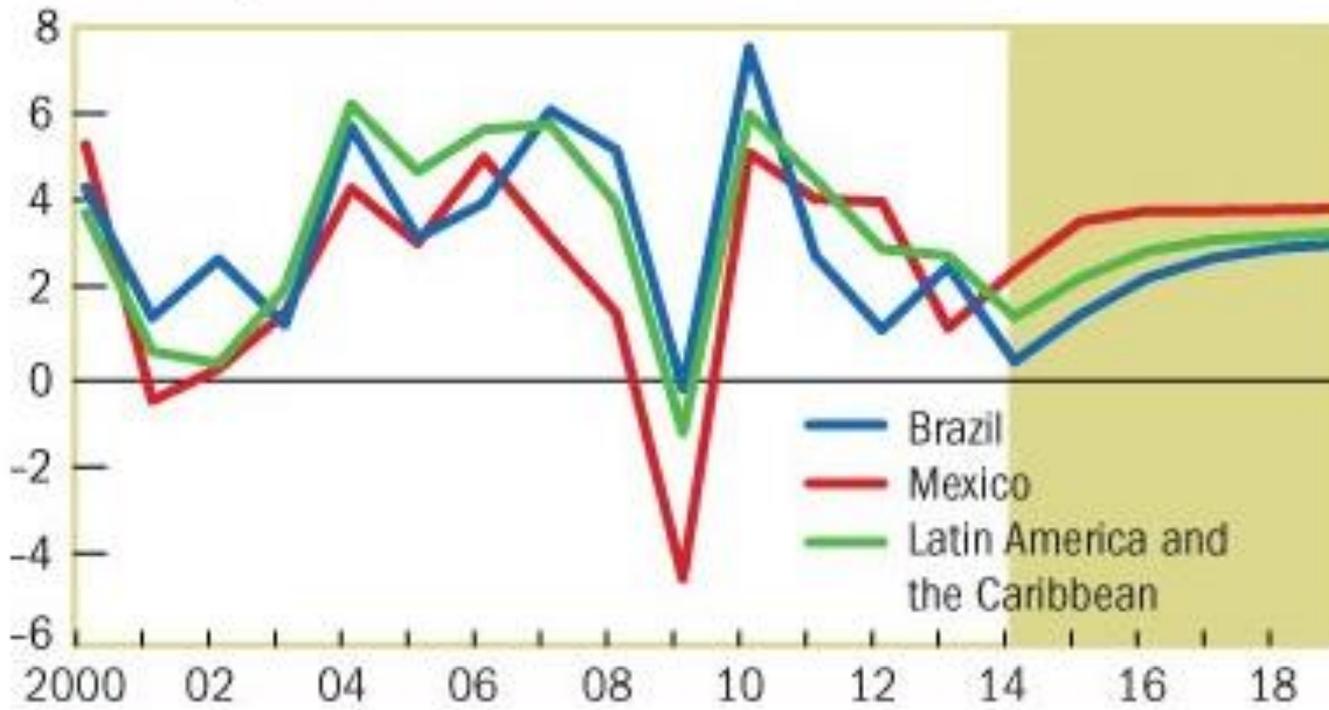
Growth in the Middle East has been marked down; Africa is still doing well, although Ebola poses risks



Growth in real GDP

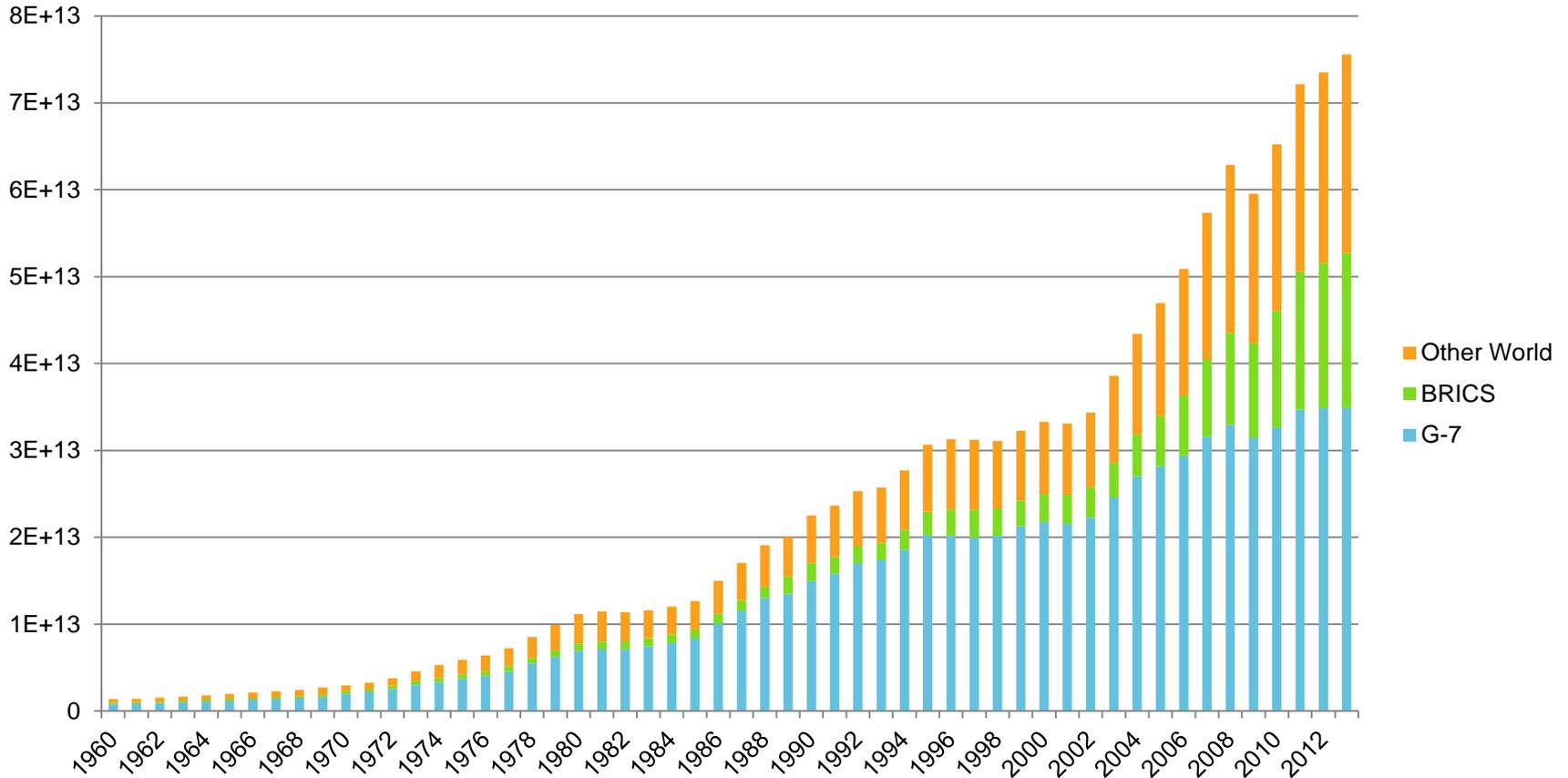
Latin America and the Caribbean

Growth will slow sharply this year, particularly in Brazil, with a rebound expected in 2015



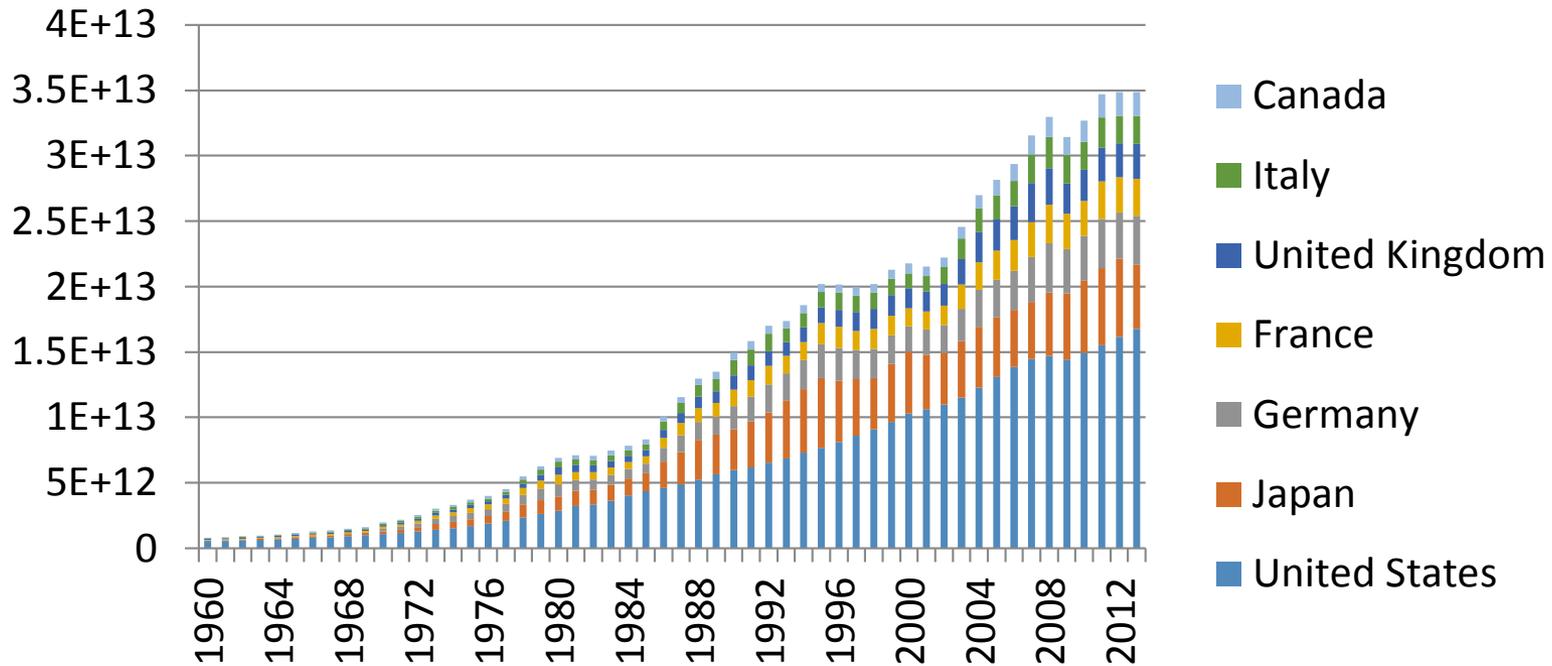
World GDP in current USD

GDP by G-7, BRICS and Other World, 1960-2013 (USD)



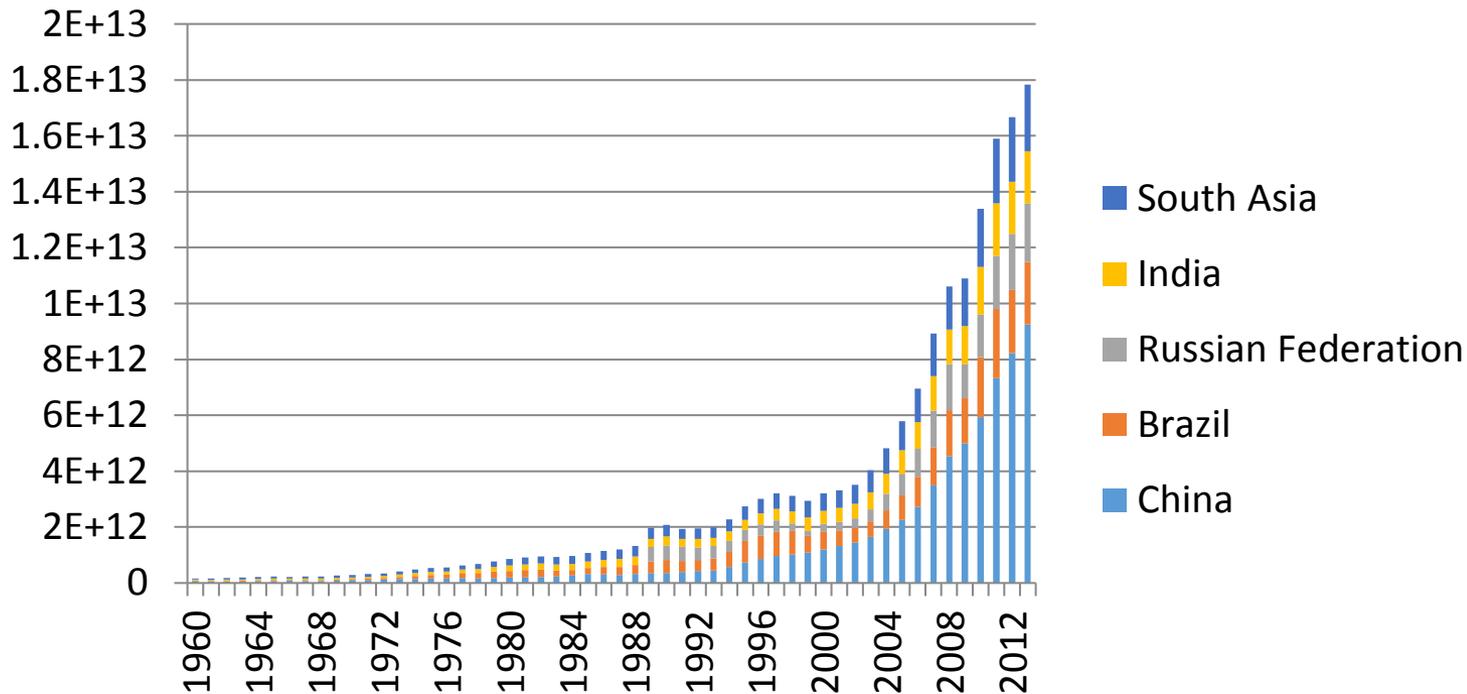
G-7 GDP in current USD

GDP by G-7 Countries and Year, 1960-2013 (USD)

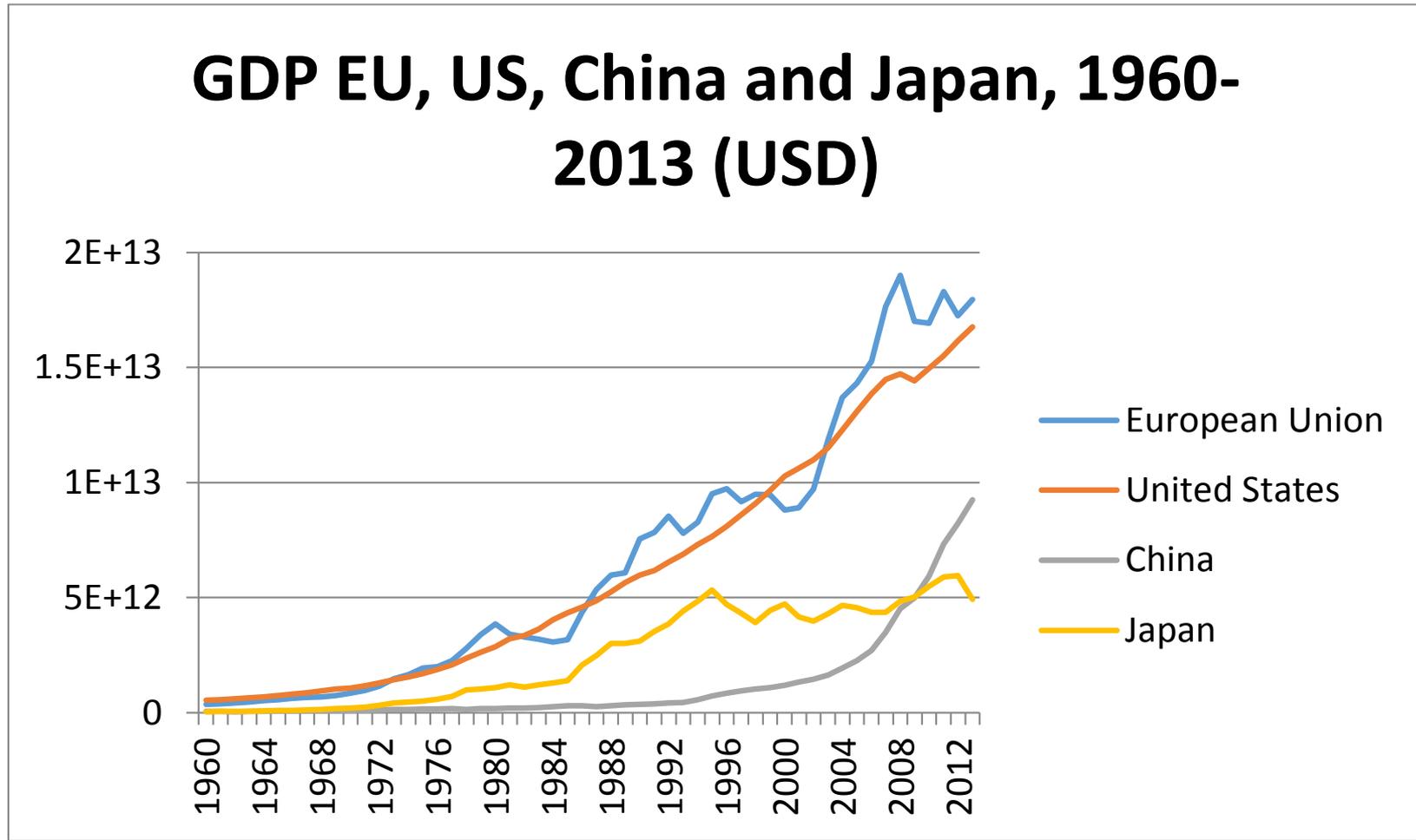


BRICS GDP in current USD

GDP by BRICS Countries and Year, 1960-2013 (USD)

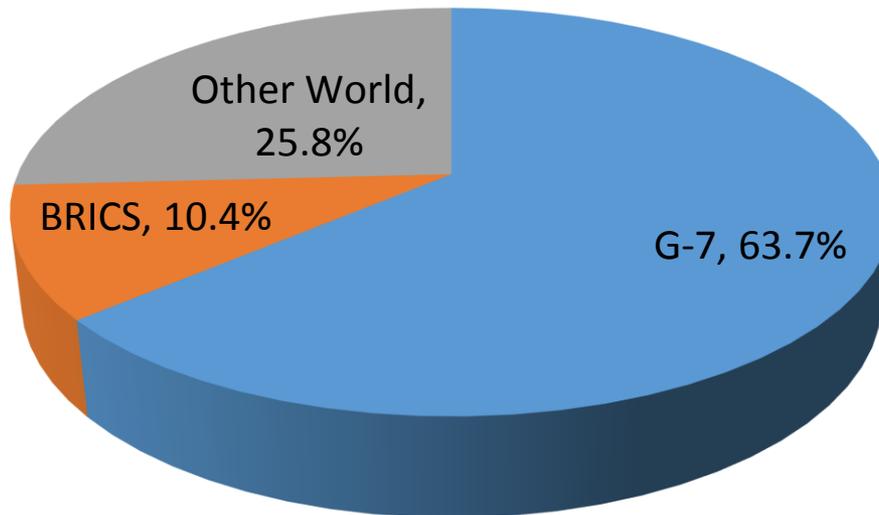


EU, US, China and Japan GDP in current USD



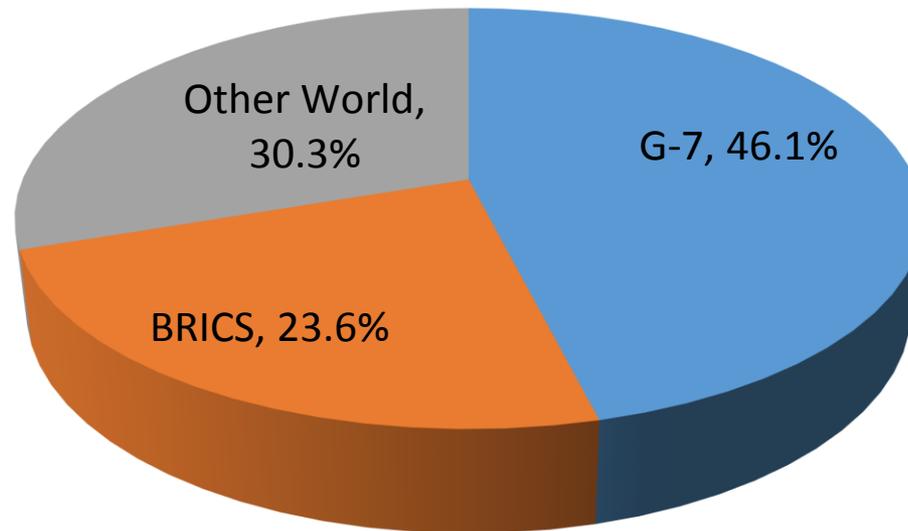
Share of World GDP, 2003

Share of World GDP by G-7 and BRICS, 2003



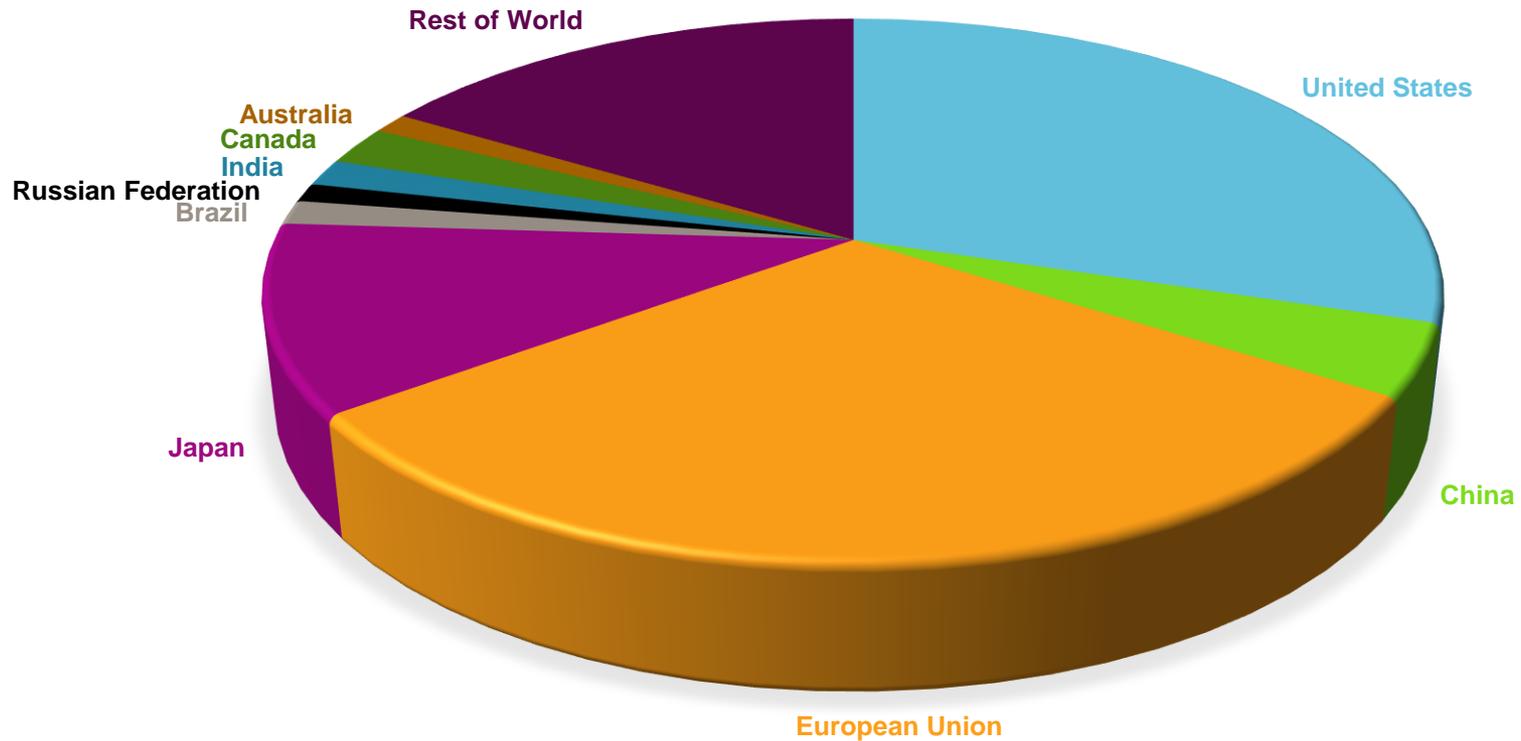
Share of World GDP, 2013

Share of World GDP by G-7 and BRICS, 2013



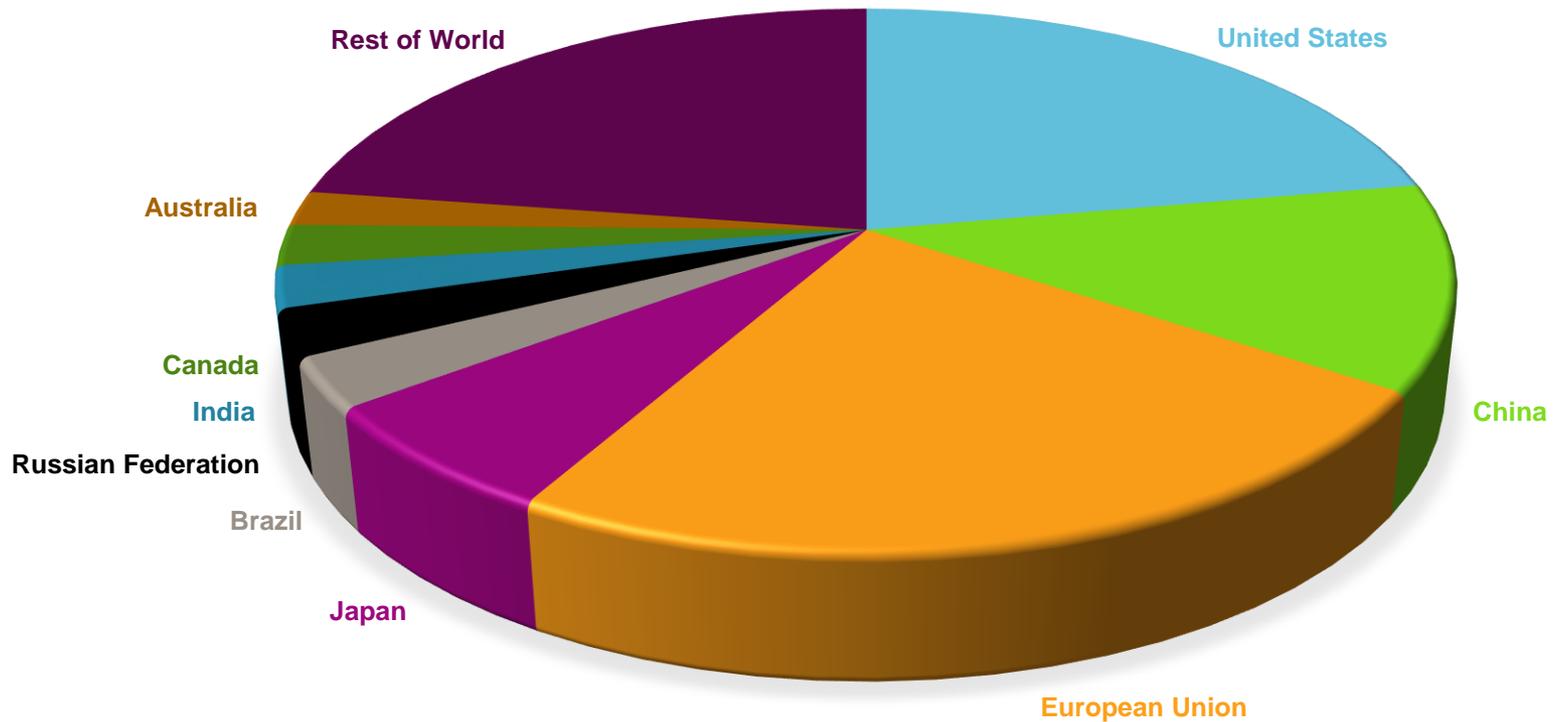
Country Shares of World GDP, 2003

SHARE OF WORLD GDP, 2003

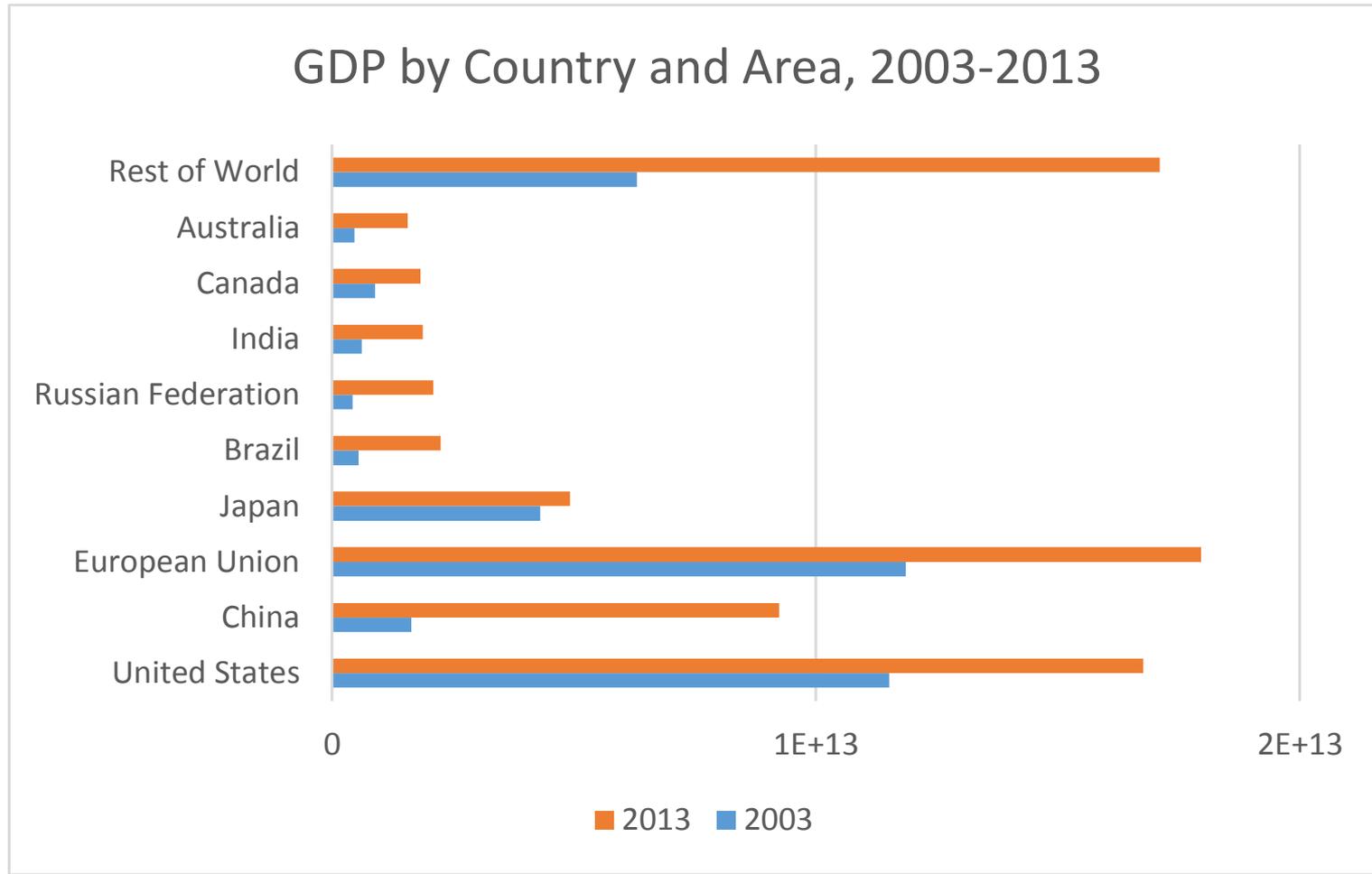


Country Shares of World GDP, 2013

SHARE OF WORLD GDP, 2013



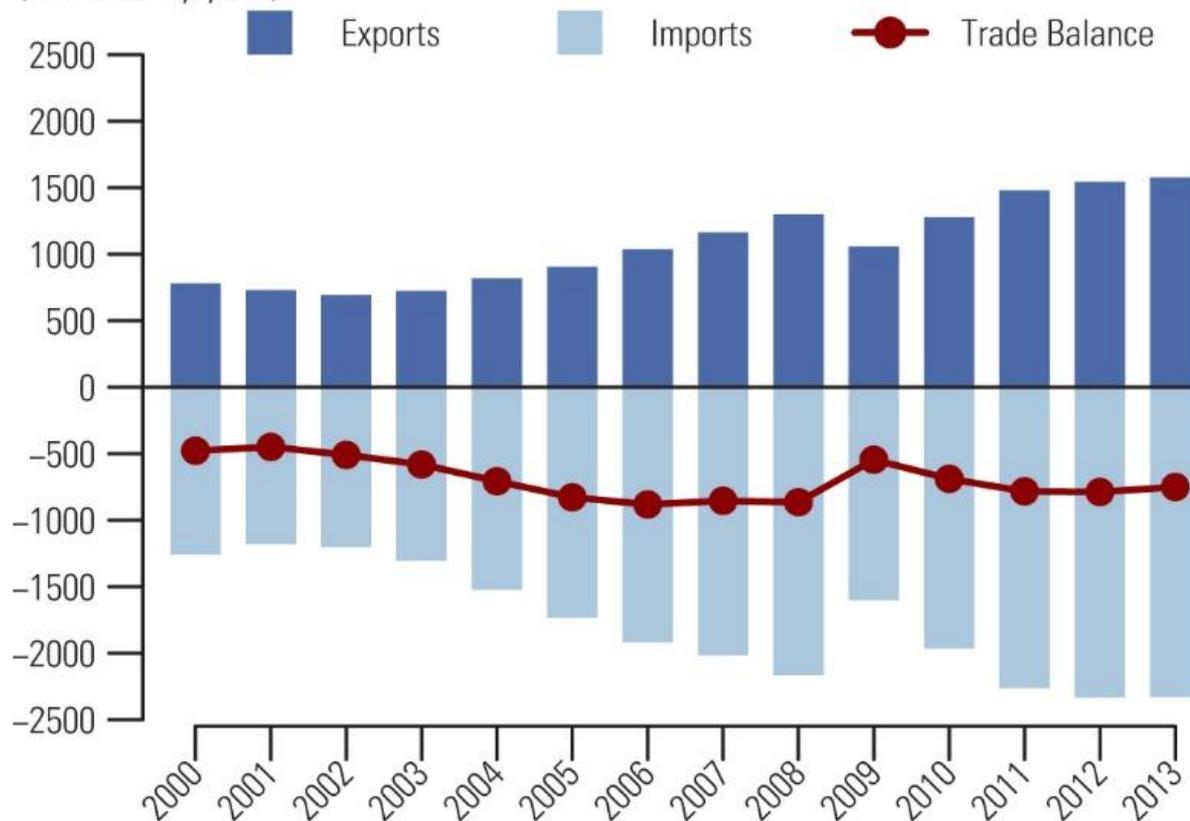
GDP by Country, 2003-2013



United States merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

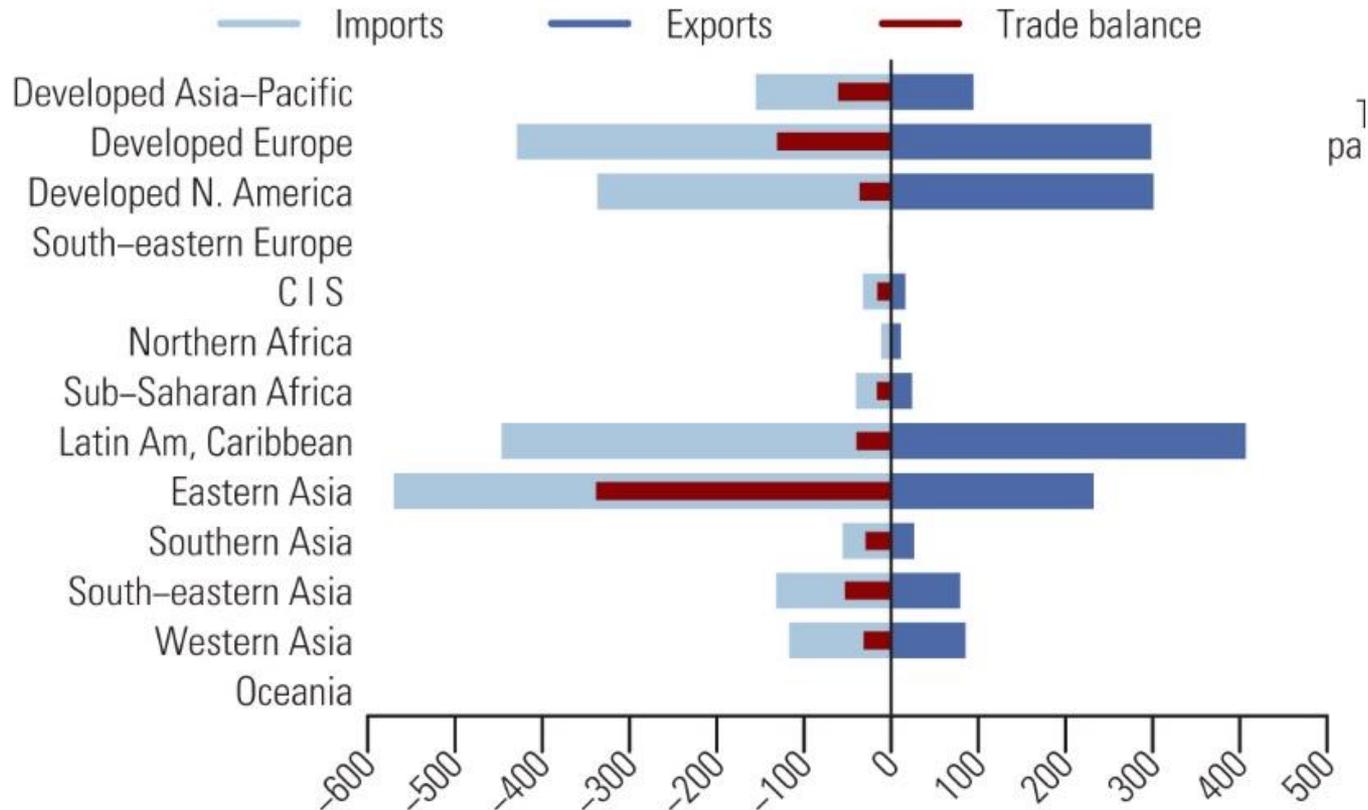
(Bln US\$ by year)



United States merchandise trade by region, 2013 (USD billions)

Graph 4: Merchandise trade balance

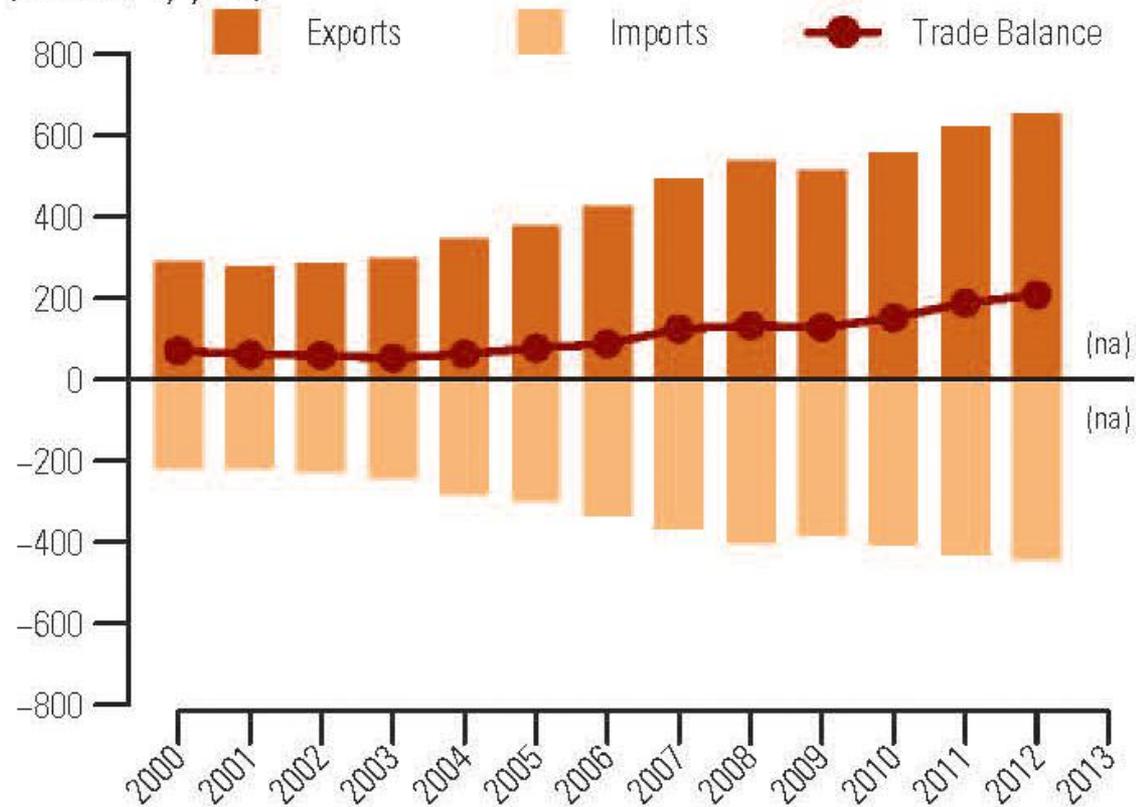
(Bln US\$ by MDG Regions in 2013)



United States services trade, 2000-2013 (USD billions)

Graph 2: Total services trade, by value

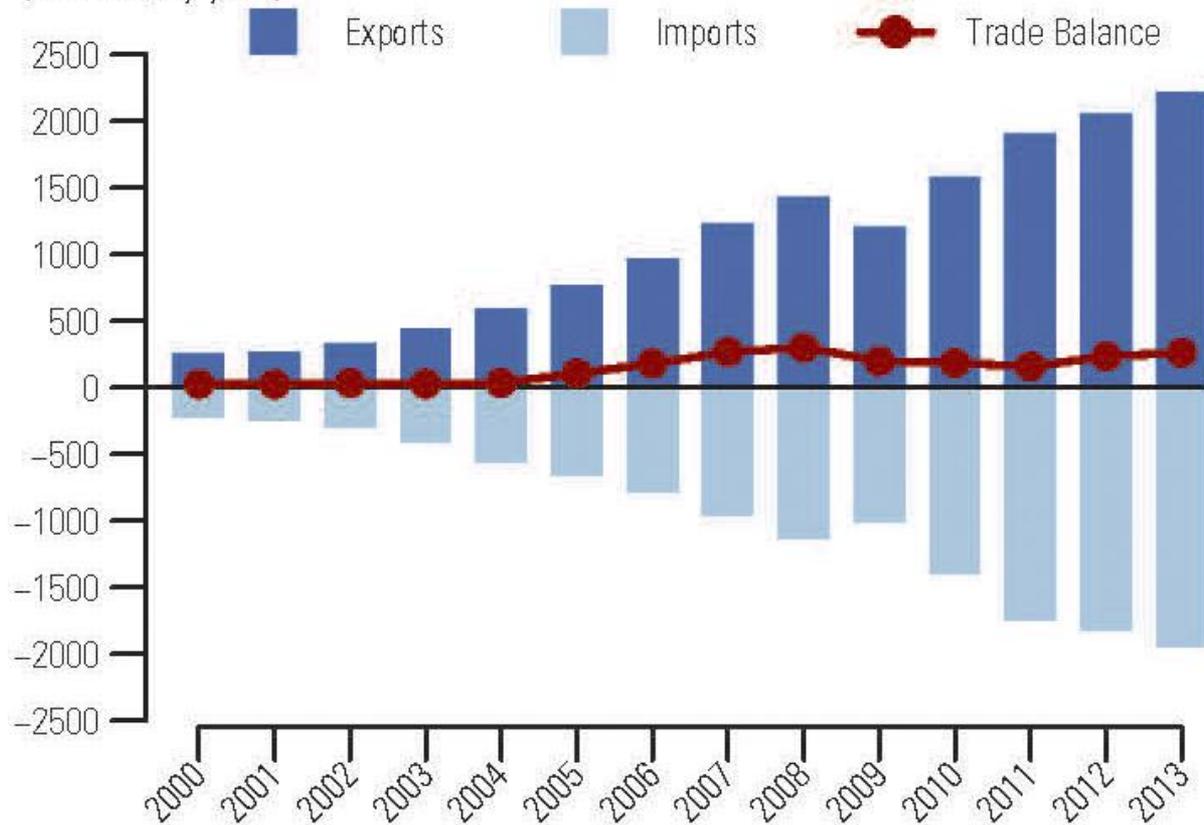
(Bln US\$ by year)



China merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

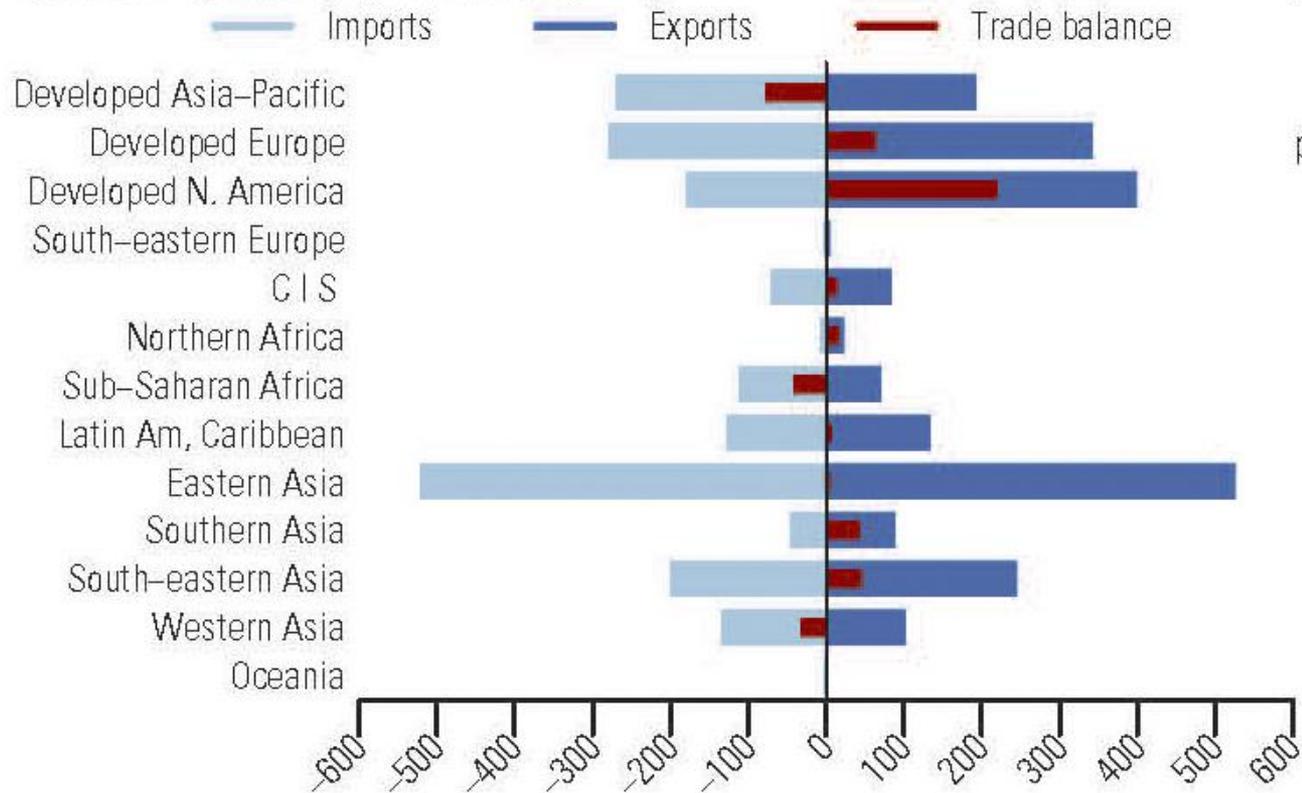
(Bln US\$ by year)



China merchandise trade by region, 2013 (USD billions)

Graph 4: Merchandise trade balance

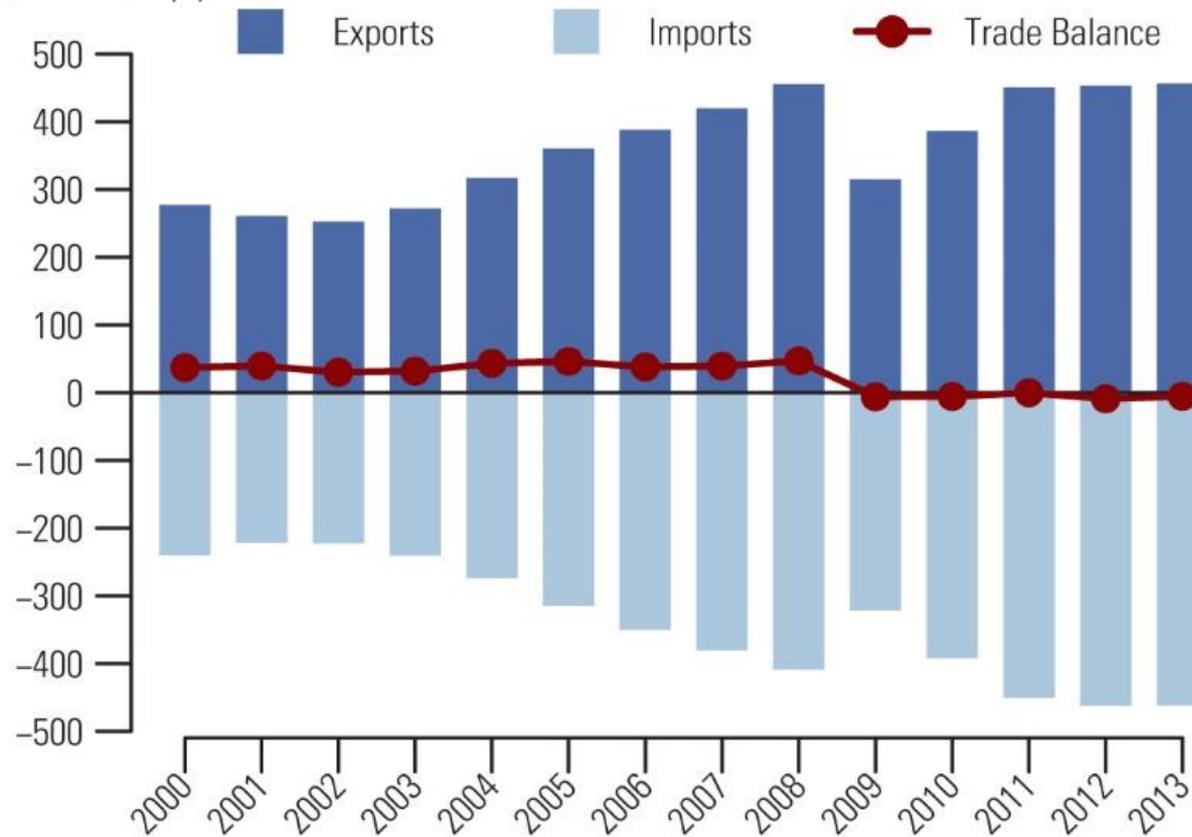
(Bln US\$ by MDG Regions in 2013)



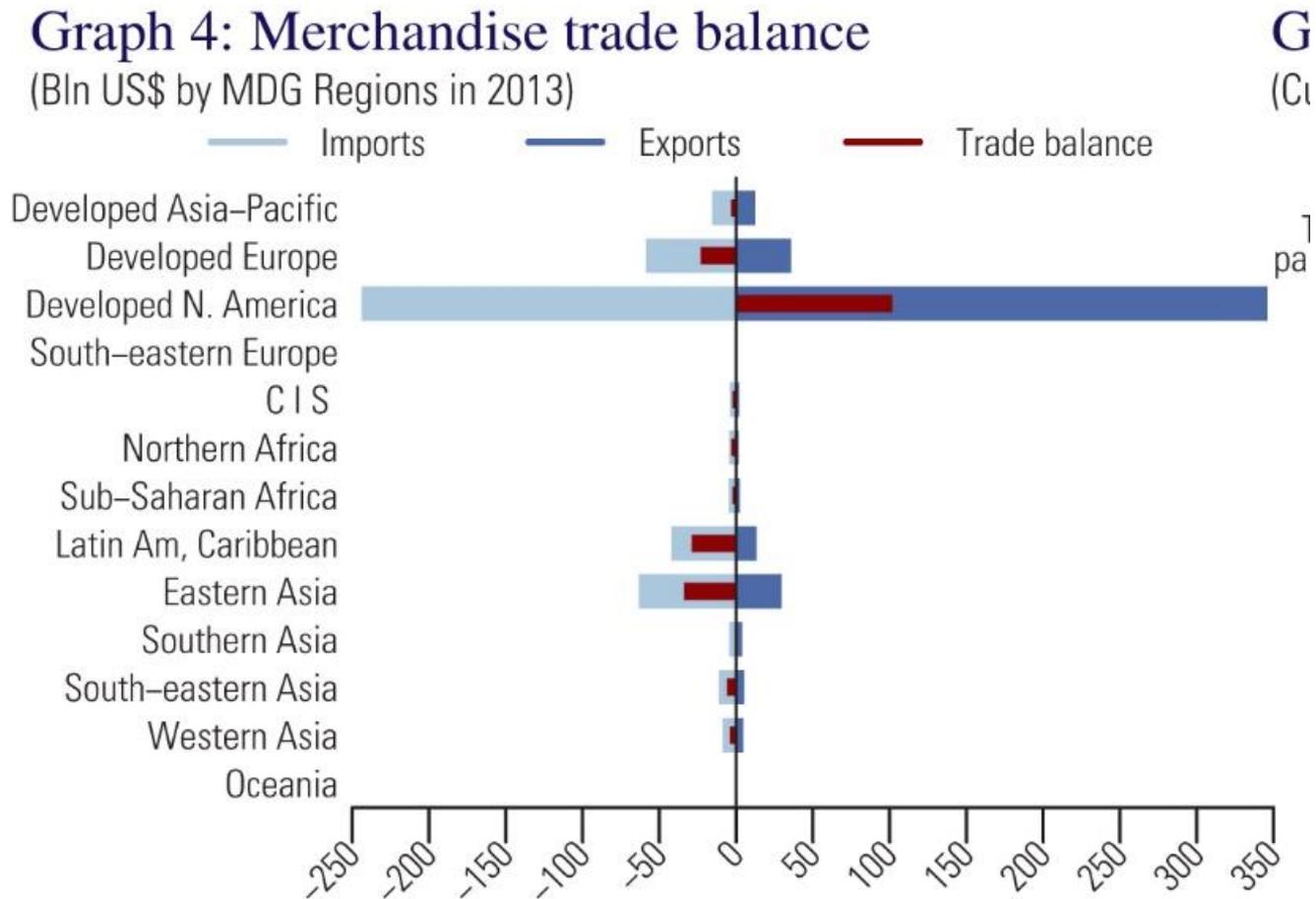
Canada merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

(Bln US\$ by year)

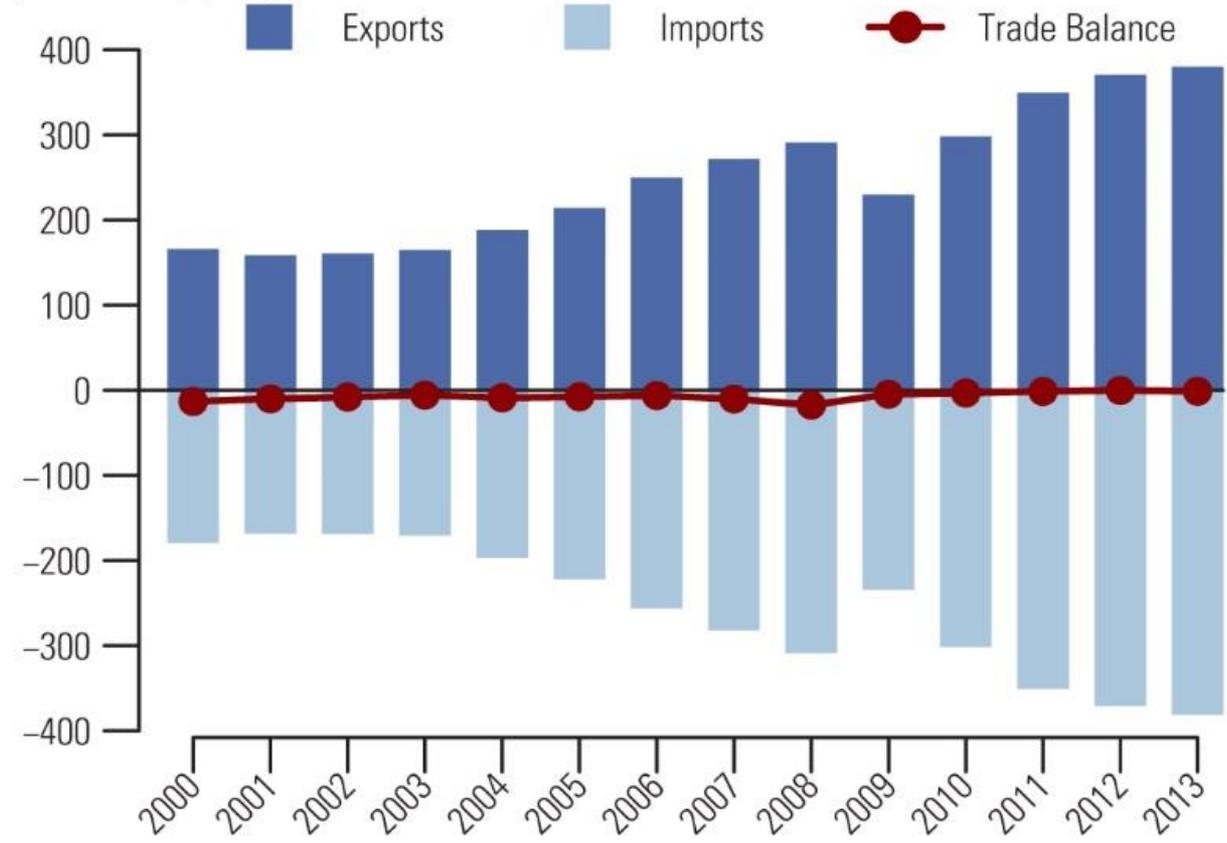


Canada merchandise trade by region, 2013 (USD billions)

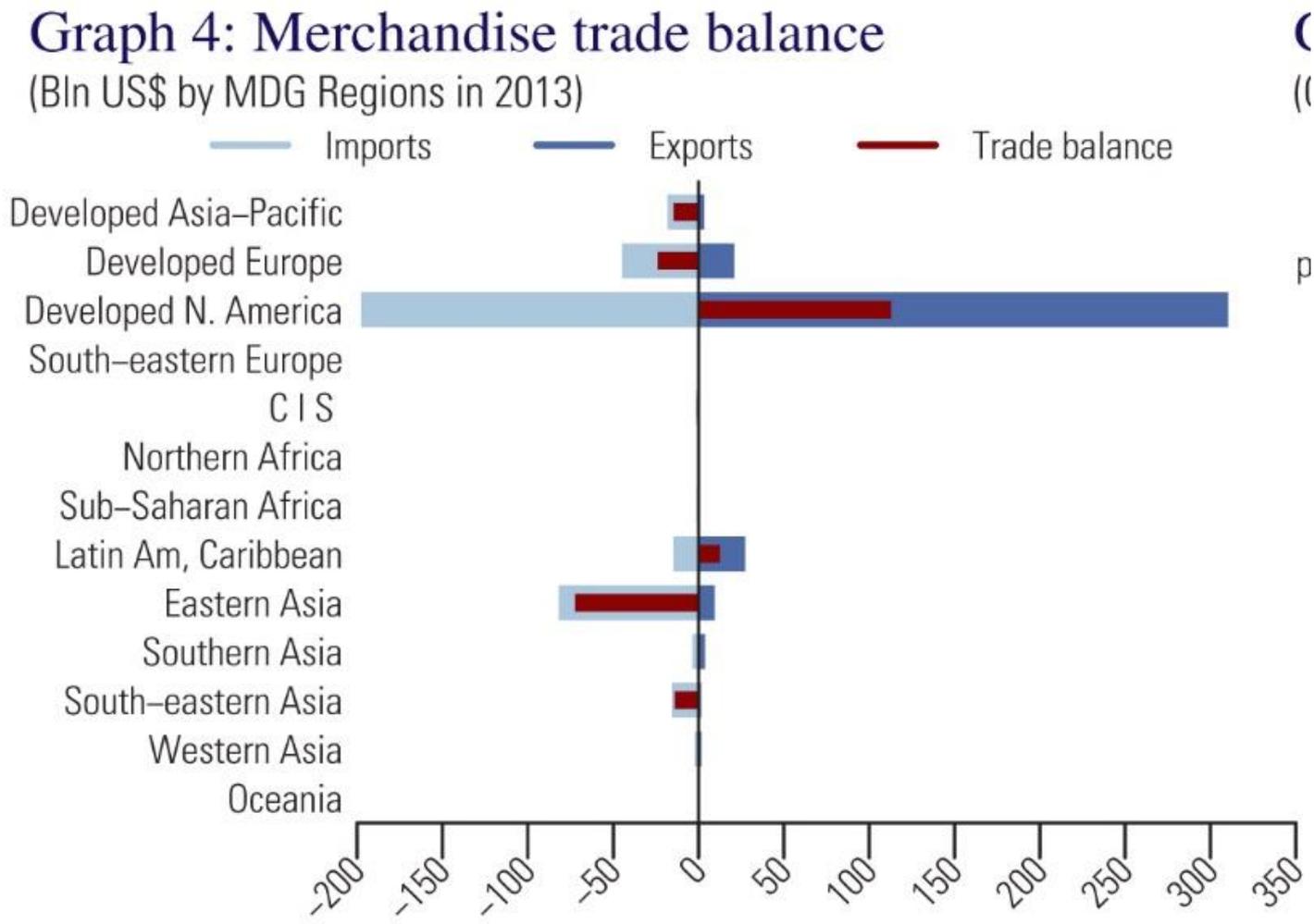


Mexico merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value
(Bln US\$ by year)



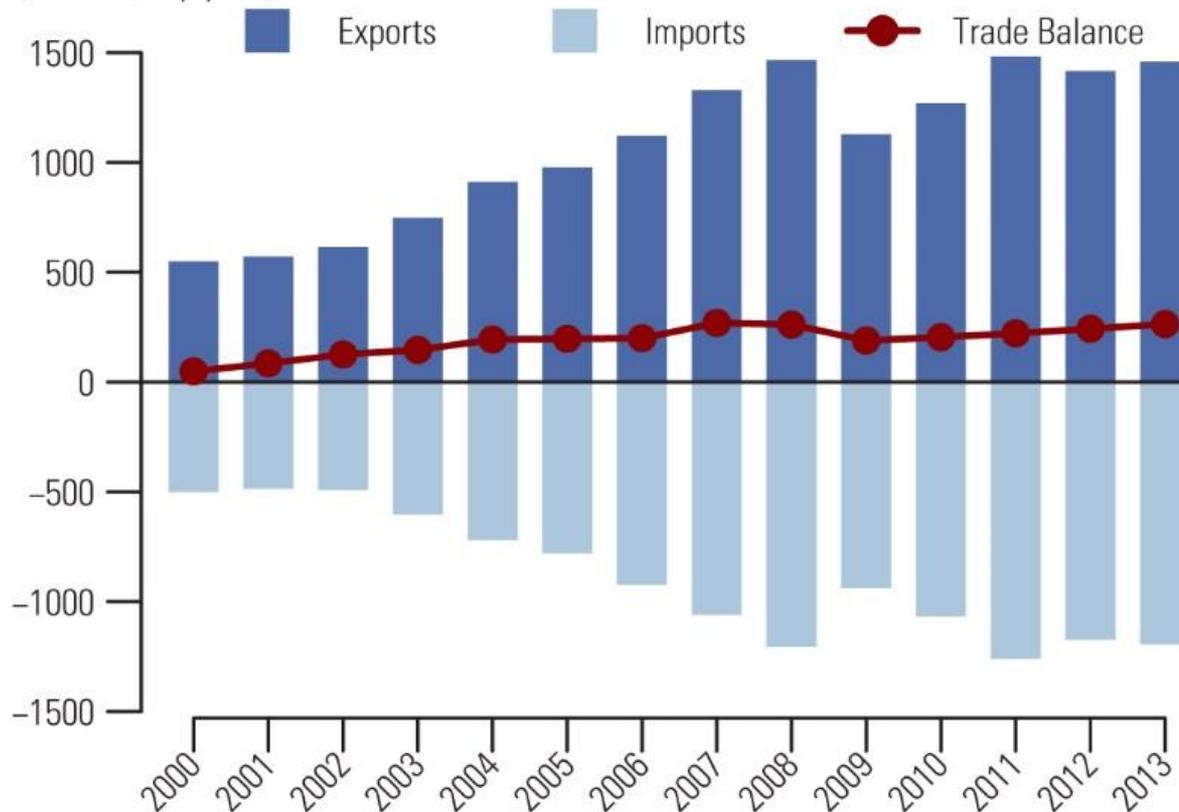
Mexico merchandise trade by region, 2013 (USD billions)



Germany merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

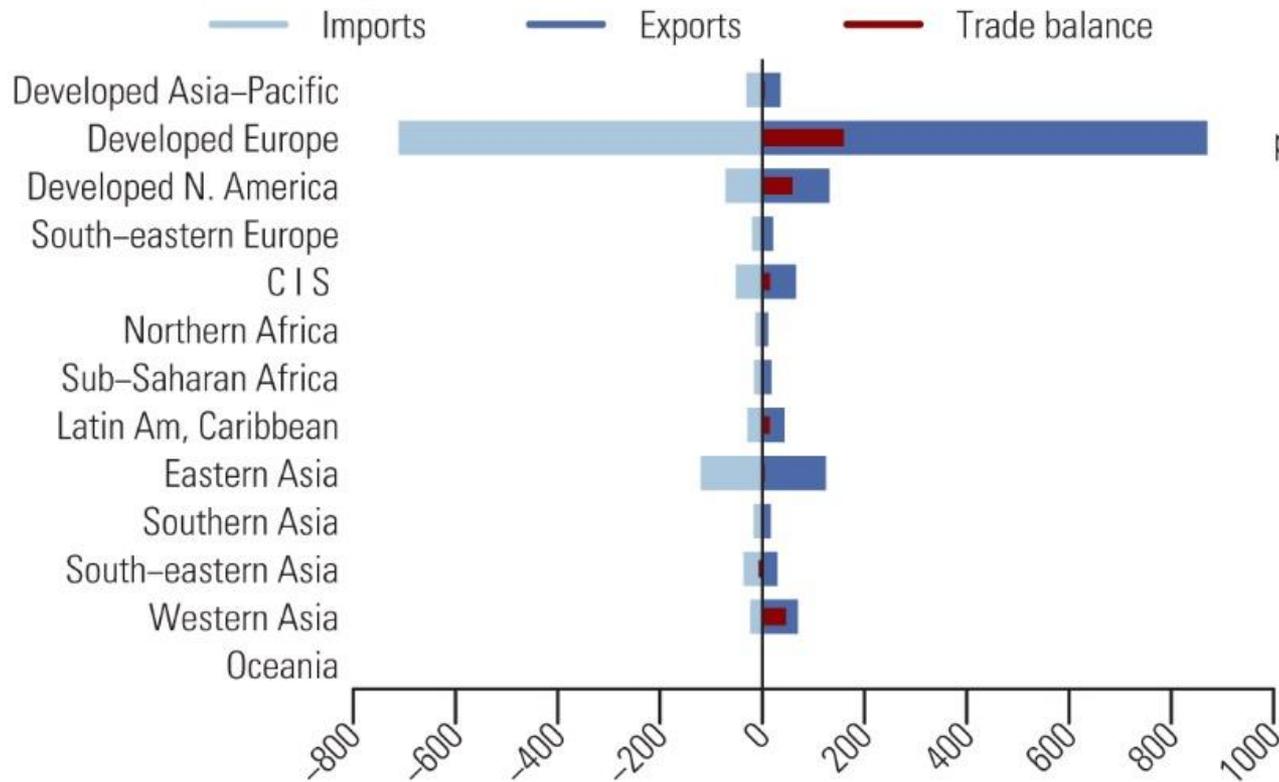
(Bln US\$ by year)



Germany merchandise trade by region, 2013 (USD billions)

Graph 4: Merchandise trade balance

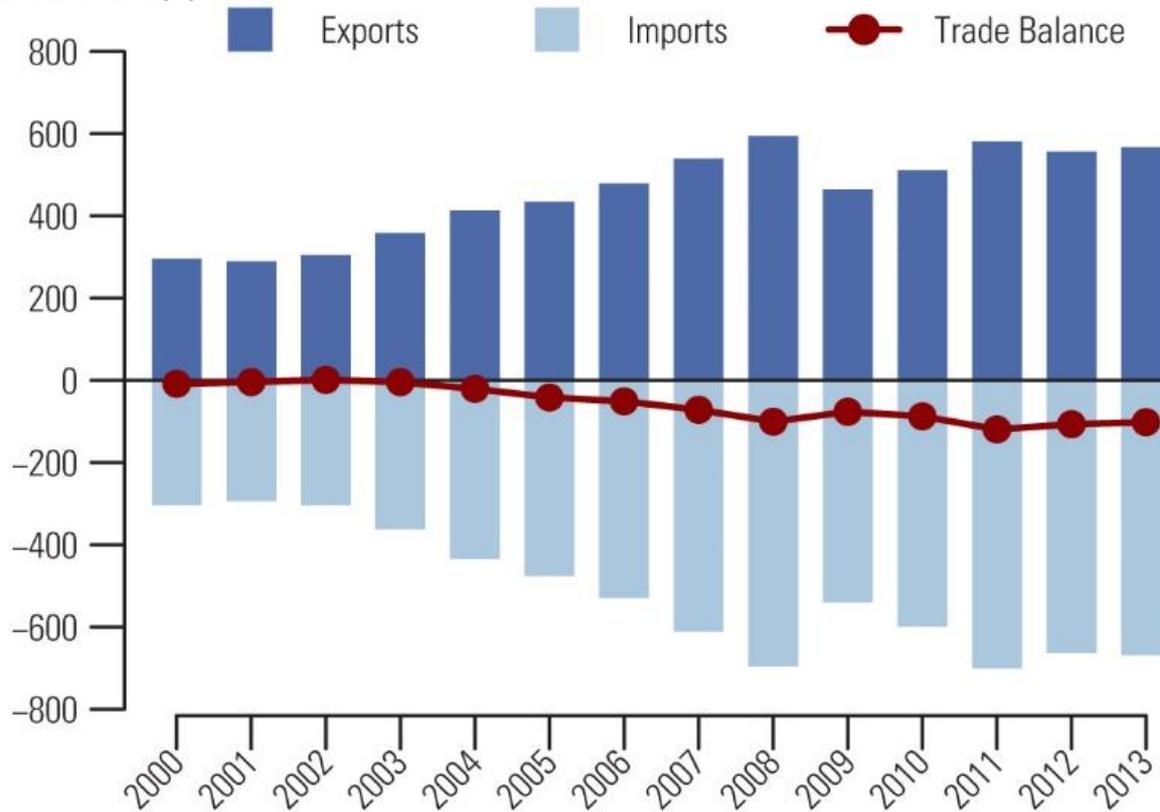
(Bln US\$ by MDG Regions in 2013)



France merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

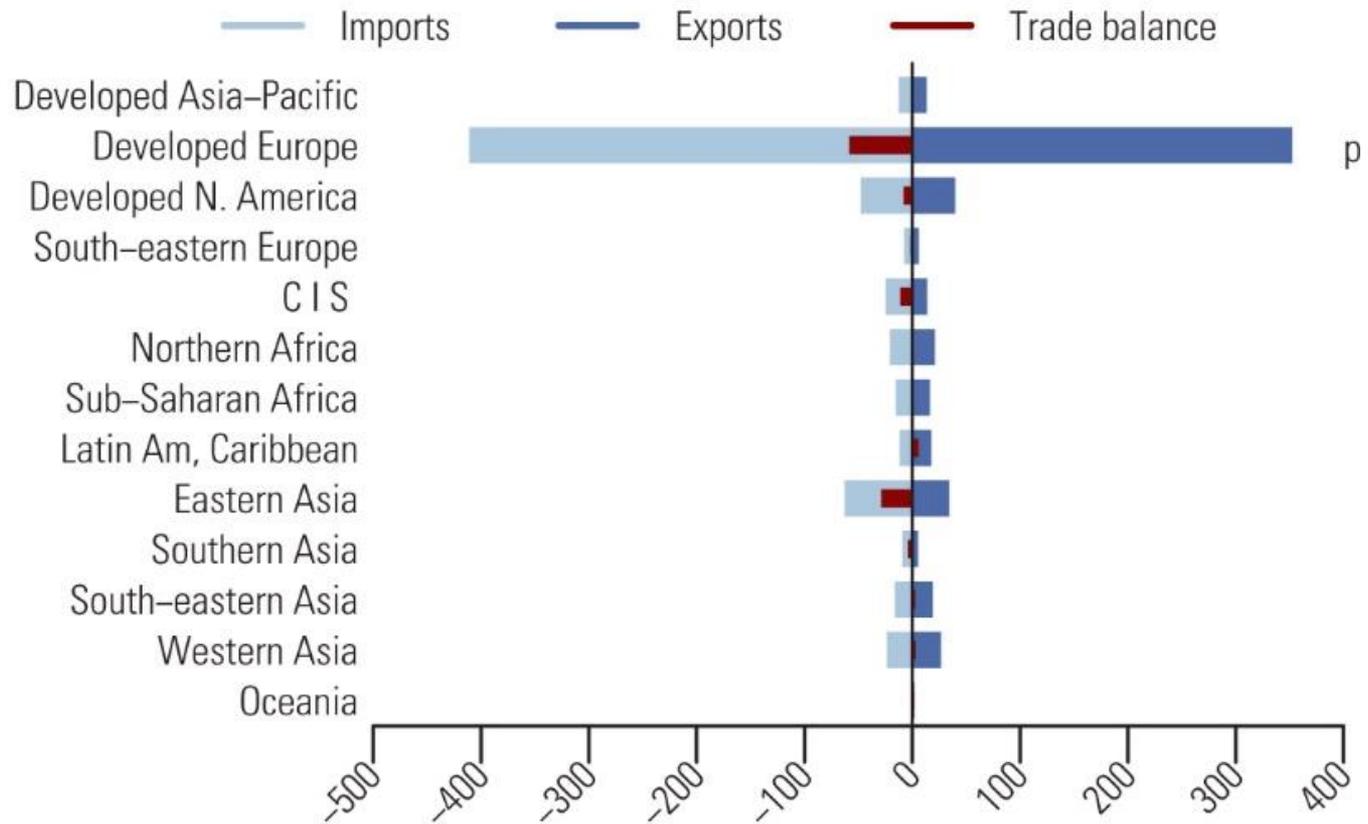
(Bln US\$ by year)



France merchandise trade by region, 2013 (USD billions)

Graph 4: Merchandise trade balance

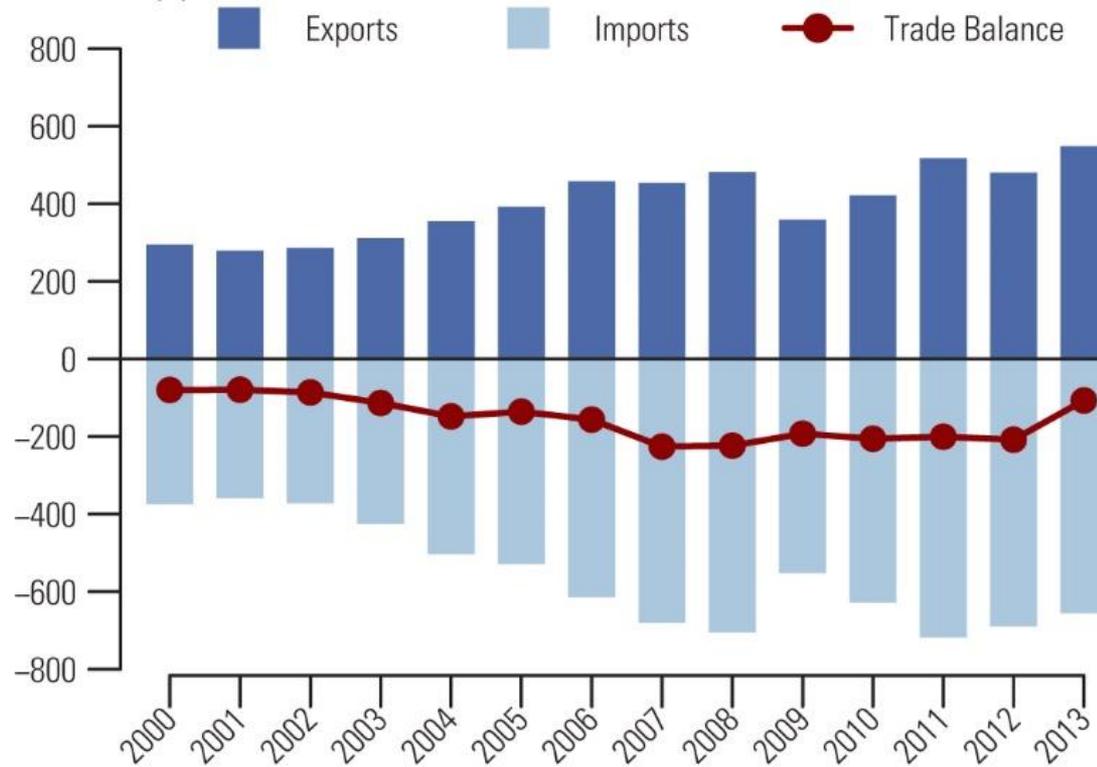
(Bln US\$ by MDG Regions in 2013)



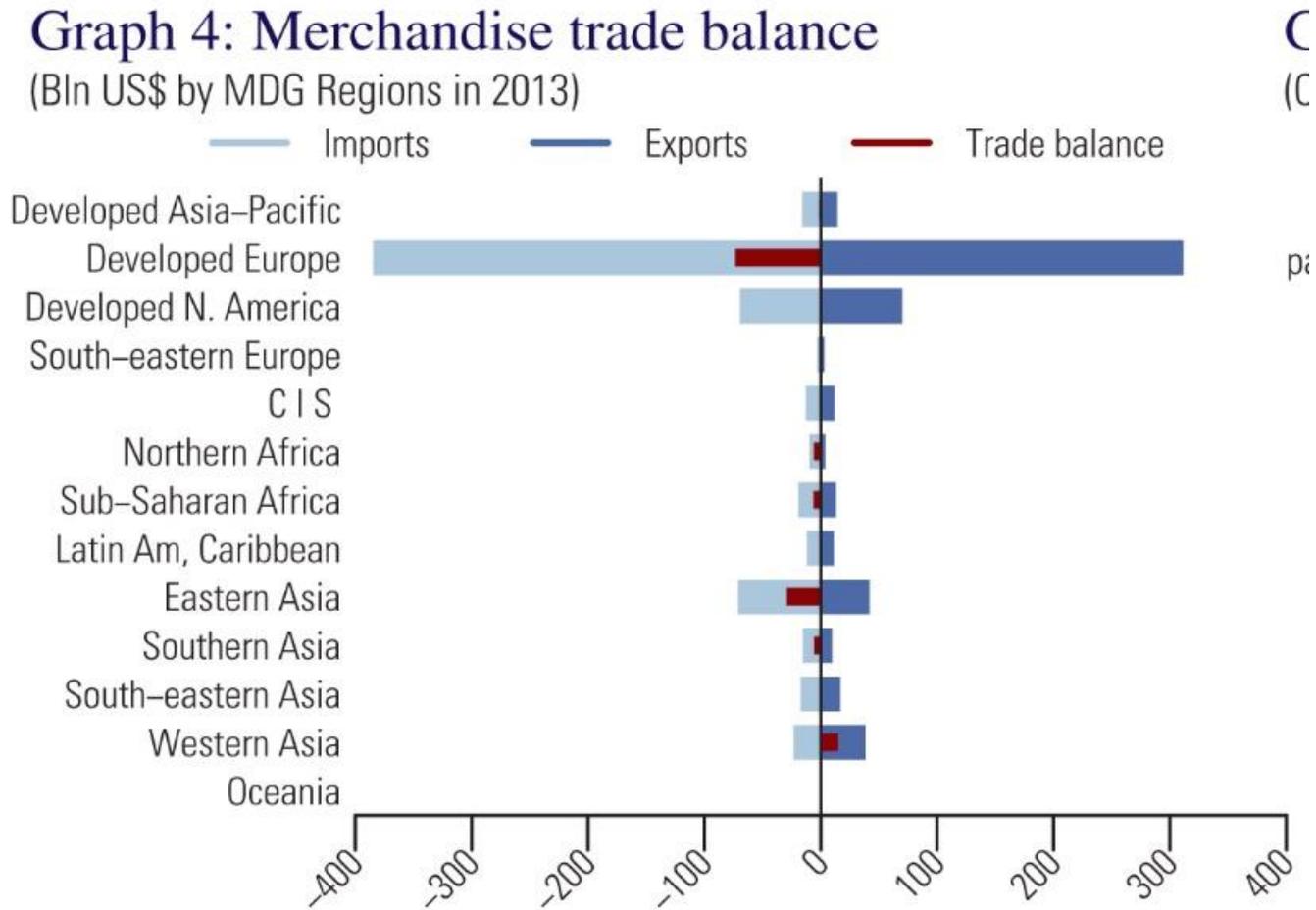
United Kingdom merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

(Bln US\$ by year)



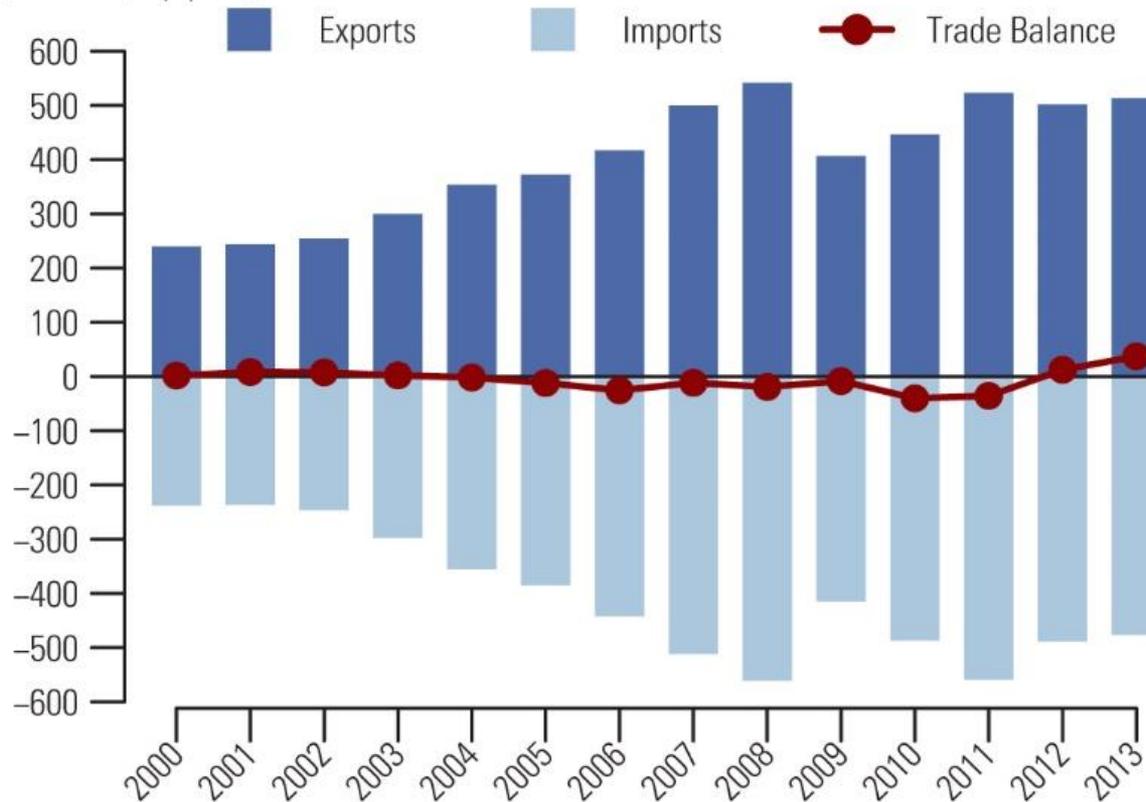
United Kingdom merchandise trade by region, 2013 (USD billions)



Italy merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

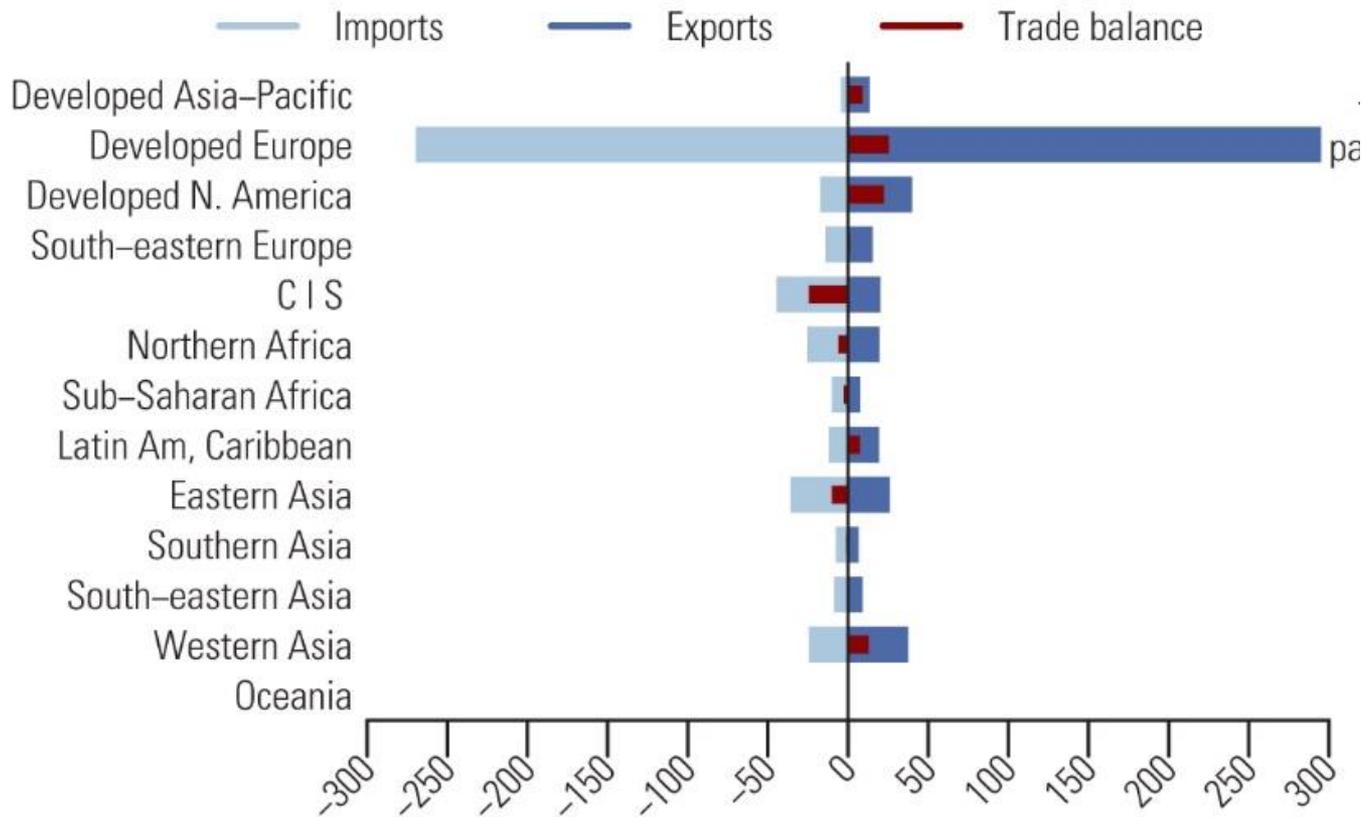
(Bln US\$ by year)



Italy merchandise trade by region, 2013 (USD billions)

Graph 4: Merchandise trade balance

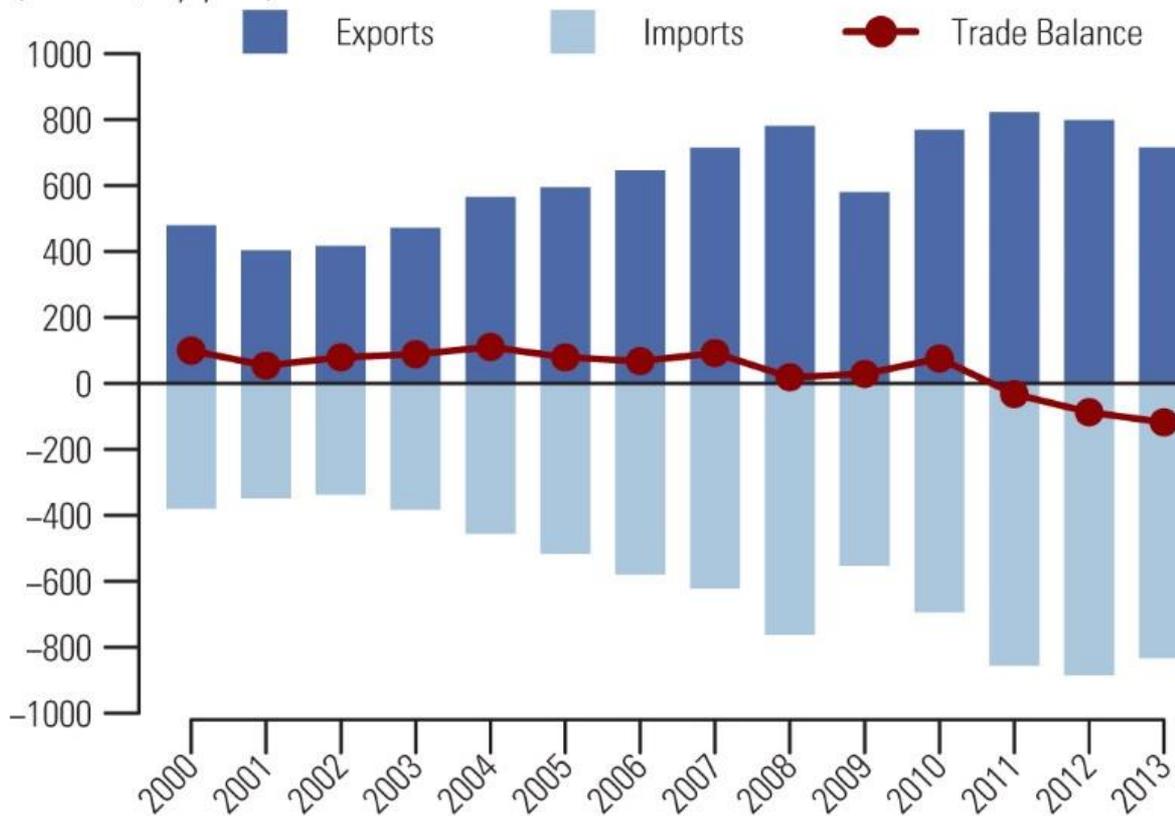
(Bln US\$ by MDG Regions in 2013)



Japan merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

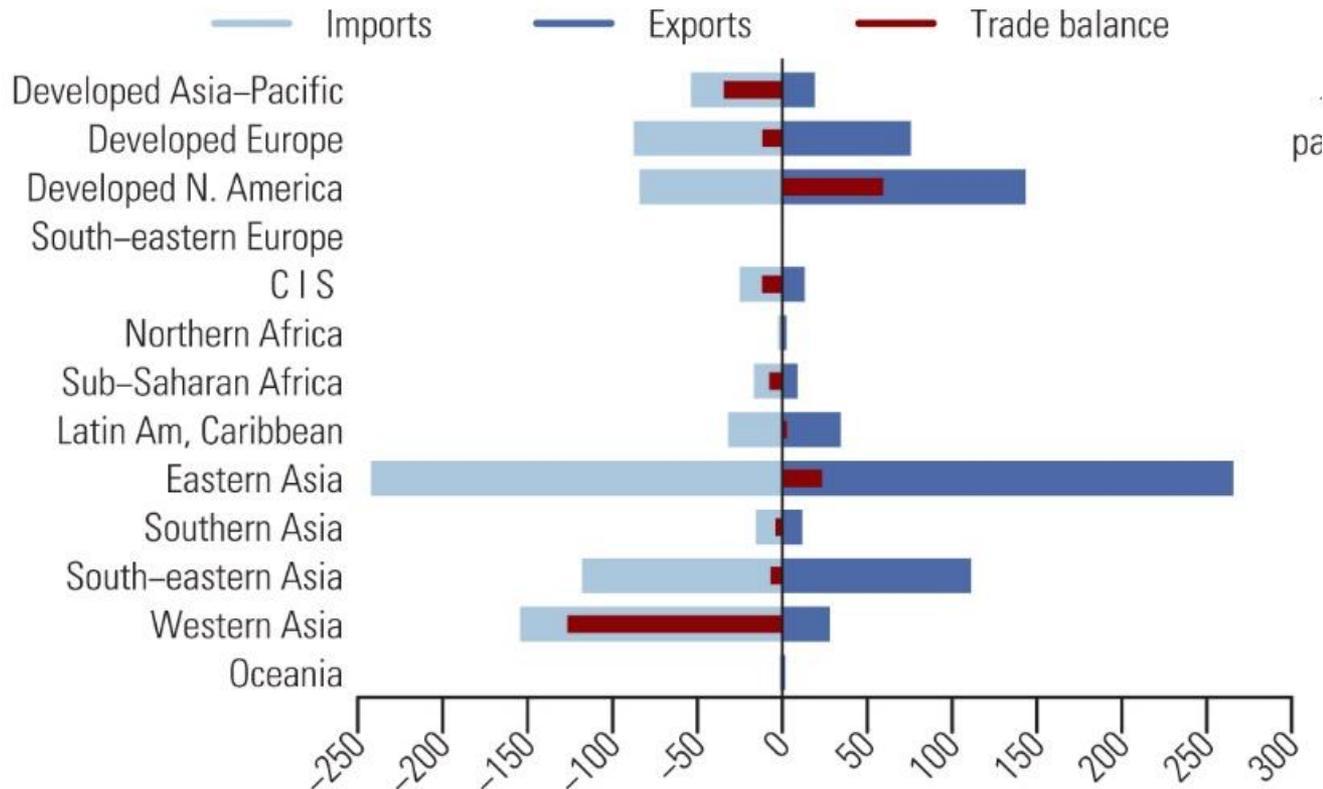
(Bln US\$ by year)



Japan merchandise trade by region, 2013 (USD billions)

Graph 4: Merchandise trade balance

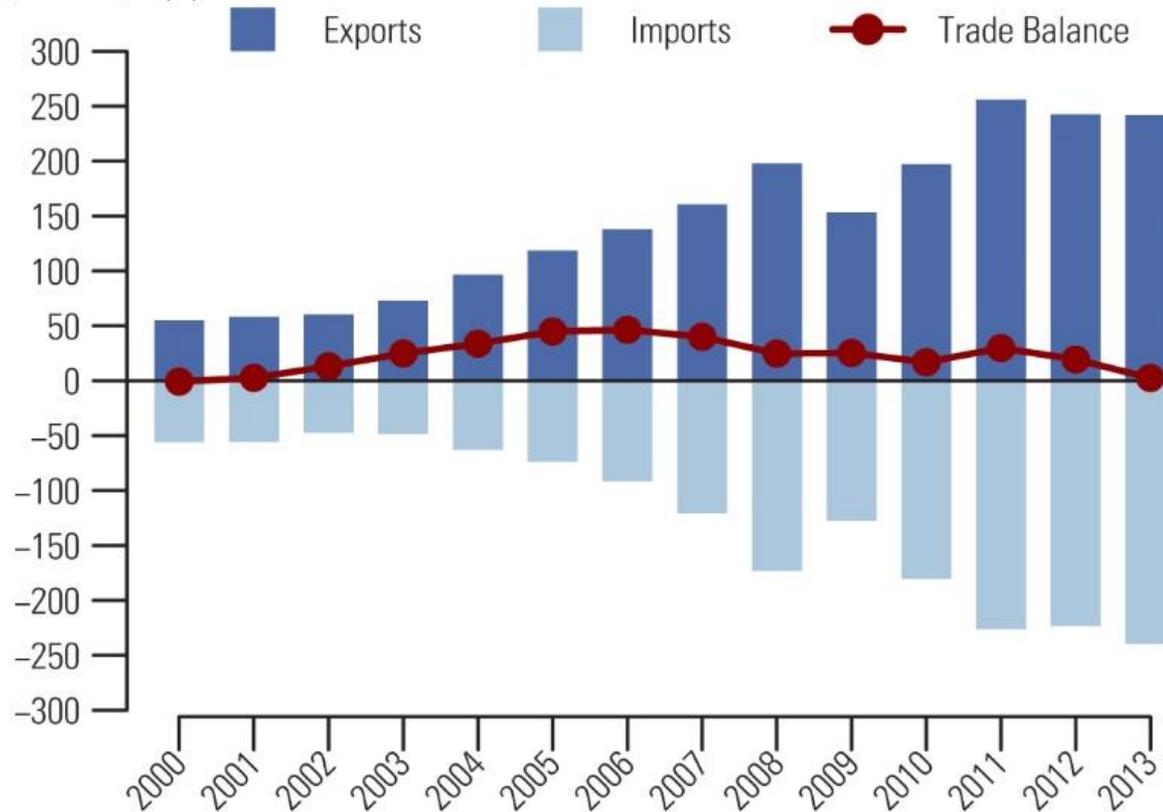
(Bln US\$ by MDG Regions in 2013)



Brazil merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

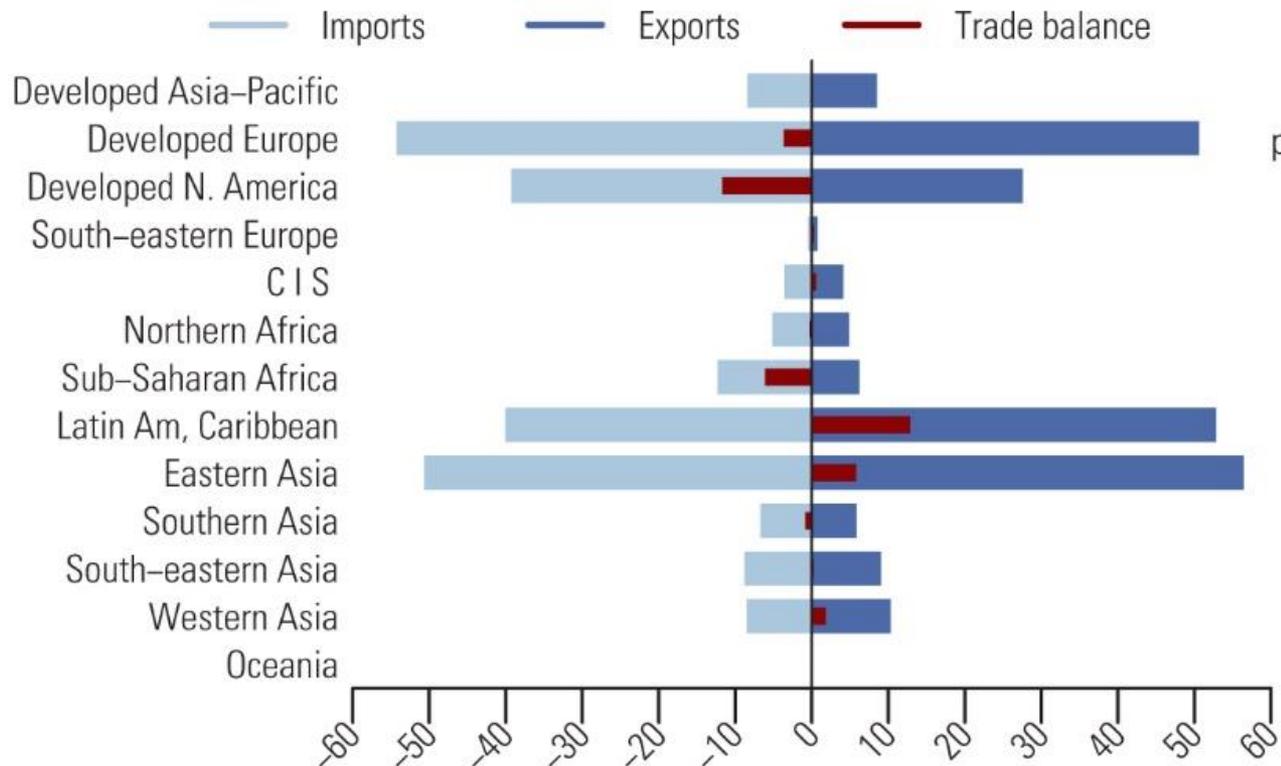
(Bln US\$ by year)



Brazil merchandise trade by region, 2013 (USD billions)

Graph 4: Merchandise trade balance

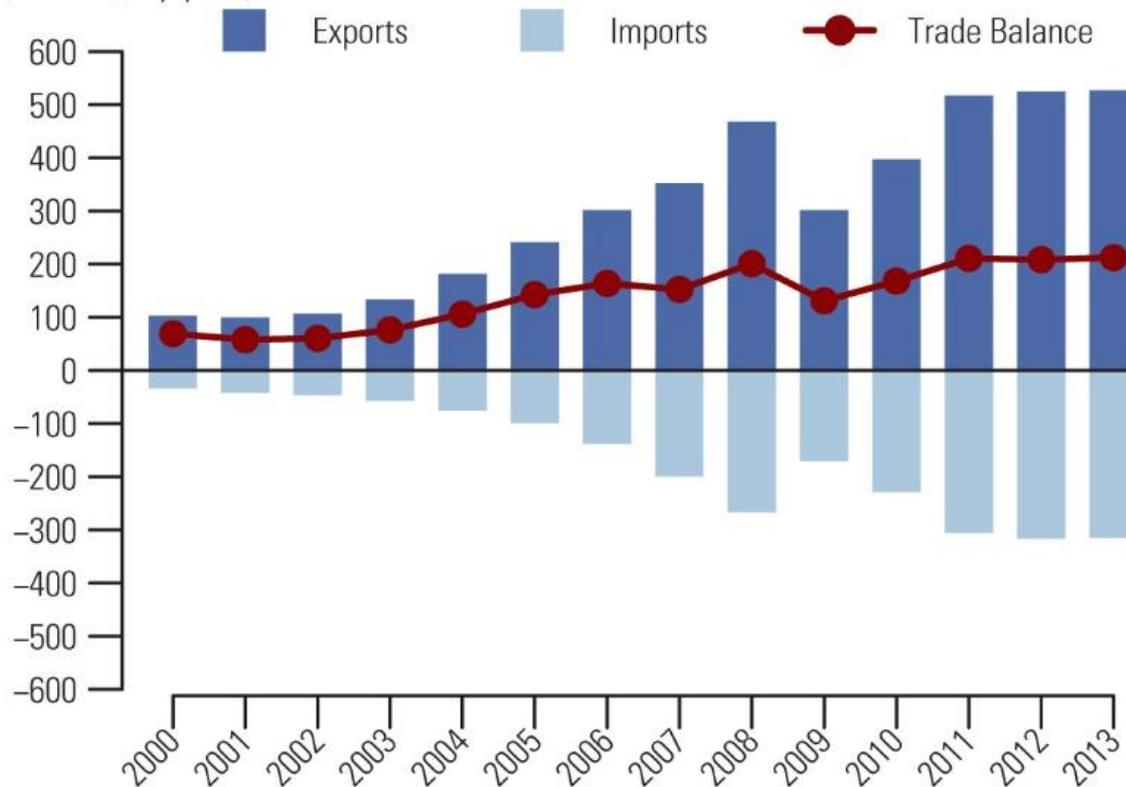
(Bln US\$ by MDG Regions in 2013)



Russian Federation, merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

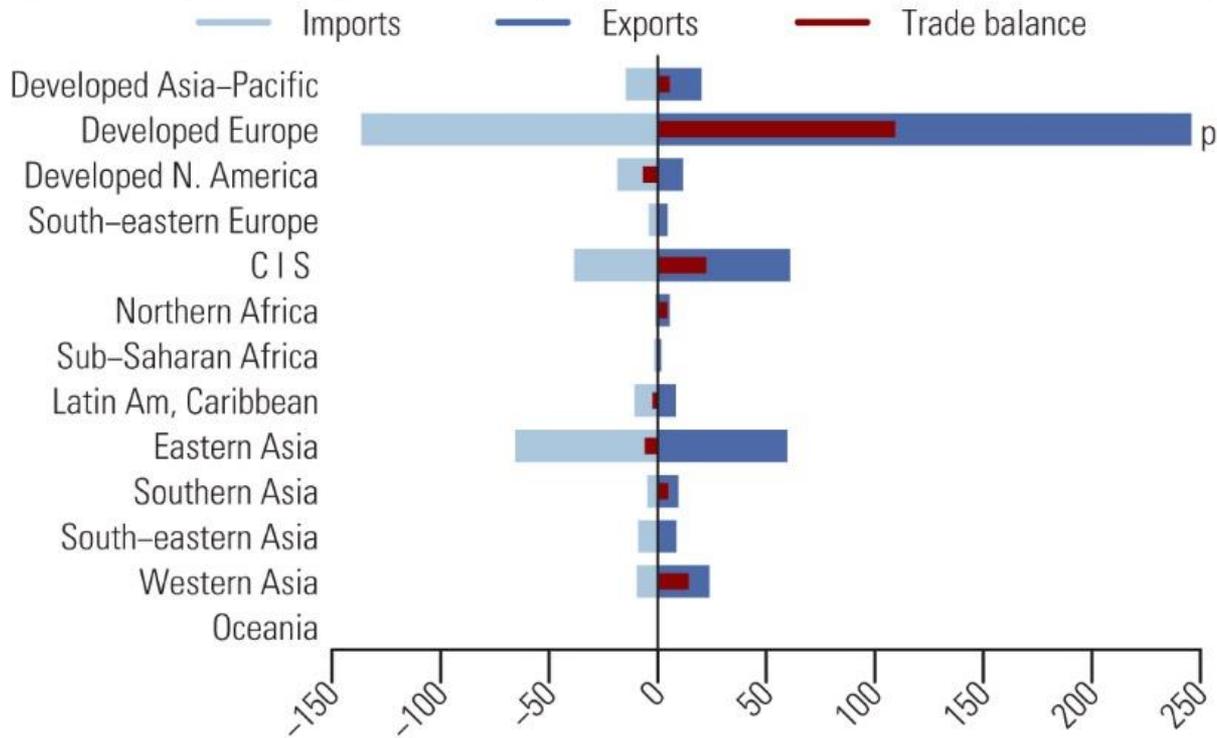
(Bln US\$ by year)



Russian Federation merchandise trade by region (USD billions)

Graph 4: Merchandise trade balance

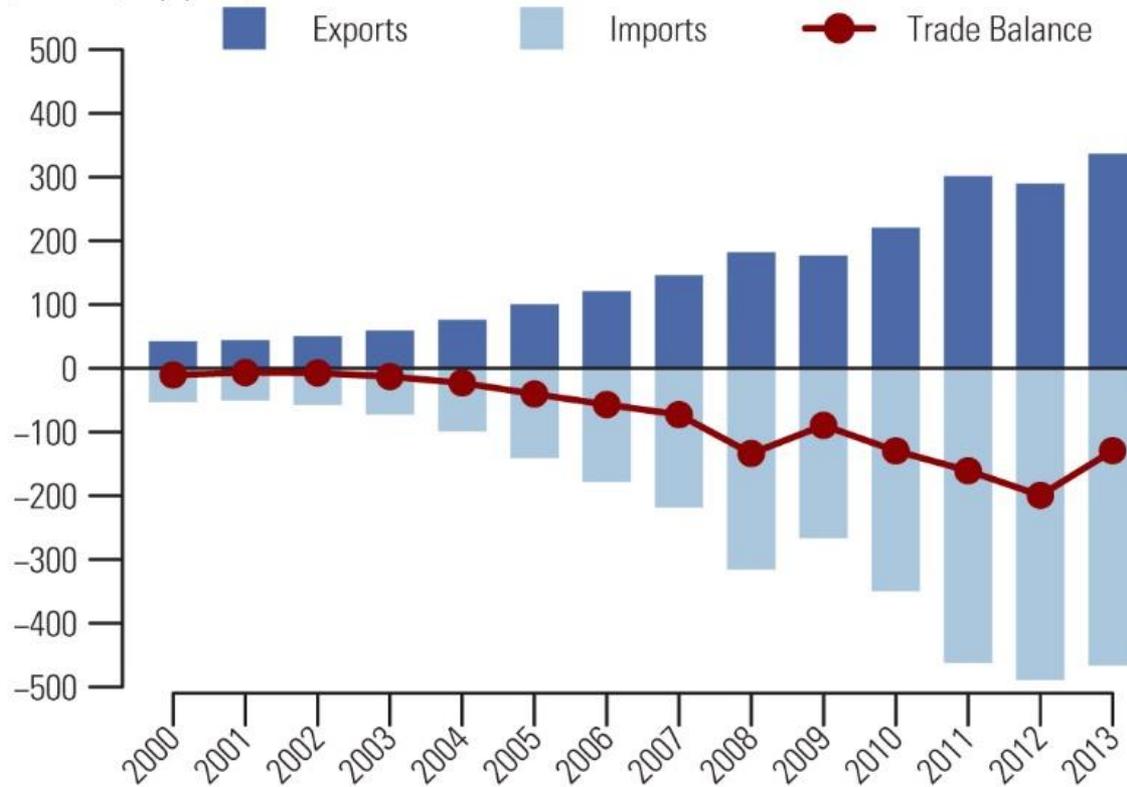
(Bln US\$ by MDG Regions in 2013)



India merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

(Bln US\$ by year)

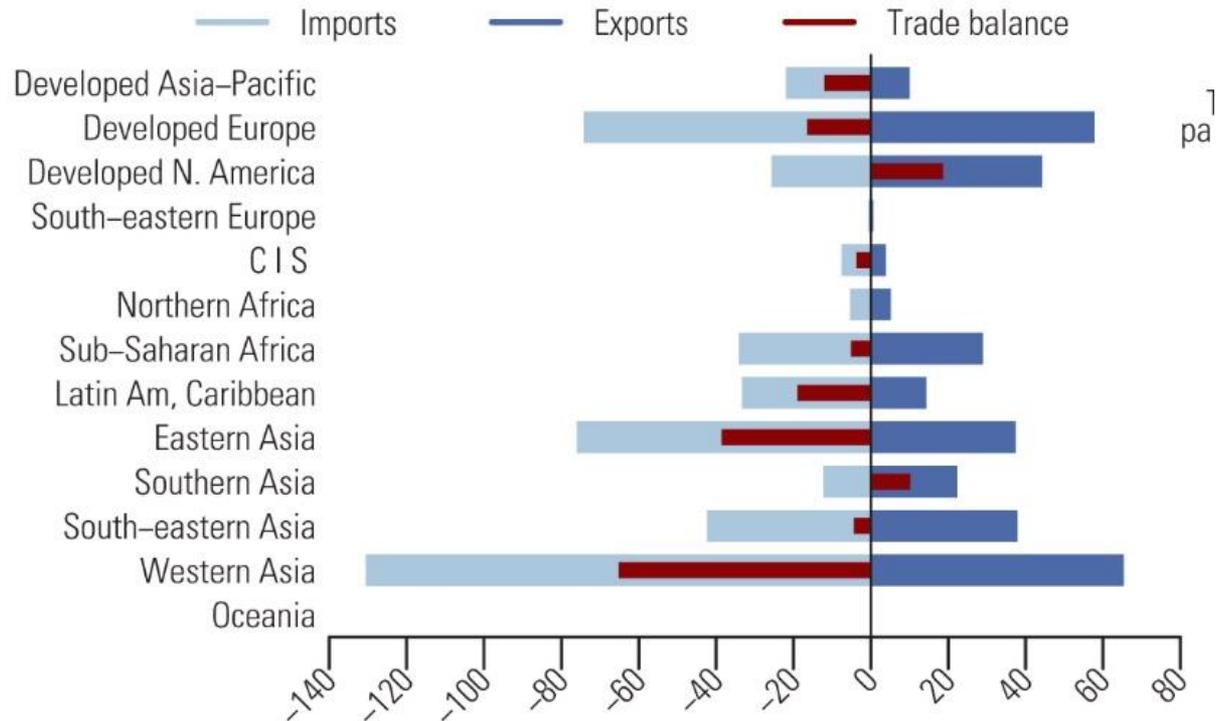


India merchandise trade by region, 2013 (USD billions)

Graph 4: Merchandise trade balance

(Bln US\$ by MDG Regions in 2013)

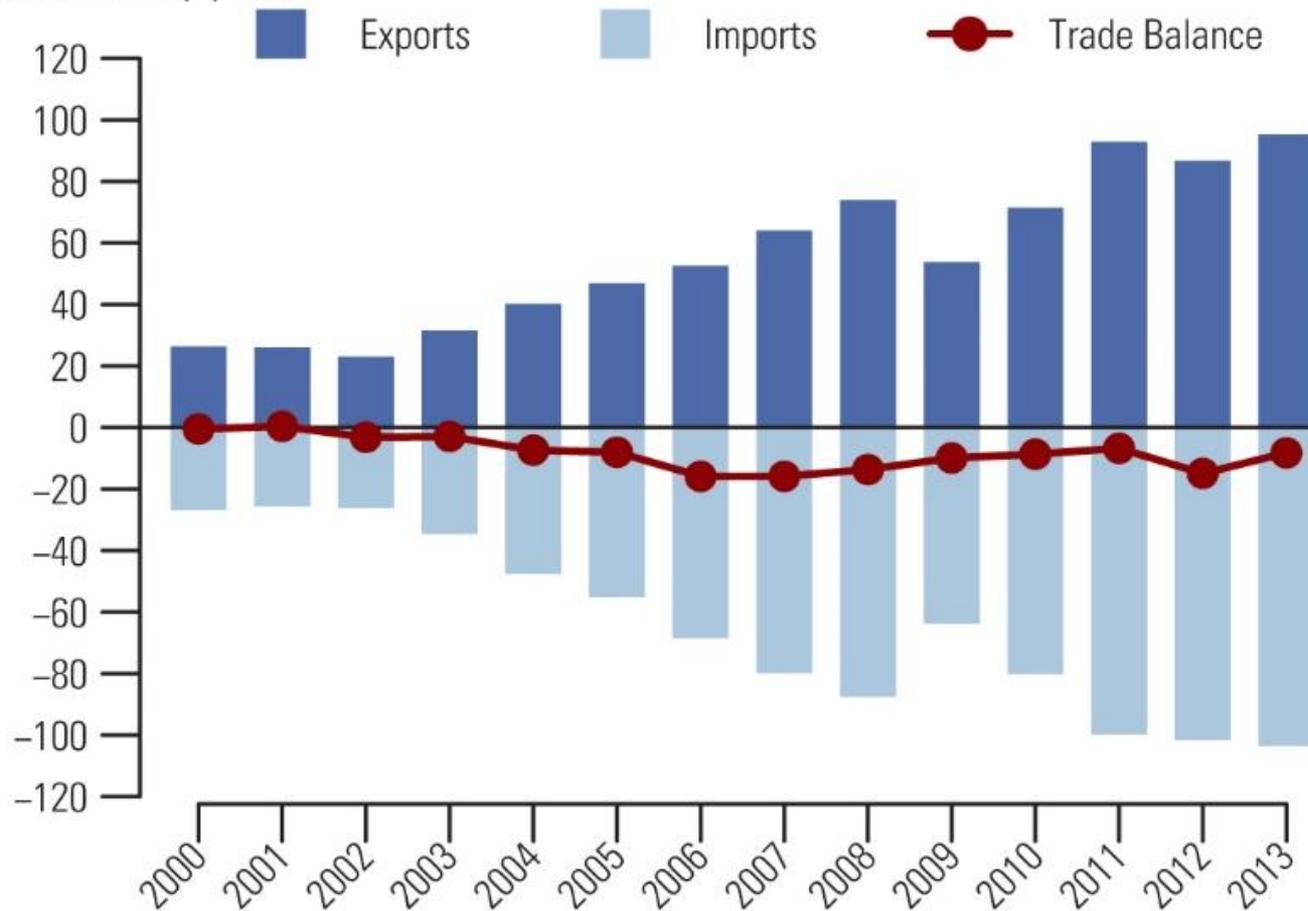
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South Africa merchandise trade, 2000-2013 (USD billions)

Graph 1: Total merchandise trade, by value

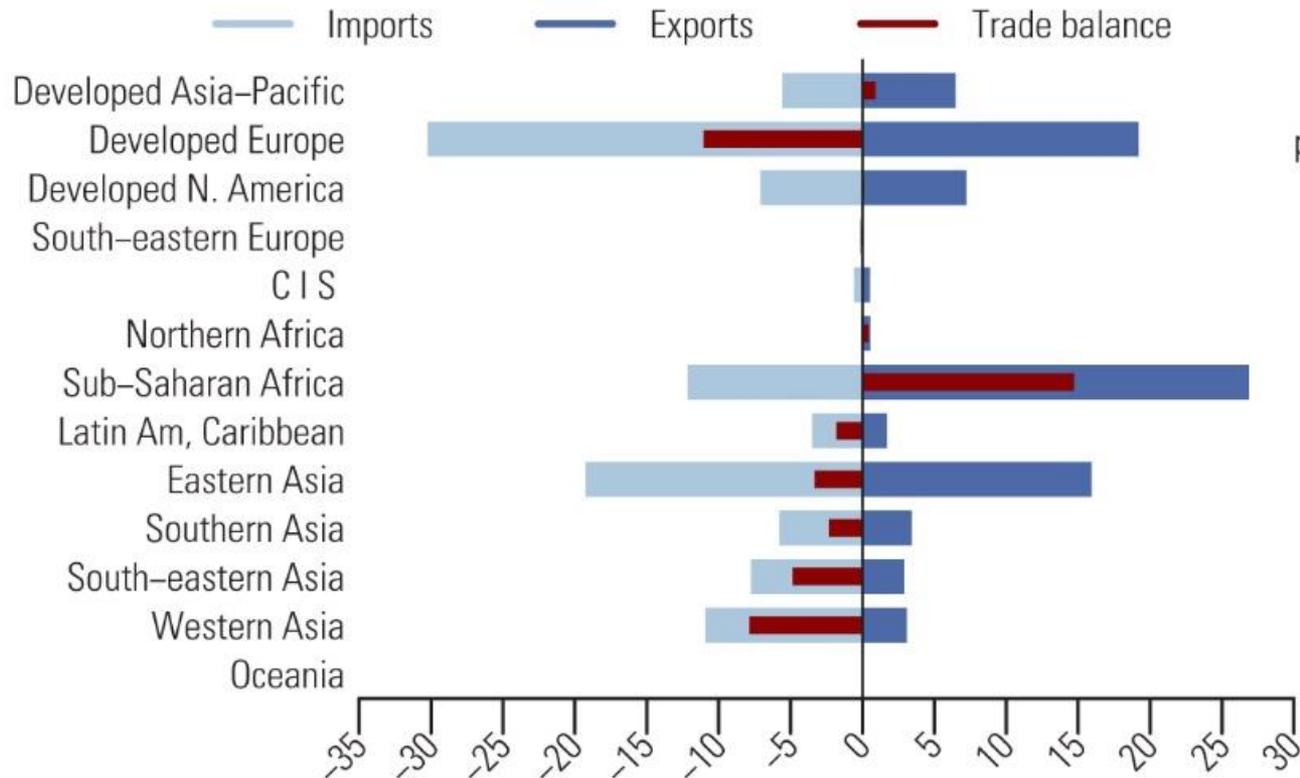
(Bln US\$ by year)



South Africa merchandise trade by region, 2013 (USD billions)

Graph 4: Merchandise trade balance

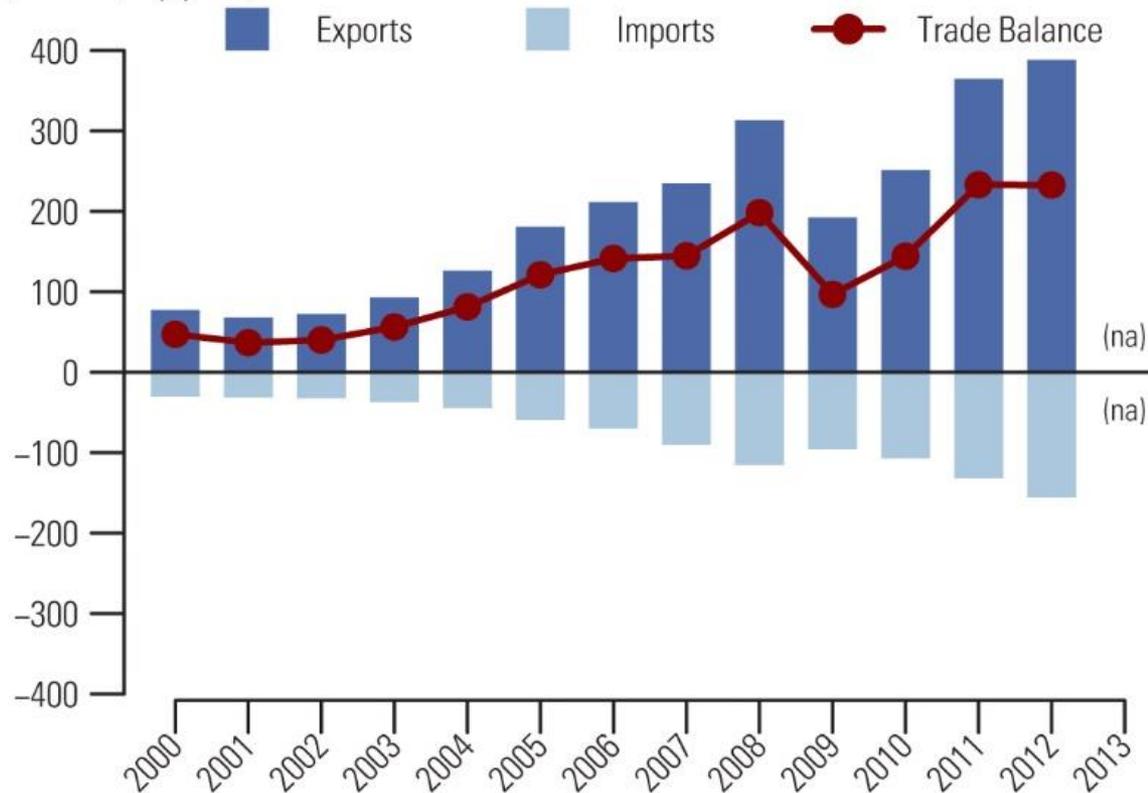
(Bln US\$ by MDG Regions in 2013)



Saudi Arabia merchandise trade, 2000-2012 (USD billions)

Graph 1: Total merchandise trade, by value

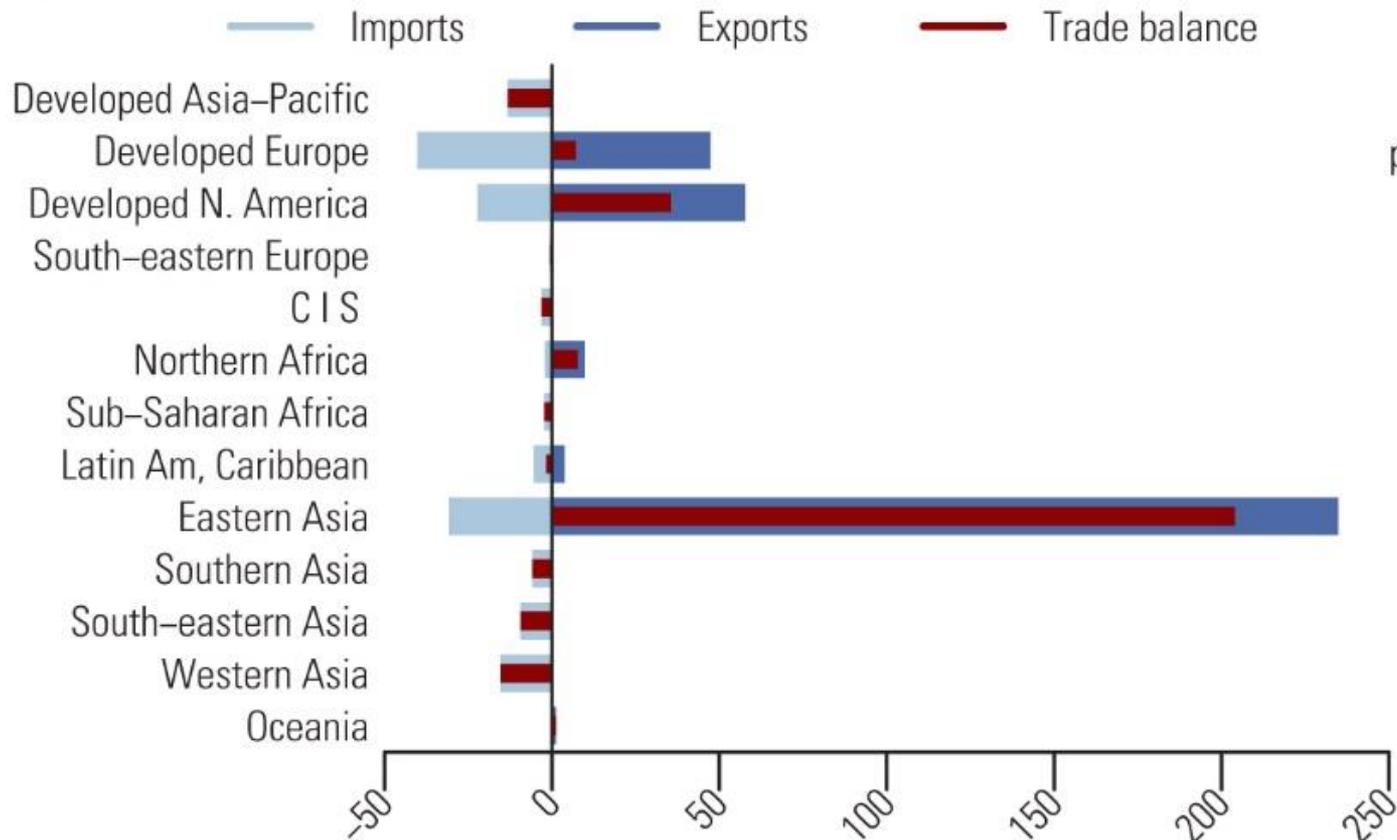
(Bln US\$ by year)



Saudi Arabia merchandise trade by region, 2012 (USD billions)

Graph 4: Merchandise trade balance

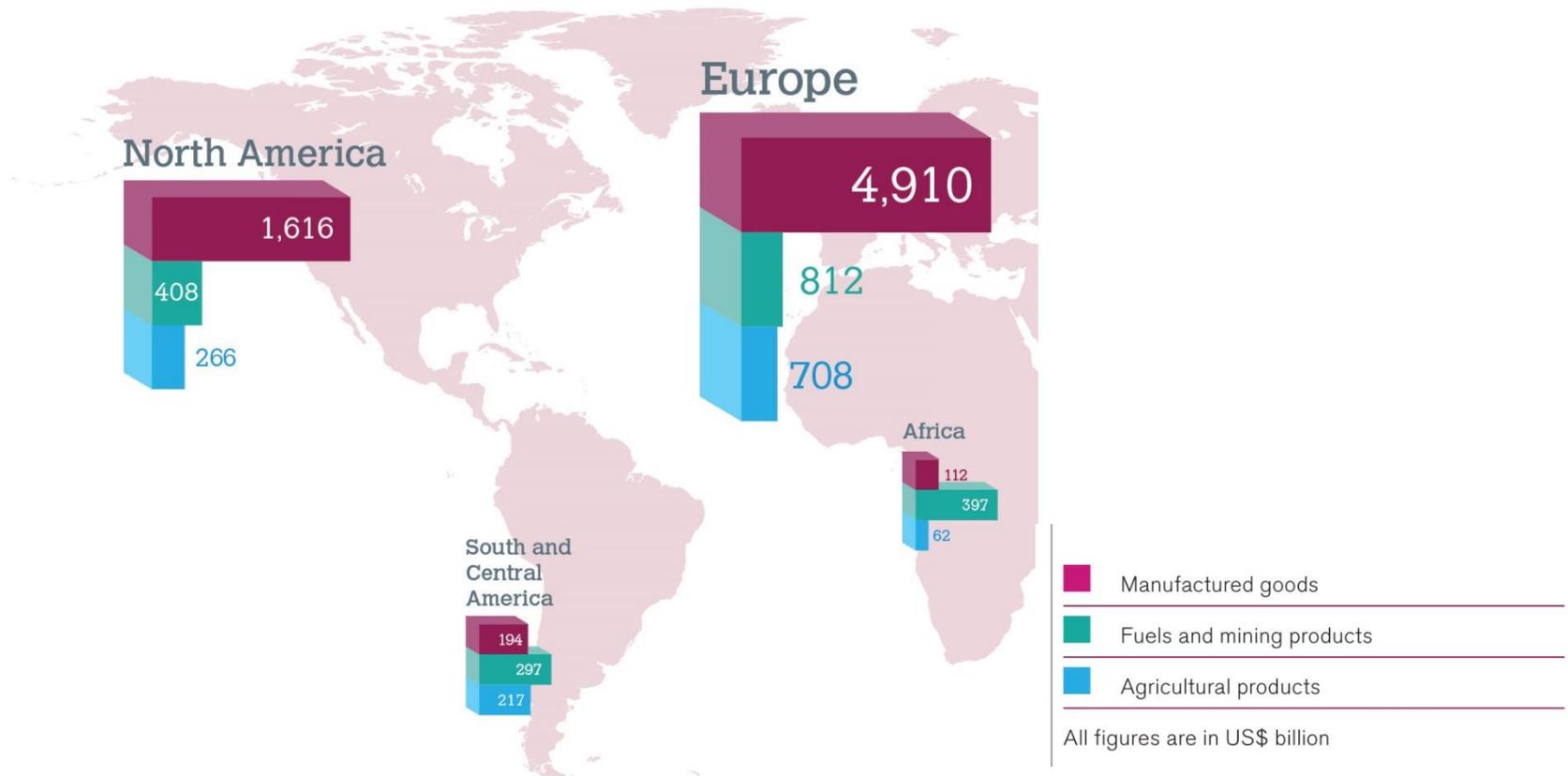
(Bln US\$ by MDG Regions in 2012)



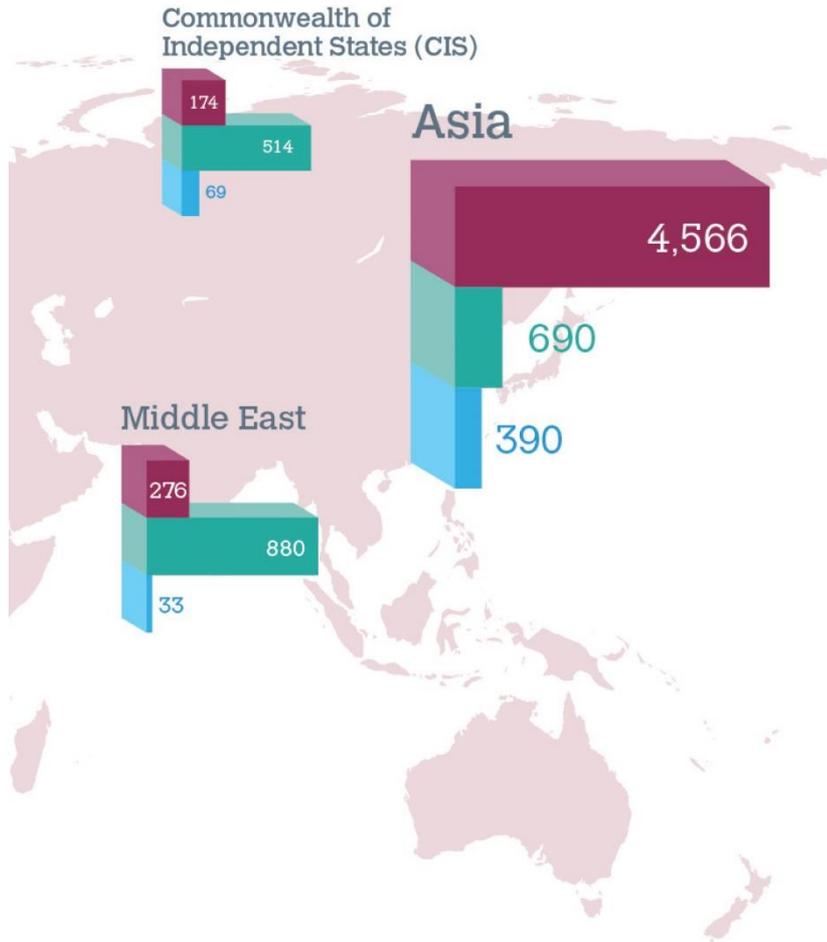
Exports of manufactured goods, fuel and mining and agricultural products (USD billions)

Europe's exports of manufactured goods totalled almost US\$ 5 trillion in 2013

Merchandise exports by region and product, 2013 (US\$ billion)

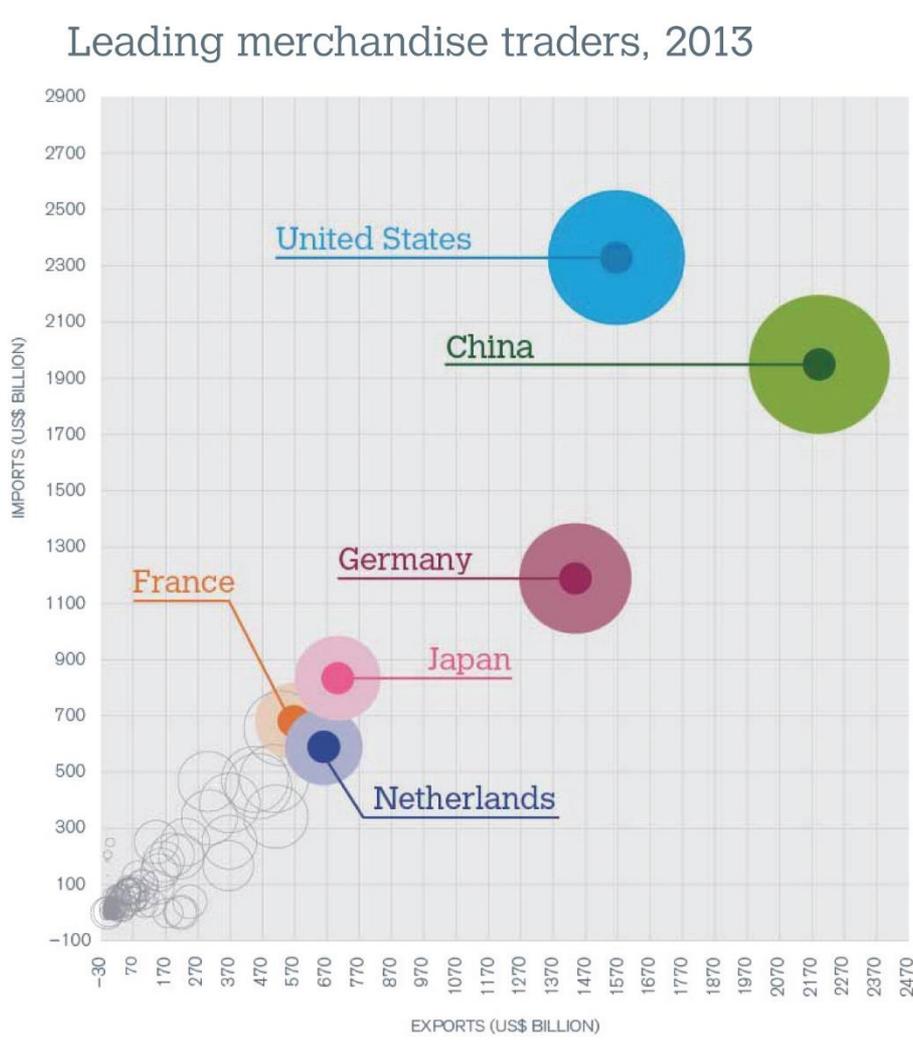


Exports of manufactured goods, fuel and mining, and agricultural products (USD billions)



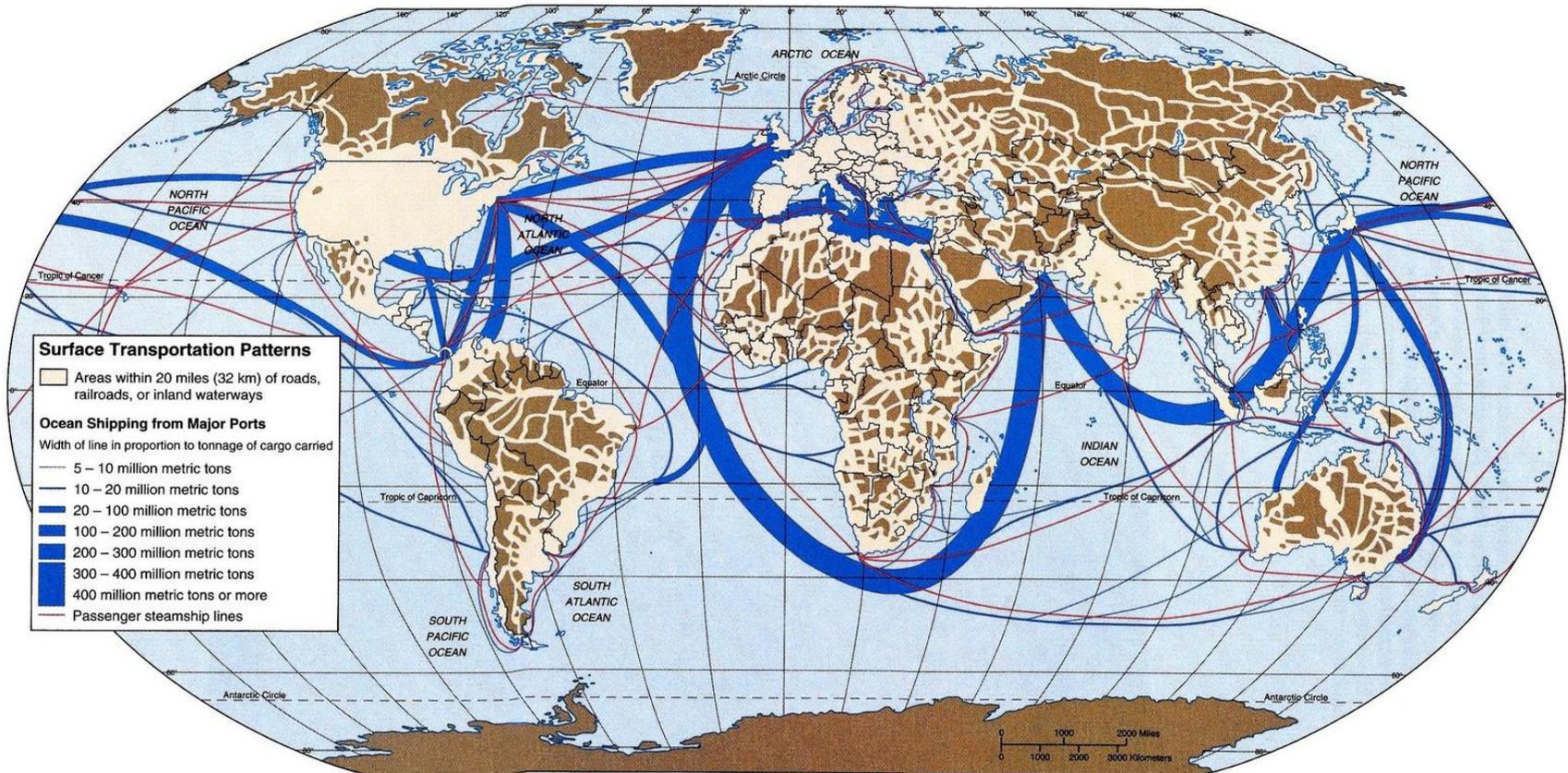
All figures are in US\$ billion

Leading merchandise traders, exports vs. imports, 2013 (USD billions)

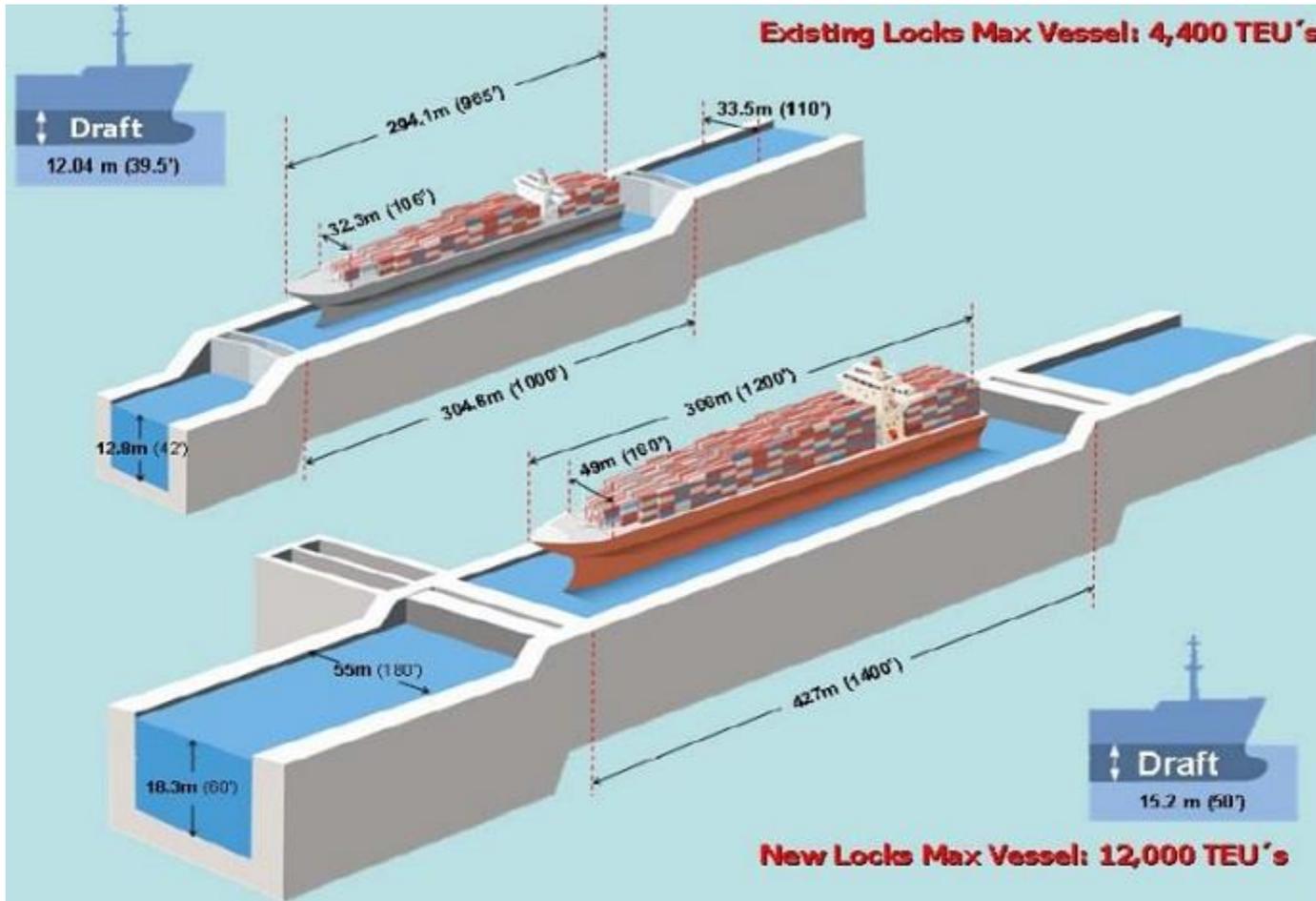


World surface transportation routes

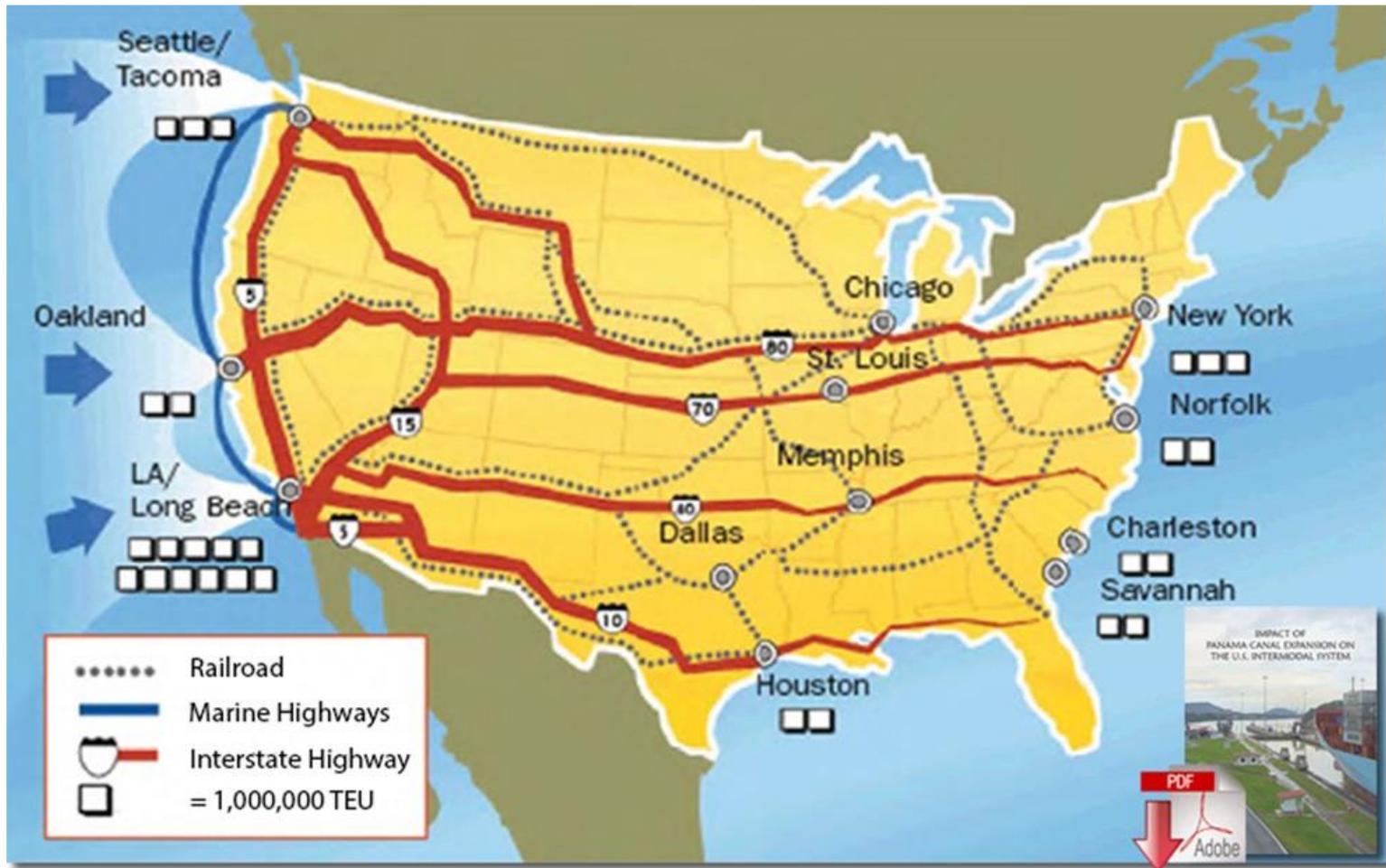
World Transportation Patterns



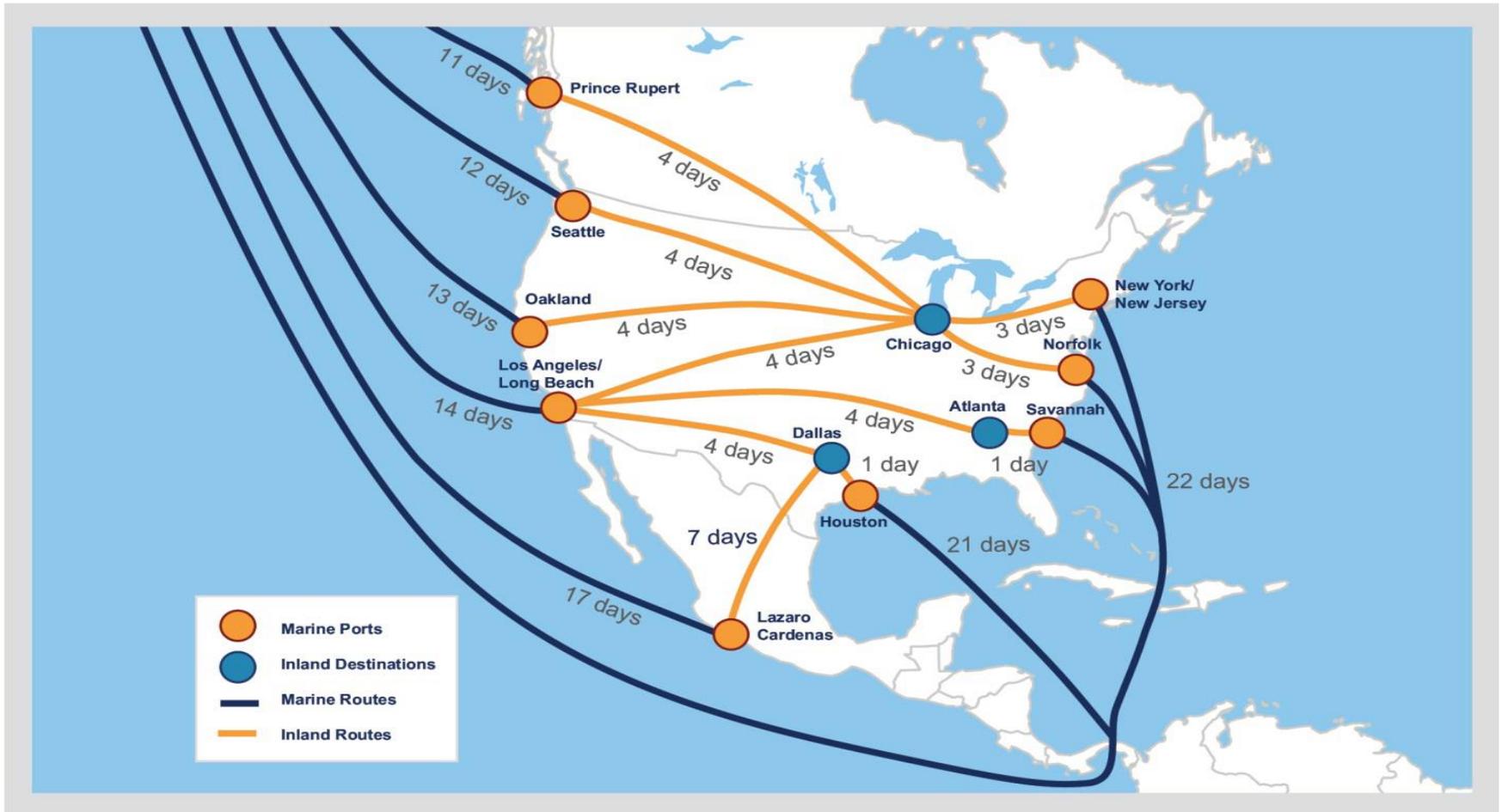
Panama Canal Expansion Project



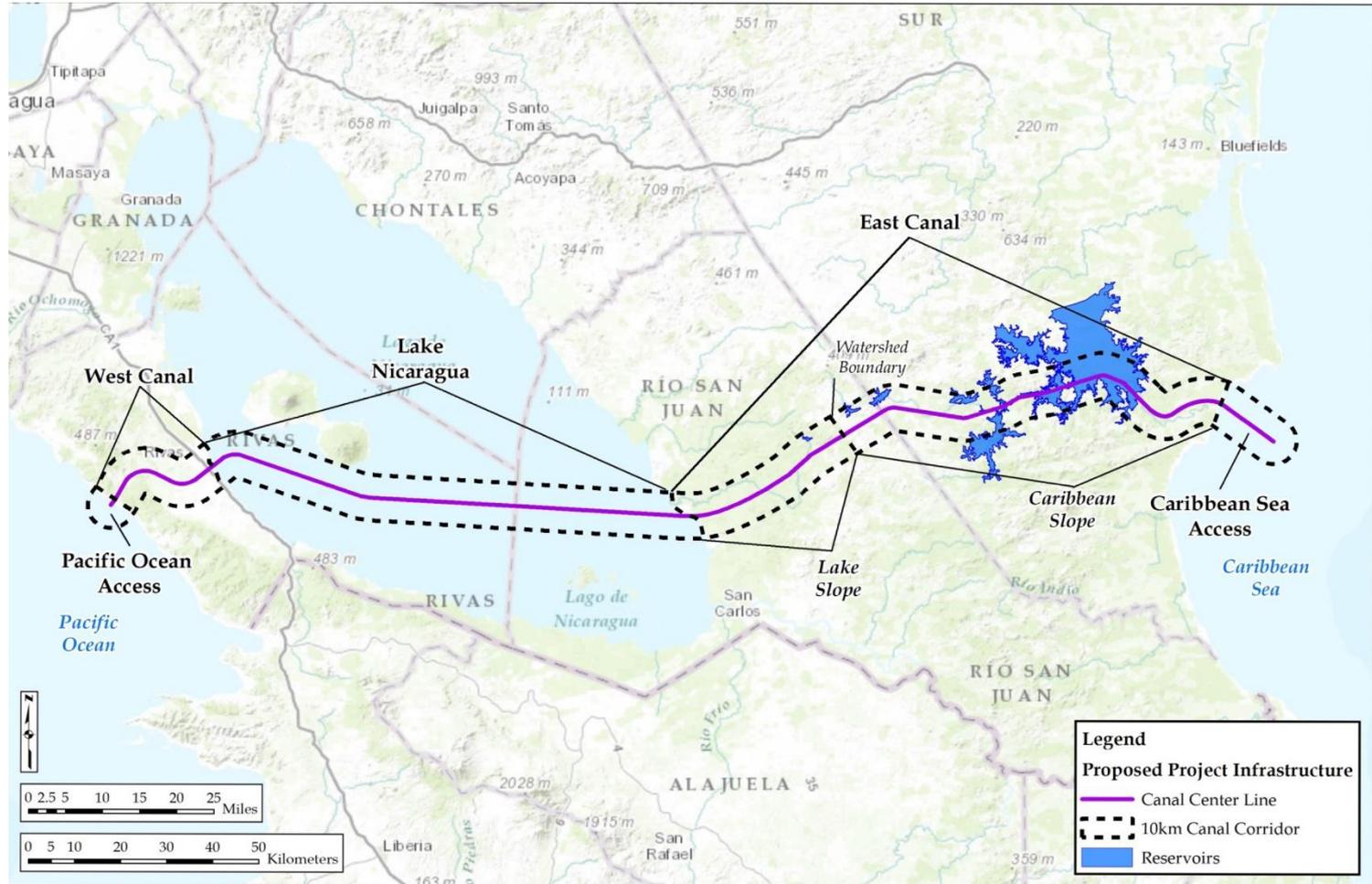
U.S. intermodal and interstate highway corridors



Routes from Northeast Asia to Major North American destinations



Nicaragua Canal



Nicaragua Canal dimensions

Table 3.1-1: Canal Dimensions

Canal Sections	Length (km)	Bottom Elevation	Design Minimum Depth	Typical Canal Bottom Width
Pacific Ocean	1.7	-30.2 m	29.0 m	280 m
Pacific coast to the Brito Lock	12.5	-30.2 m	29.0 m	280 m
Brito Lock to Lake Nicaragua	13.4	3.25 m	26.9 m	230 m
Lago de Nicaragua ¹	106.8	1.75 m	28.4 m	280 m
Lake Nicaragua to Camilo Lock	105.6	3.25 m	26.9 m	230 m
Camilo Lock to the Caribbean coast	21.1	-29.8 m	29.0 m	280 m
Caribbean Sea	14.4	-29.8 m	29.0 m	280 m
Total length	275.5	NA	NA	NA

km = kilometers; m = meters; NA = not applicable

¹ Average water elevation in Lago de Nicaragua is approximately 31.3 meters, and the canal's operating range is from elevation 30.2 meters to 33.0 meters.

Nicaragua Canal target vessels

Table 3.1-2: Target Vessel Dimensions

Boat Type	Dry Weight Tonnage (DWT) Ship Vessels Container Capacity (TEU)	Overall Length (m)	Type Width (m)	Fully loaded draft in seawater (m)
Container Ships	25,000 TEU	500	72	18
Very Large Crude Carriers (VLCC)	320,000 DWT	330	60	20
Ultra-large Bulk Carriers (ULBC)	400,000 DWT	365	65	23.5

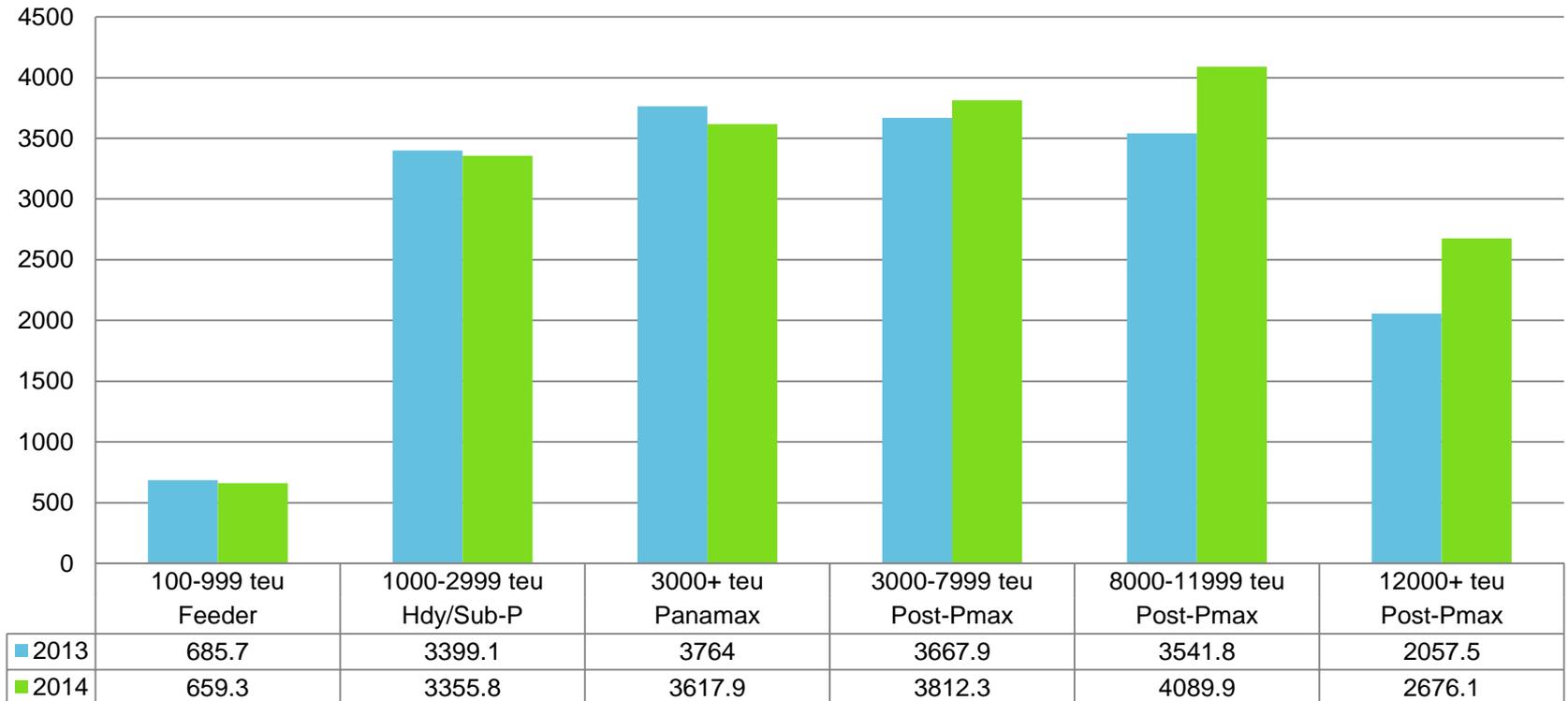
TEU = twenty-foot equivalent units; m = meters

Panama and Nicaragua canal design vessels and largest containerships

Canal design vessels vs. largest containerships						
	Design vessels		APM McKinney Maersk	CSCG Globe	MSC Oscar	
	Panama Canal	Nicaragua Canal				
TEU	12,000	25,000	18,340	19,100	19,224	
Length m	366	500	400	400	395.4	
Width m	49	72	59	58.6	59	
Draft m	15.2	18	16	16	16	

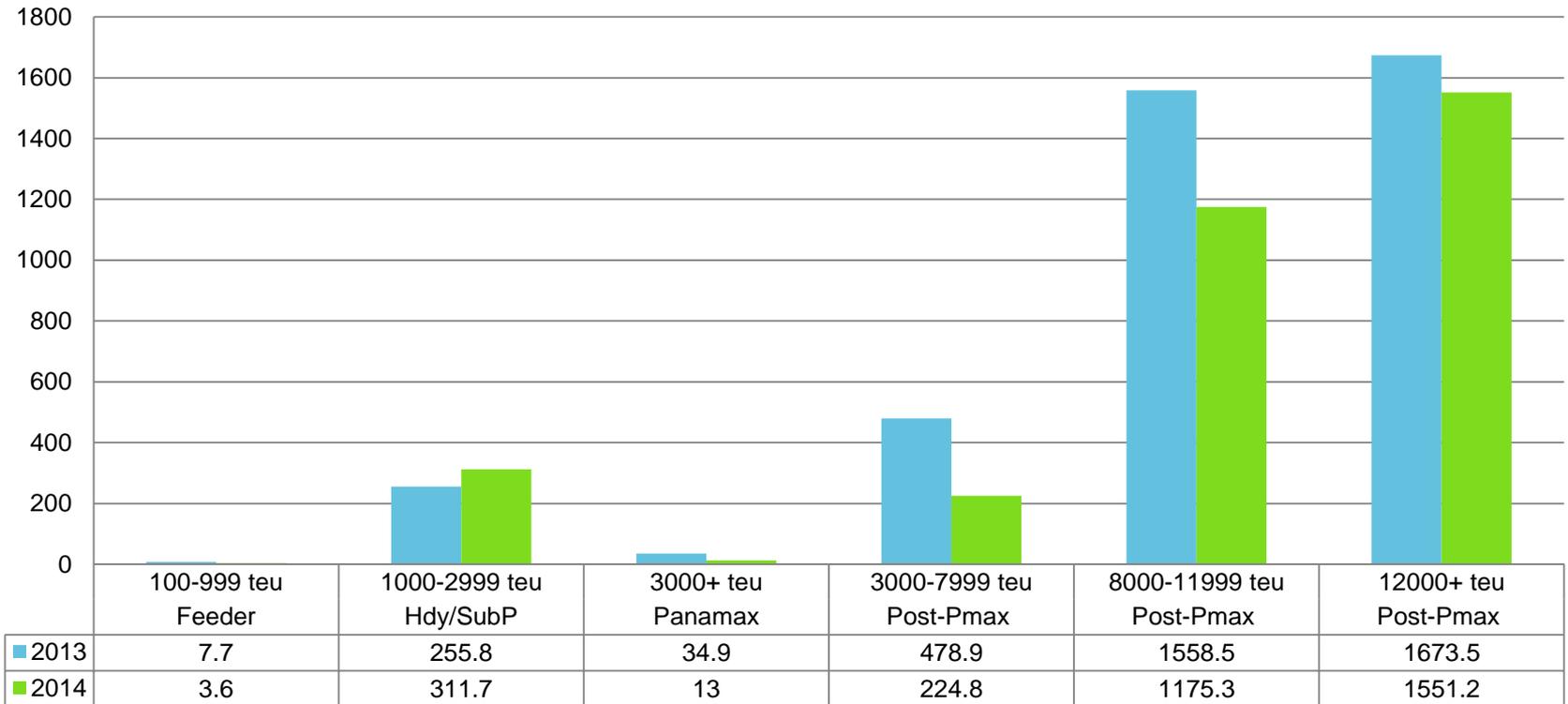
Containership fleet

**Containership fleet by teu capacity,
2013-2014
('000 teu)**



Containership orderbook

**Containership orderbook by teu capacity,
2013-2014
('000 teu)**



APM McKinney Maersk Triple E 18,340 TEU ship – 400 m long x 59 m wide x 16 m draft



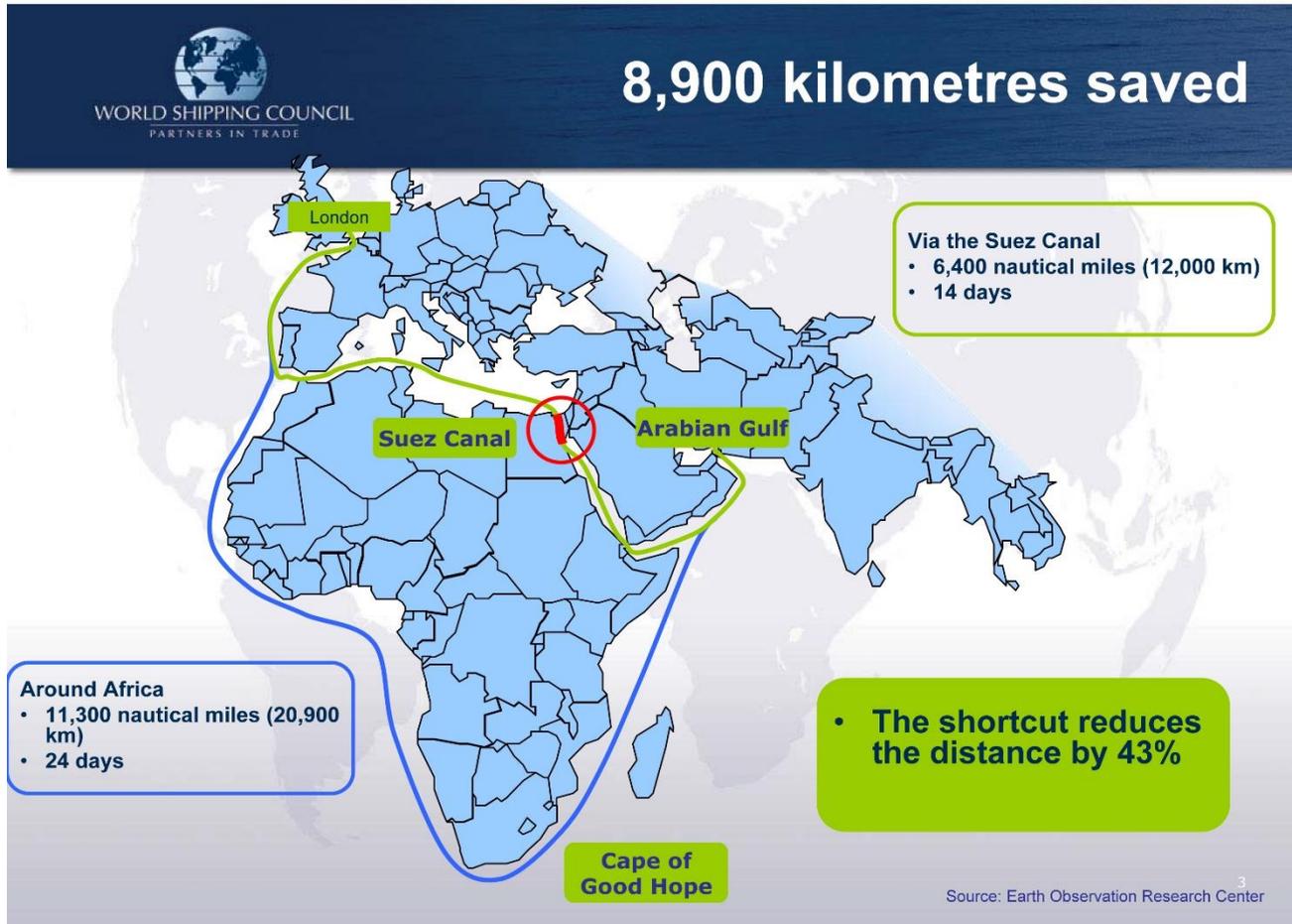
CSCGL Globe 19,100 TEU ship - 400 m long x 58.6 m wide x 16 m draft



MSC Oscar 19,224 TEU containership - 395.4 m long x 59 m wide x 16 m draft



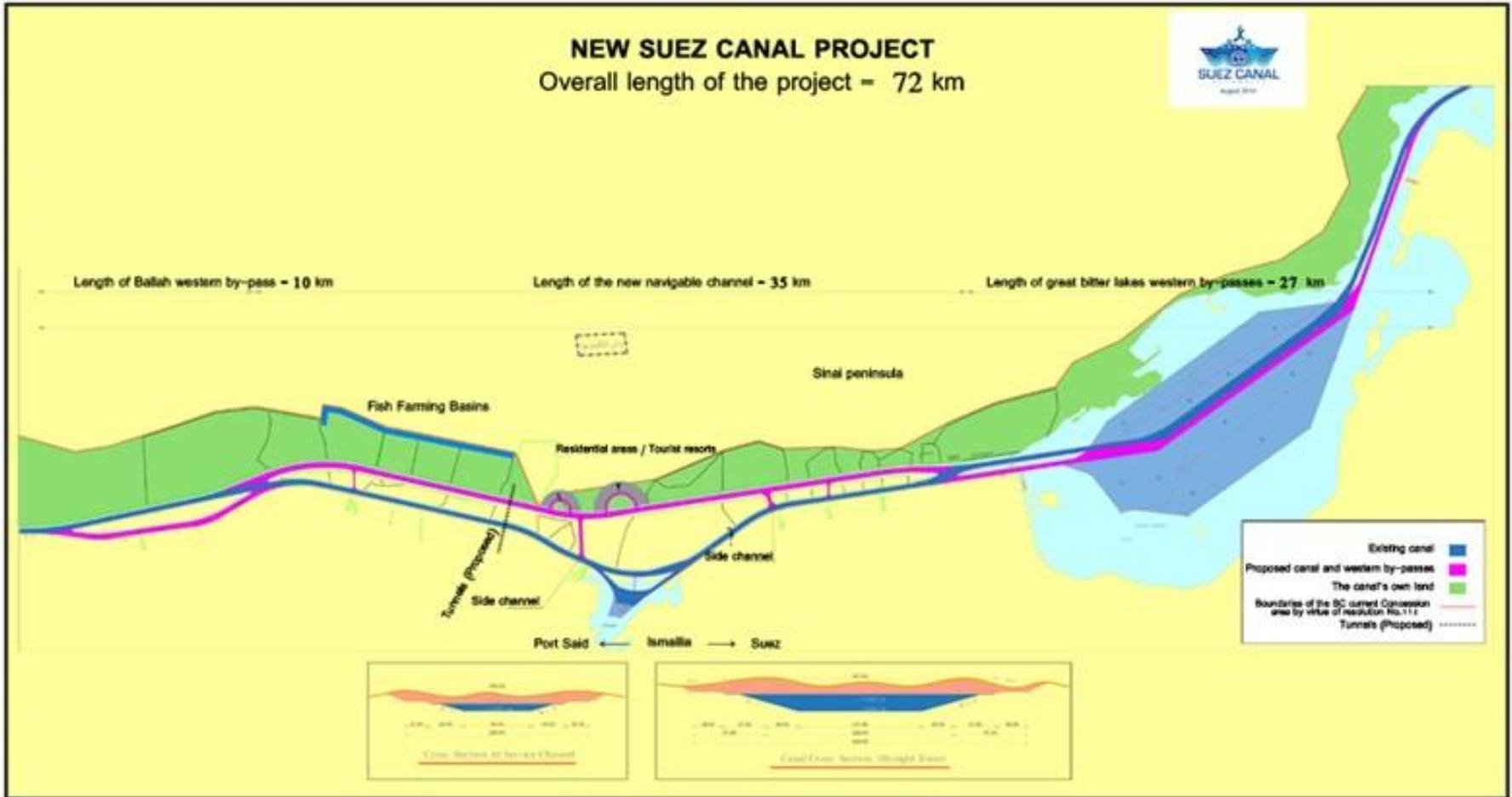
Suez Canal



Suez Canal expansion project



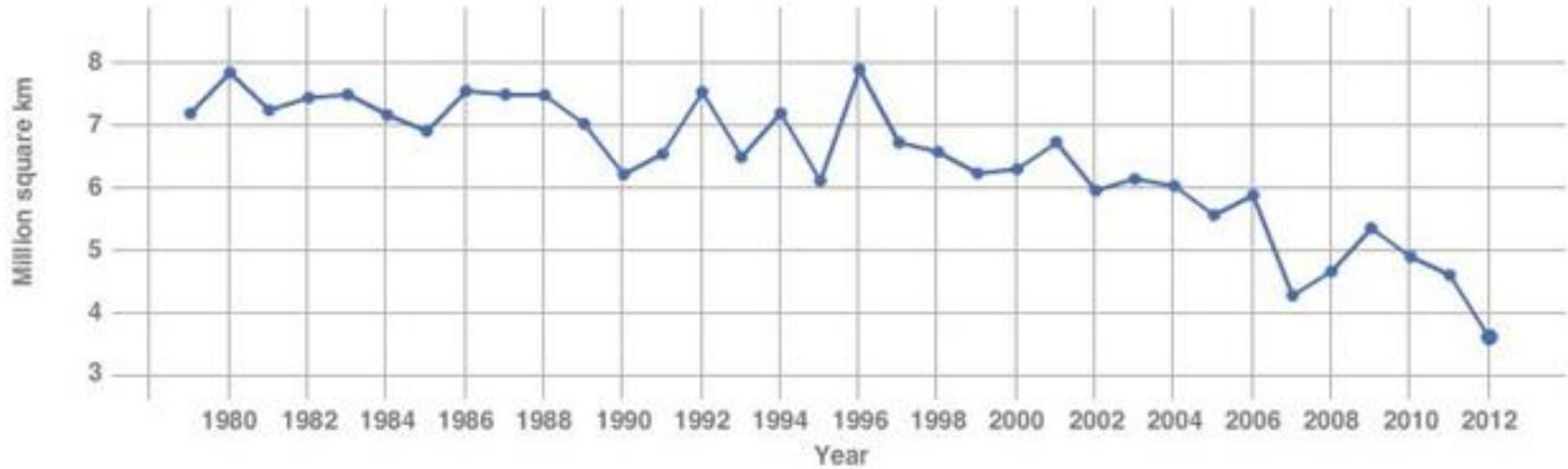
New Suez Canal project



Northern Sea Route vs. Southern Sea Route via Suez



Arctic ice, 1980-2012 (million sq. km)



Northern Sea Route from China to Europe and Northwest Passage from China to U.S. East Coast



Trans-Siberian railway



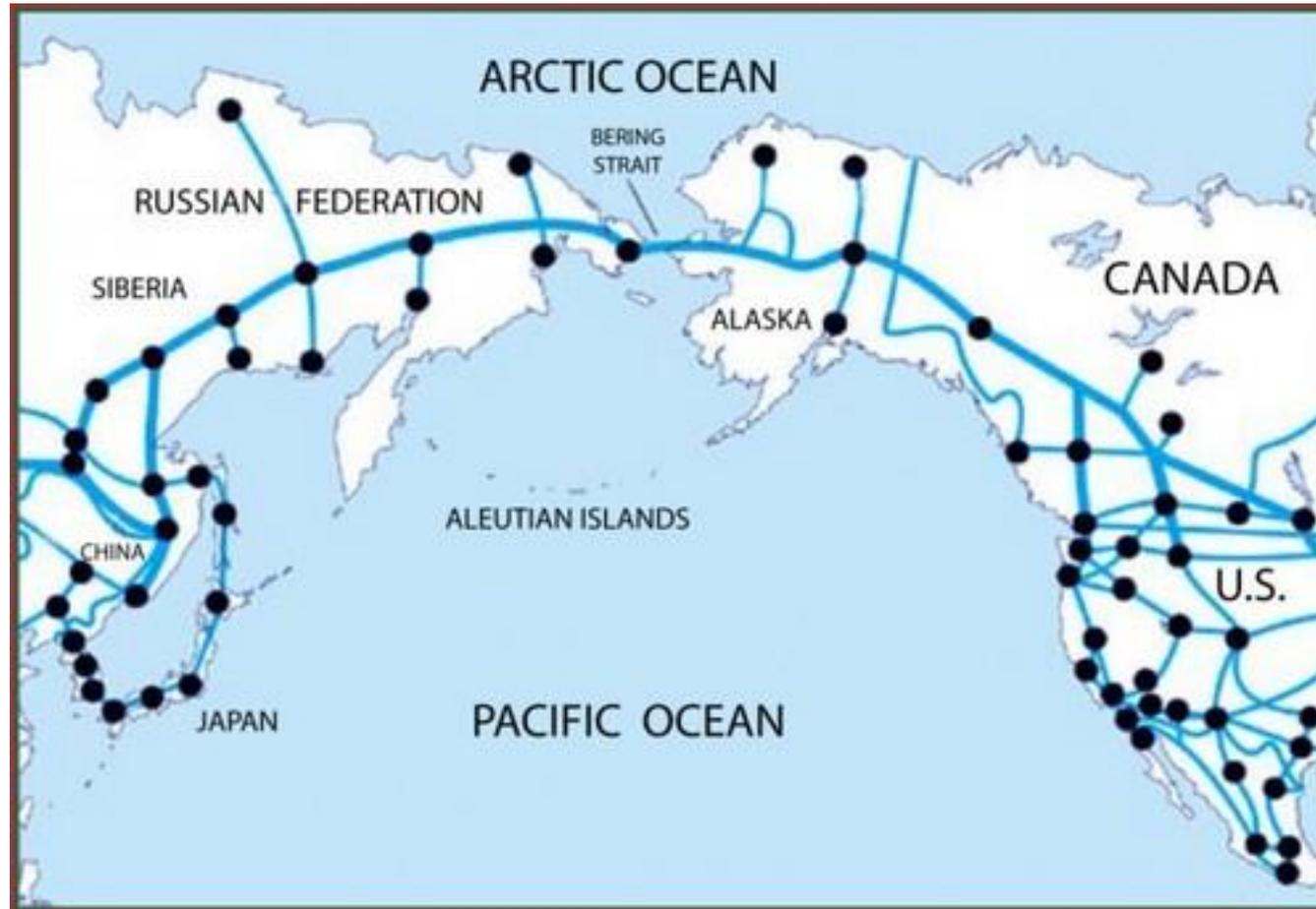
China to Europe via Kazakhstan railway



Block Train Service China - Europe

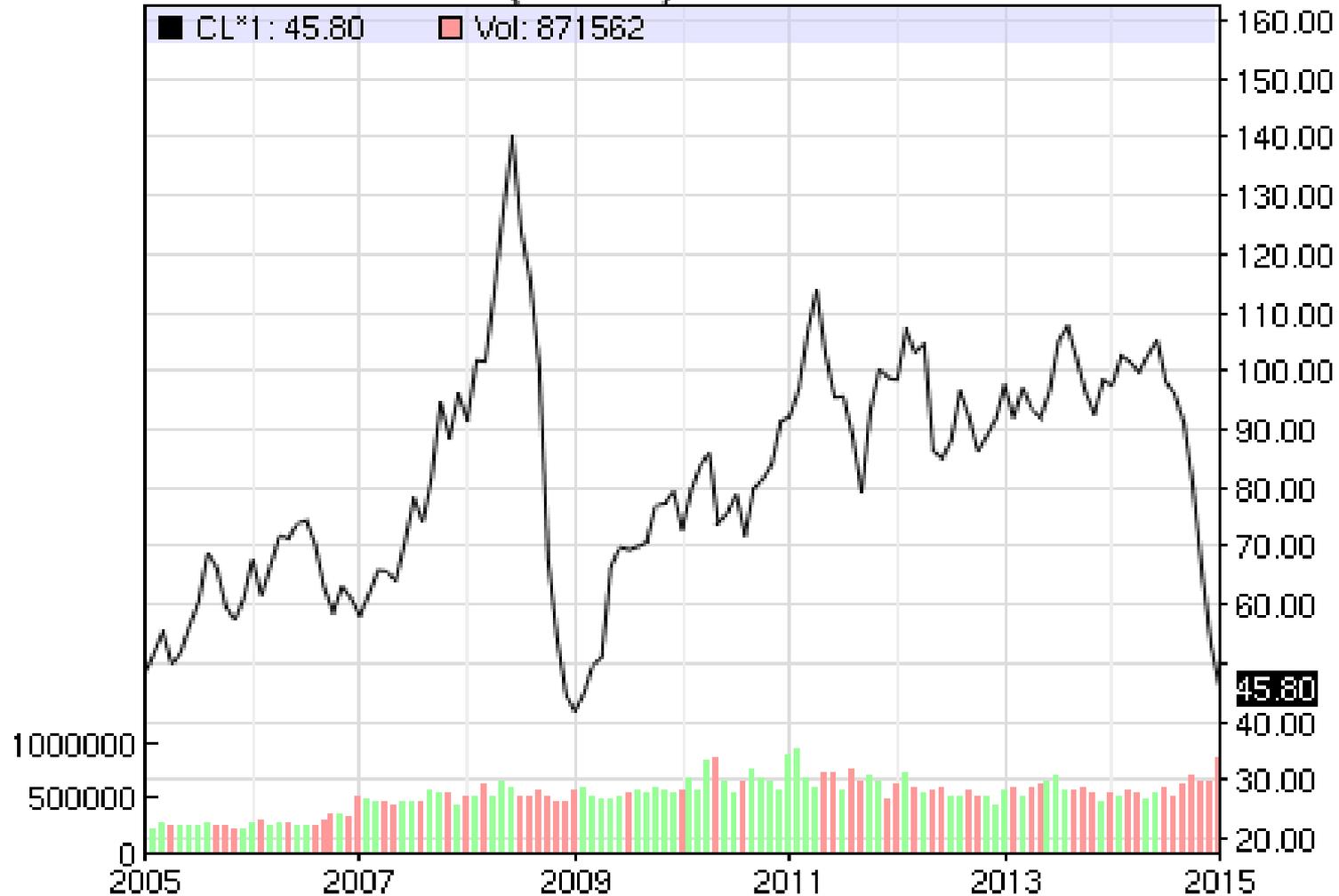


Bering Straits rail tunnel



Crude oil prices, 2005-2015

CLH05 - Crude Oil WTI (NYMEX)



Expansion of Cuba trade



Thank you.

Larry Boorstein

larry.boorstein@aecom.com

Cell +1-703-625-8414

AECOM Technical Services, Inc.

2101 Wilson Blvd 8th Fl

Arlington VA 22201-3044

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