



China's Role in the Global Economy

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Global growth outlook

Global GDP projected at 3.3% in 2016, with Europe in recovery and China decelerating



	(\$ Billions)	Growth Rates				
	2013 GDP	2012	2013	2014	2015(E)	2016(E)
US	16,663	2.2 %	1.5 %	2.4 %	2.4 %	2.0 %
Eurozone	13,062	(0.8)	(0.3)	0.9	1.5	1.5
Germany	3,713	0.6	0.4	1.6	1.5	1.4
France	2,784	0.2	0.7	0.2	1.1	1.4
Italy	2,112	(2.9)	(1.8)	(0.4)	0.7	1.5
China	9,481	7.7	7.7	7.3	6.9	6.4
Japan	5,078	1.7	1.4	0.0	0.4	0.7
United Kingdom	2,726	1.2	2.2	2.9	2.2	2.6
Brazil	2,469	1.9	3.0	0.1	(3.8)	(2.9)
Canada	1,850	1.9	2.0	2.4	1.2	2.0
Australia	1,505	3.5	2.0	2.6	2.2	2.0
South Korea	1,305	2.3	3.0	3.3	2.6	2.6
Mexico	1,262	4.0	1.3	2.3	2.5	2.8
Israel	292	2.9	3.3	2.6	2.4	3.1

Note: Estimates as of Feb. 24, 2016.

Source: Goldman Sachs Global Investment Research.

Global potential growth outlook

Real GDP Growth (year-over-year)

	Growth Rates			
	2014	2015E	2016E	Potential Output*
US	2.4%	2.4%	2.0%	1.8%
Eurozone	0.9	1.5	1.5	1.5
Japan	0.0	0.4	0.7	0.8
Asia ex-Japan	6.4	6.1	6.0	n.a.
China	7.3	6.9	6.4	6.0
India**	7.3	7.6	7.9	8.0
South Korea	3.3	2.6	2.6	3.6
Hong Kong	2.5	2.3	1.6	2.9

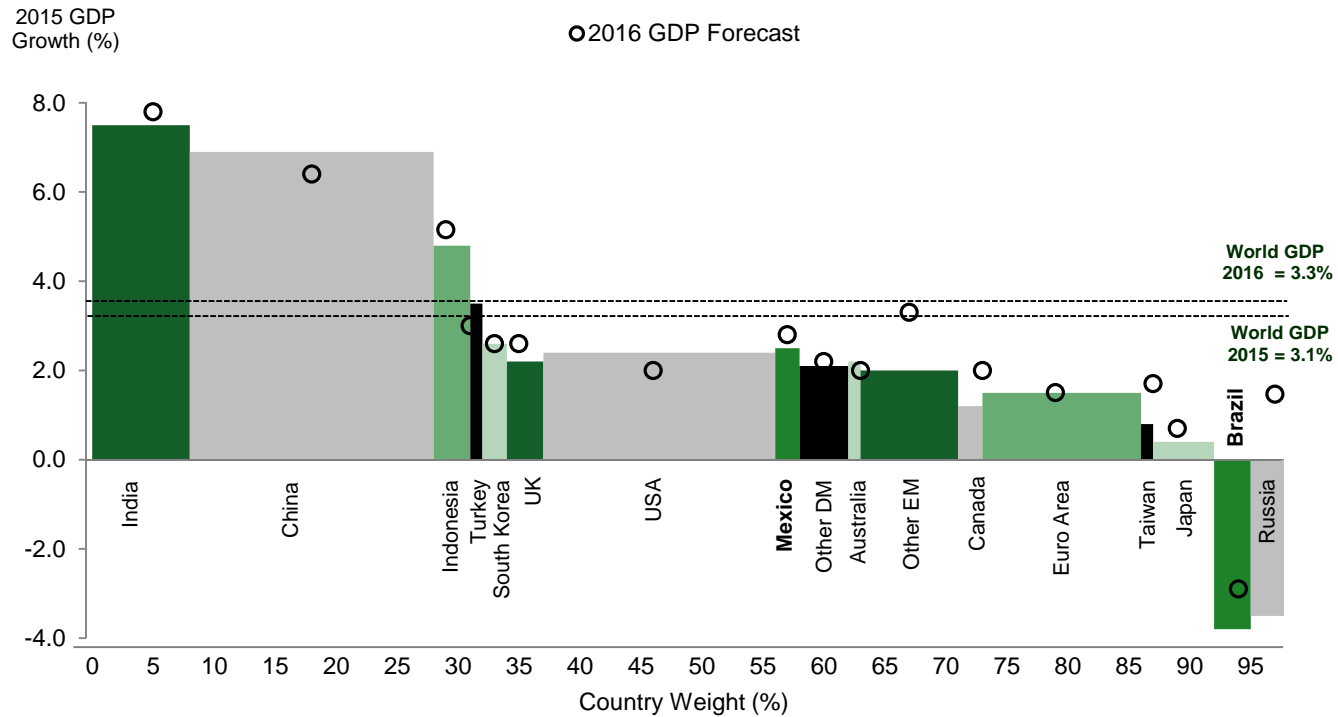
*GS estimates of annualized growth rates of potential output from 2015 to 2019.

**Fiscal year basis. 2014 is India FY15 (Q2 2014-Q1 2015).

Note: Estimates as of Feb. 22, 2016.

Source: Goldman Sachs Global Investment Research.

Global GDP growth is projected to improve in 2016E

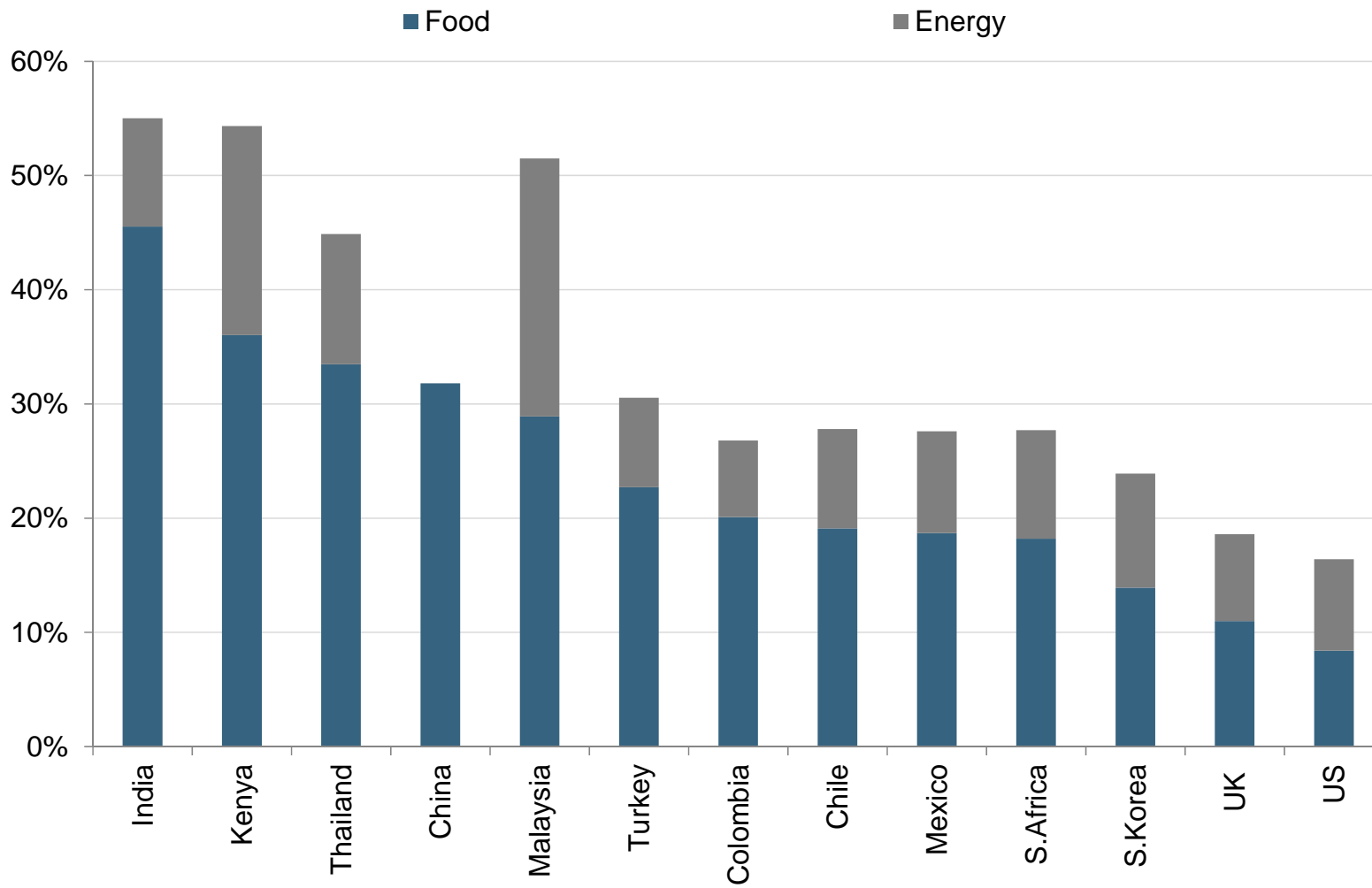


Width of the rectangular bars = PPP country weight in global GDP

Source: Goldman Sachs Global Investment Research.

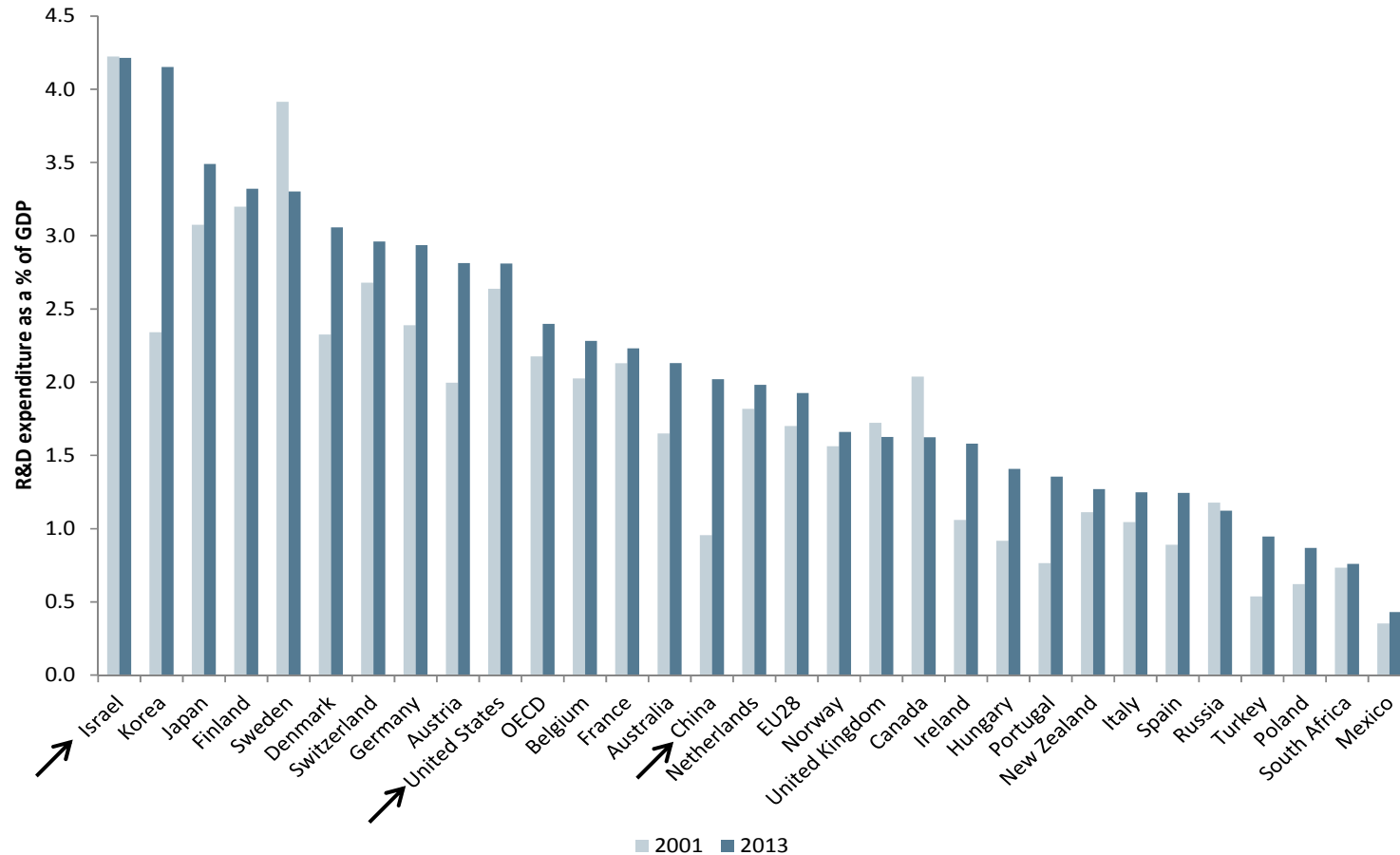
Food inflation may limit spending power

Food and energy as a percentage of the CPI basket, latest



Source: Various national statistics offices, OECD, Goldman Sachs Global Investment Research.

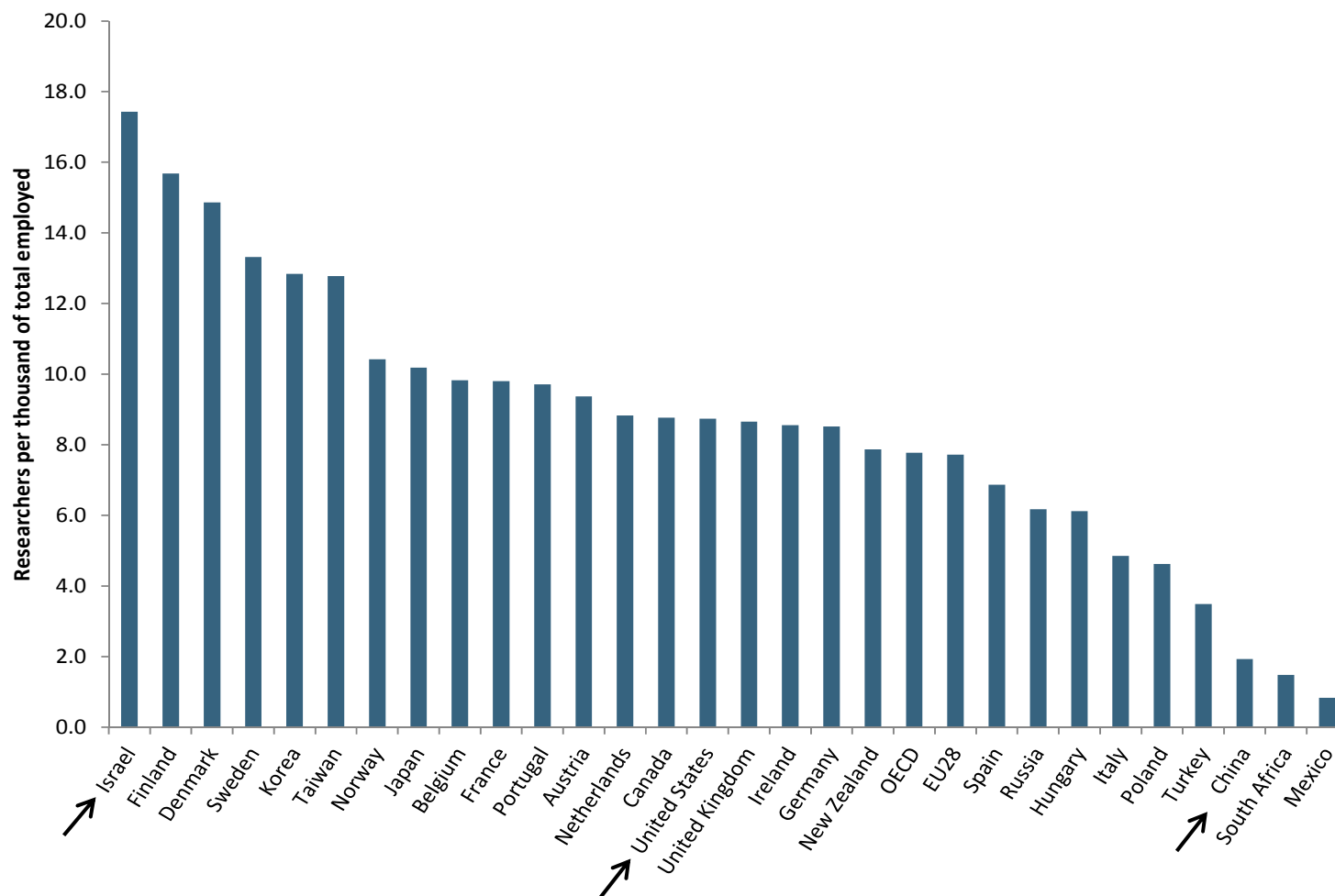
R&D expenditure in selected economies



Note: Data for Australia are from 2002 and 2011, Ireland from 2012, Mexico from 2011, New Zealand from 2011, South Africa from 2012, Switzerland from 2004 and 2012, and United States from 2012.

Source: OECD.

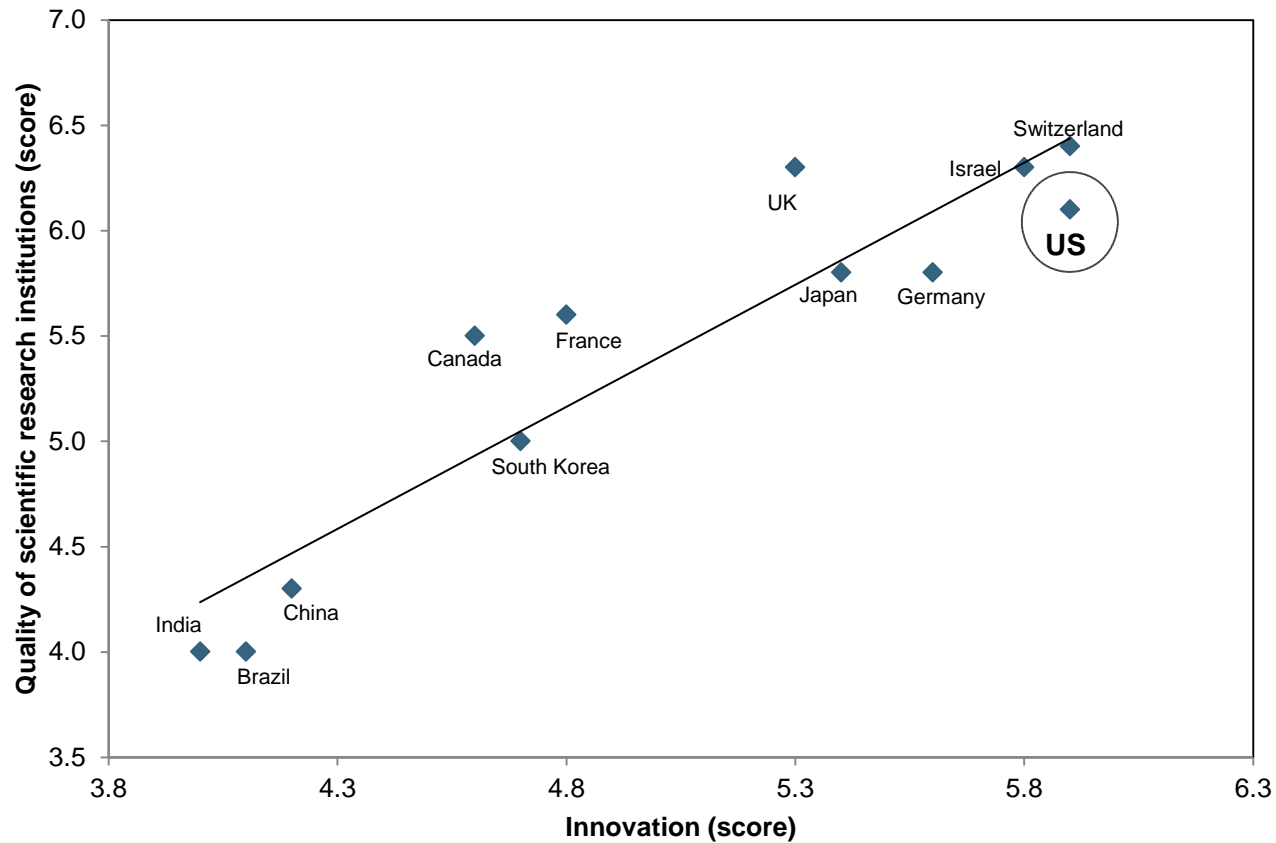
Researchers in science and technology in selected countries, 2013*



*Years vary based on data availability. Data for the following countries are from 2012: Israel, Canada, United States, Ireland, OECD, and South Africa. Data for Mexico are from 2011.

Source: OECD.

Strong link between innovation and high quality scientific research



Source: World Economic Forum, Global Competitiveness Report 2014-2015.

Selected factors contributing to innovation

Rankings out of 141 countries

	China	Israel	US
Total index	29	22	5
Business environment	78	32	11
R&D	21	1	8
General infrastructure	3	52	15
Environmental performance	102	38	33
Market sophistication	59	21	1
Venture capital	34	3	6
Innovation linkages	71	1	12
Knowledge creation	6	9	4
On-line creativity	104	21	17
Video uploads on YouTube	n.a.	2	1

Source: *The Global Innovation Index 2015*, Dutta, Lanvin, and Wunsch-Vincent (Cornell University, INSEAD, and WIPO).

US foreign trade

Last 12 months ended in December 2015

	US Exports to		US Imports from		(Deficit) or Surplus Billions of USD
	Billions of USD	Share of Total Exports (%)	Billions of USD	Share of Total Imports (%)	
→ North America	\$516.7	34.3%	\$589.9	26.3%	(\$73.2)
Canada	280.3	18.6	295.2	13.2	(14.9)
Mexico	236.4	15.7	294.7	13.2	(58.4)
→ European Union	272.7	18.1	426.0	19.0	(153.3)
UK	56.4	3.7	57.8	2.6	(1.5)
France	30.1	2.0	47.6	2.1	(17.6)
Germany	49.9	3.3	124.1	5.5	(74.2)
Italy	16.2	1.1	44.0	2.0	(27.8)
Poland	3.7	0.2	5.6	0.2	(1.9)
Israel	13.6	0.9	24.5	1.1	(10.9)
Russia	7.1	0.5	16.6	0.7	(9.5)
Australia	25.0	1.7	10.9	0.5	14.2
Africa	26.9	1.8	25.4	1.1	1.5
→ Asia	458.1	30.4	1,004.3	44.8	(546.2)
China	116.2	7.7	481.9	21.5	(365.7)
Hong Kong	37.2	2.5	6.7	0.3	30.5
Japan	62.5	4.2	131.1	5.9	(68.6)
Korea	43.5	2.9	71.8	3.2	(28.3)
Taiwan	25.9	1.7	40.7	1.8	(14.8)
Latin America	153.3	10.2	115.9	5.2	37.4
Brazil	31.7	2.1	27.4	1.2	4.3
Argentina	9.3	0.6	3.9	0.2	5.4
Total	\$1,504.9		\$2,241.1		(\$736.2)

Source: Haver Analytics, Goldman Sachs Global Investment Research.

Israel foreign trade

Last 12 months ended in December 2015

	Israel Exports to		Israel Imports from		(Deficit) or Surplus Millions of USD
	Millions of USD	Share of Total Exports (%)	Millions of USD	Share of Total Imports (%)	
→ North America	\$19,063.1	30.7%	\$8,443.5	13.6%	\$10,619.6
USA	18,095.2	29.1	8,069.0	13.0	10,026.2
Canada	569.3	0.9	263.0	0.4	306.3
Mexico	398.6	0.6	111.5	0.2	287.1
→ European Union	15,686.5	25.2	22,563.3	36.4	(6,876.8)
UK	3,796.7	6.1	2,271.6	3.7	1,525.1
France	1,673.6	2.7	1,603.9	2.6	69.7
Germany	1,428.4	2.3	3,807.4	6.1	(2,379.0)
Italy	957.5	1.5	2,490.5	4.0	(1,533.0)
Poland	218.3	0.4	269.0	0.4	(50.7)
Russia	666.6	1.1	726.4	1.2	(59.8)
Australia	494.6	0.8	158.8	0.3	335.8
Africa	917.3	1.5	268.9	0.4	648.4
→ Asia	17,504.6	28.1	15,253.8	24.6	2,250.8
China	3,118.2	5.0	5,766.6	9.3	(2,648.4)
Hong Kong	5,241.2	8.4	2,050.7	3.3	3,190.5
Japan	729.1	1.2	1,161.4	1.9	(432.3)
Korea	574.1	0.9	1,138.3	1.8	(564.2)
Taiwan	548.7	0.9	778.7	1.3	(230.0)
Latin America	1,339.2	2.2	753.2	1.2	586.0
Brazil	653.4	1.1	167.3	0.3	486.1
Argentina	105.8	0.2	147.0	0.2	(41.2)
Total	\$62,191.9		\$62,016.5		\$175.4

Source: Haver Analytics, Goldman Sachs Global Investment Research.

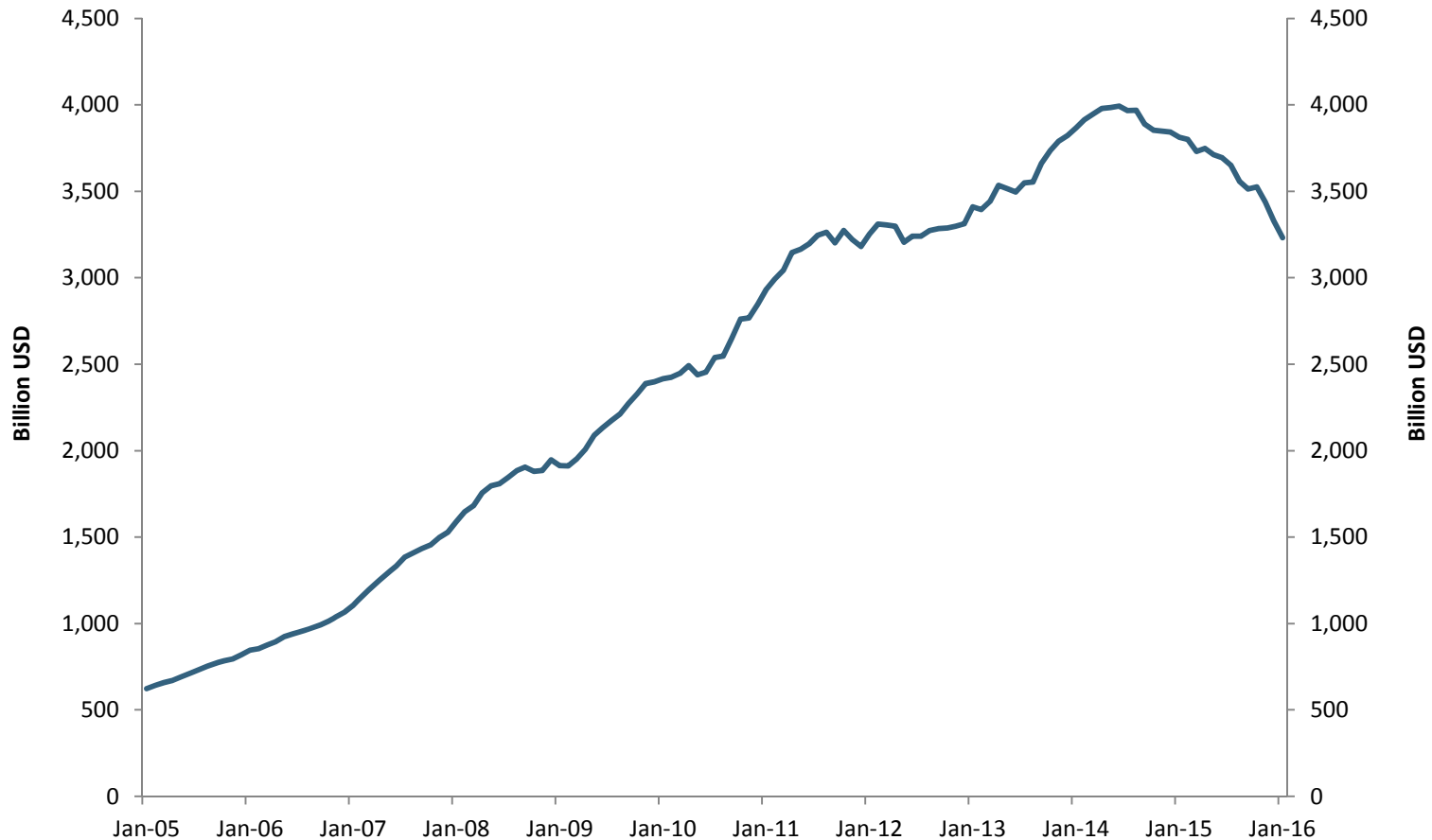
China foreign trade

Last 12 months ended in December 2015

	China Exports to		China Imports from		(Deficit) or Surplus Billions of USD
	Billions of USD	Share of Total Exports (%)	Billions of USD	Share of Total Imports (%)	
→ North America	\$473.4	20.8%	\$186.0	11.1%	\$287.4
USA	410.2	18.0	149.6	8.9	260.6
Canada	29.4	1.3	26.3	1.6	3.1
Mexico	33.8	1.5	10.1	0.6	23.7
→ European Union	355.9	15.6	209.1	12.5	146.7
UK	59.4	2.6	18.8	1.1	40.6
France	26.8	1.2	25.0	1.5	1.8
Germany	69.2	3.0	87.7	5.2	(18.6)
Italy	27.8	1.2	16.9	1.0	11.0
Israel	8.6	0.4	2.8	0.2	5.8
Russia	34.8	1.5	33.2	2.0	1.6
Australia	40.4	1.8	73.9	4.4	(33.5)
Africa	108.8	4.8	70.5	4.2	38.3
→ Asia	1,008.5	44.2	843.8	50.3	164.7
Hong Kong	330.8	14.5	12.3	0.7	318.5
Japan	136.3	6.0	143.1	8.5	(6.8)
Korea	101.5	4.4	174.4	10.4	(72.9)
Vietnam	66.4	2.9	24.0	1.4	42.4
India	58.3	2.6	13.4	0.8	44.9
Singapore	53.4	2.3	27.6	1.6	25.8
Taiwan	45.1	2.0	144.6	8.6	(99.5)
Middle East	129.8	5.7	104.6	6.2	25.2
Latin America	98.5	4.3	94.7	5.6	3.9
Brazil	27.4	1.2	44.4	2.6	(17.0)
Argentina	8.9	0.4	5.7	0.3	3.2
Total	\$2,281.4		\$1,677.4		\$604.0

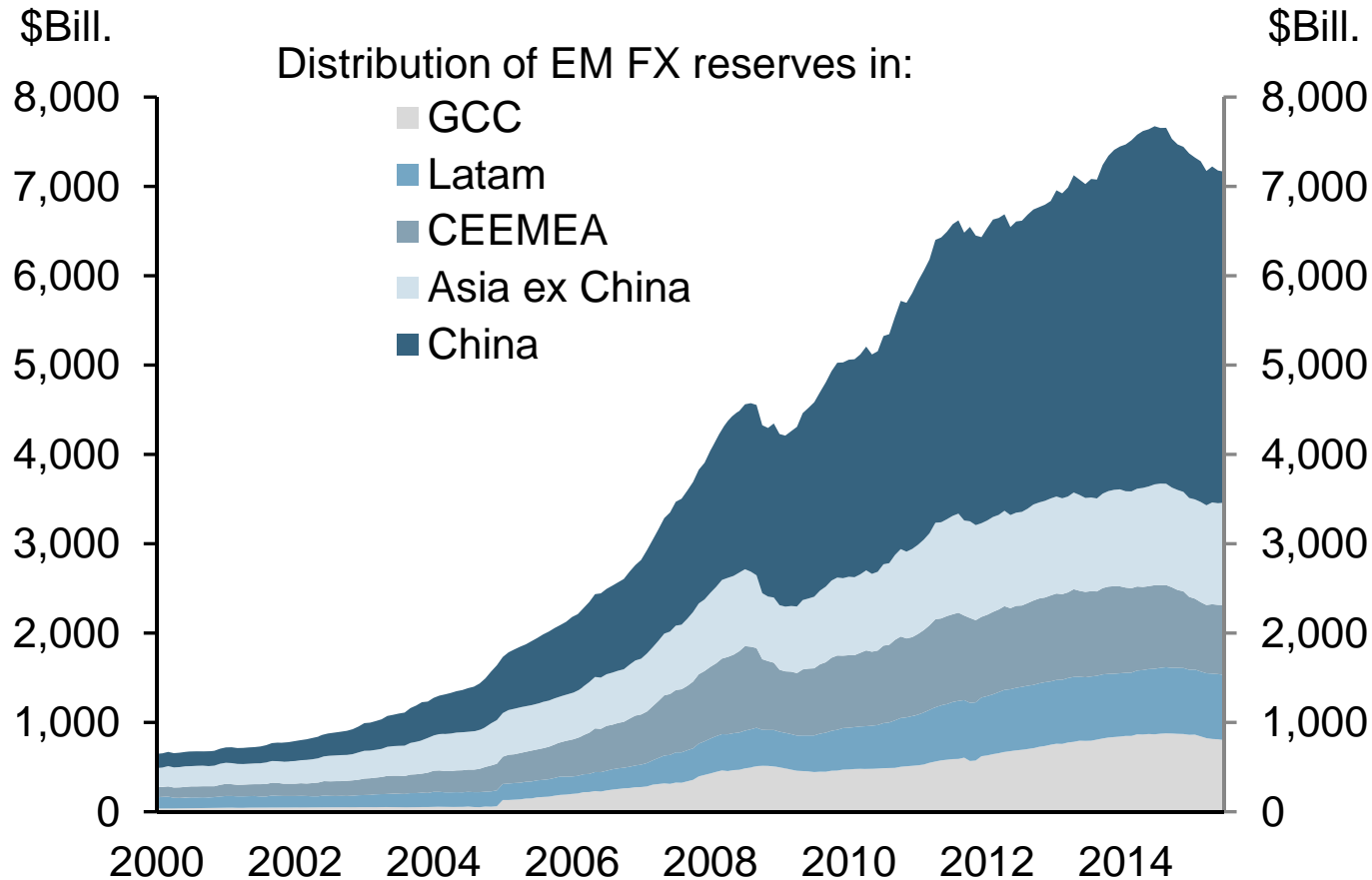
Source: Haver Analytics, Goldman Sachs Global Investment Research.

China's FX reserves peaked in early 2014



Source: PBOC, Haver Analytics, Goldman Sachs Global Investment Research.

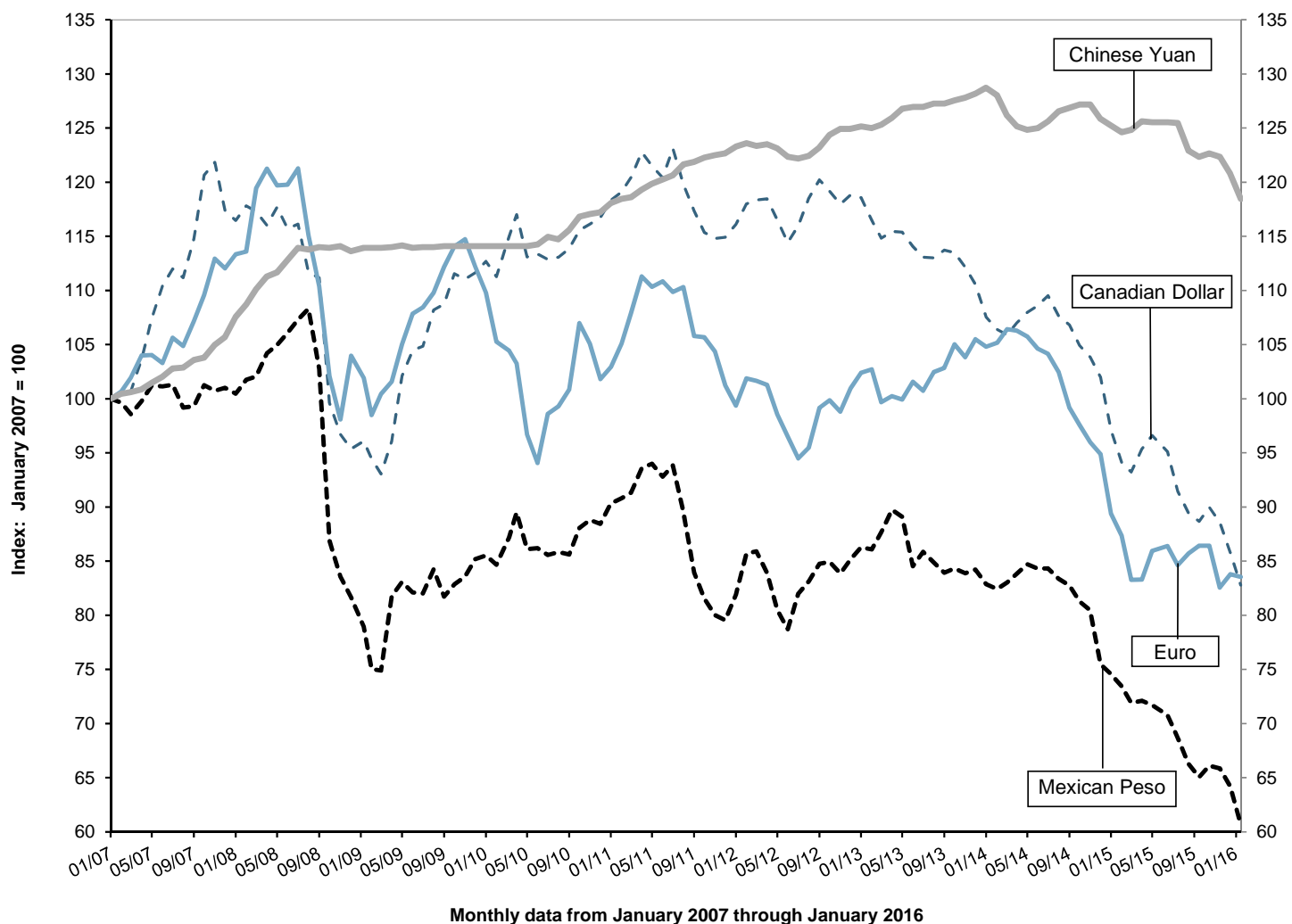
Emerging markets FX reserves appear to have peaked



Source: IMF COFER, Haver Analytics, Goldman Sachs Global Investment Research.

Selected foreign exchange rates

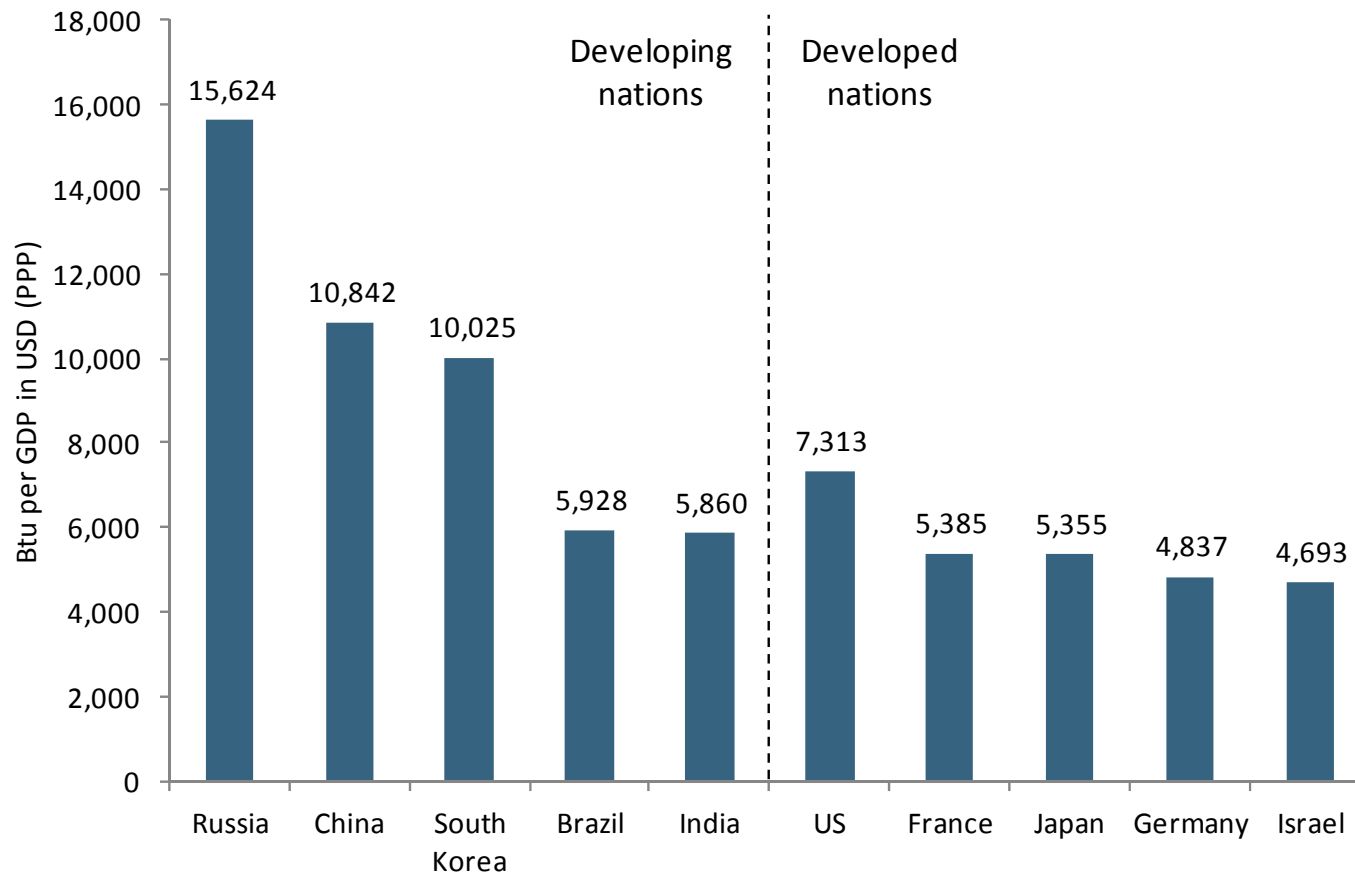
Major trade partners of the United States



Source: Federal Reserve Board, Goldman Sachs Global Investment Research.

Energy intensity gap between developed and developing economies, 2011

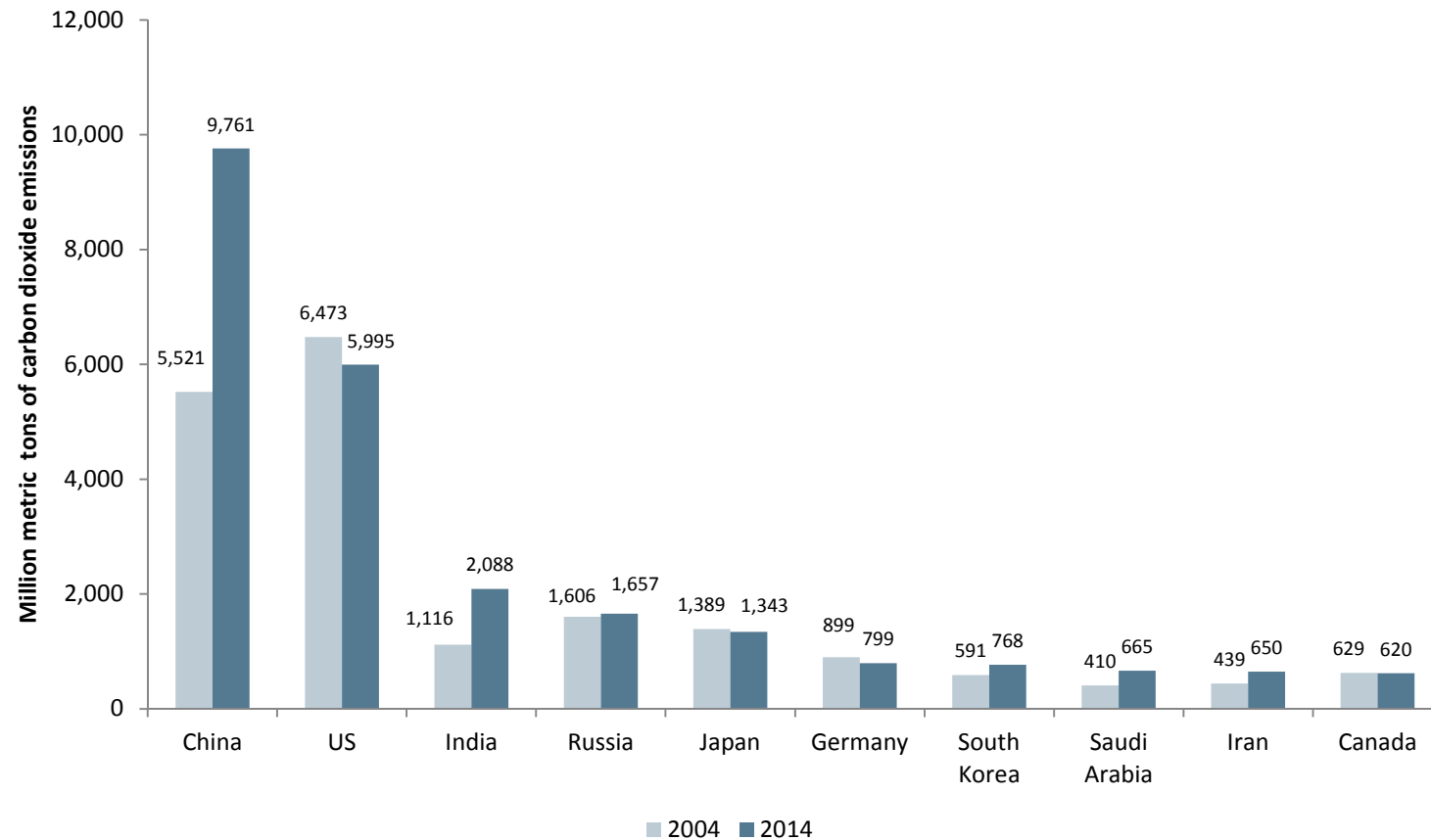
Energy-intensive activities are being outsourced along with pollution



Source: US Department of Energy, Energy Information Administration (EIA).

Top 10 CO₂ emitters in 2014

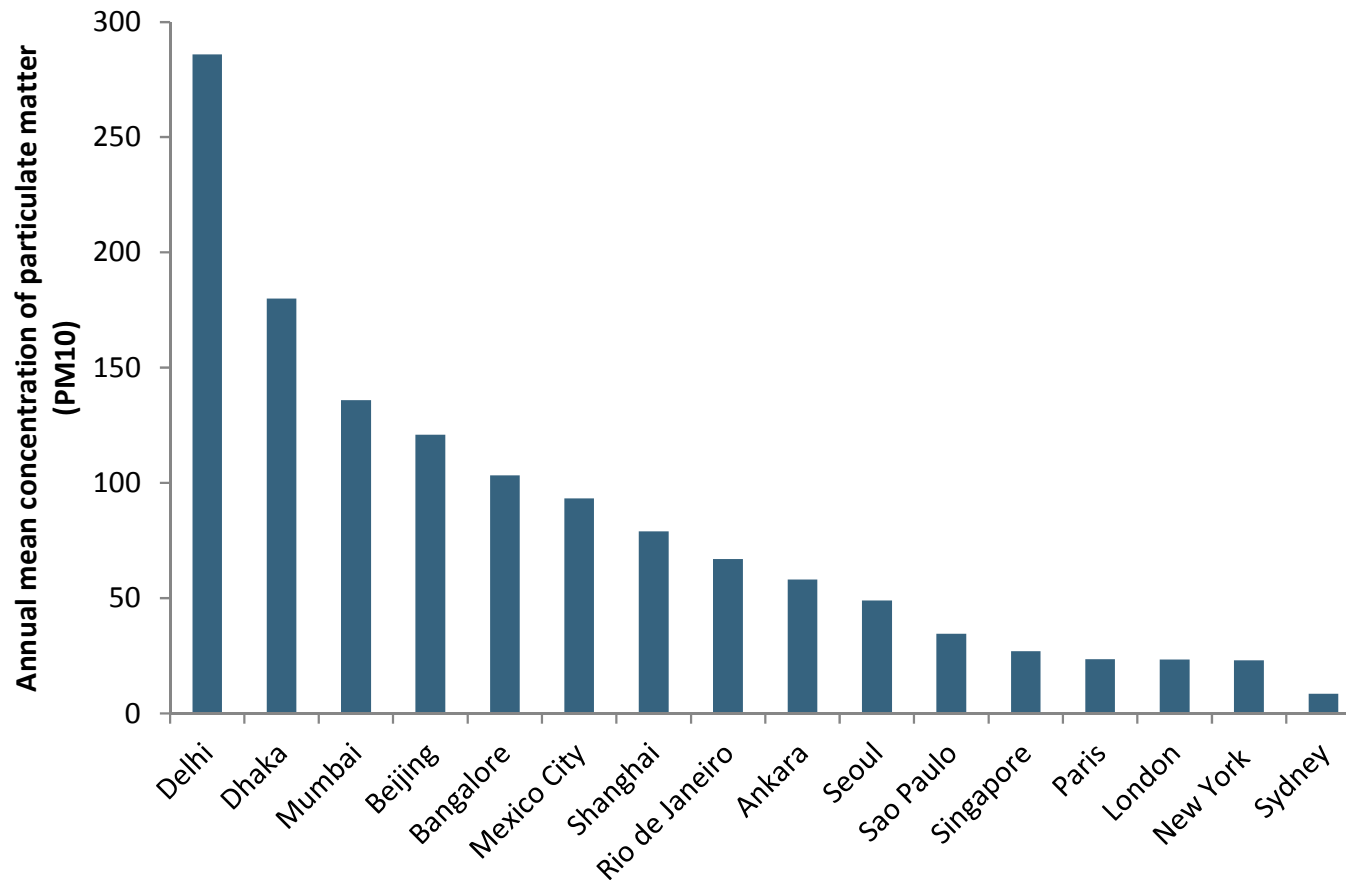
Rising significance of developing countries



Source: BP Statistical Review of World Energy, 2015.

Air quality worse in developing economies

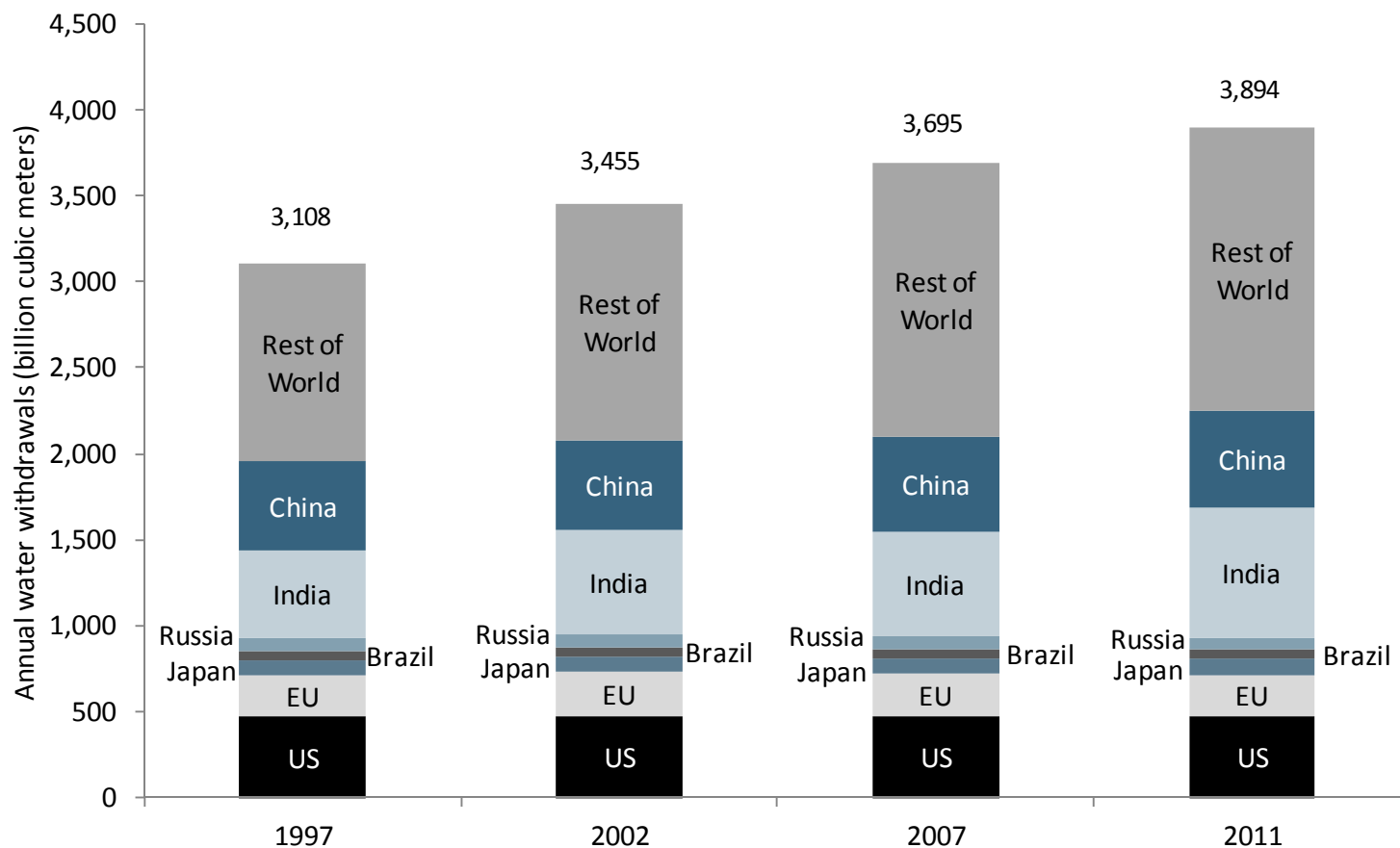
Annual mean concentration of particulate matter (PM10), selected cities



Source: WHO Ambient Air Pollution Database, 2014; Goldman Sachs Global Investment Research.

Developing countries have been major drivers of global water demand

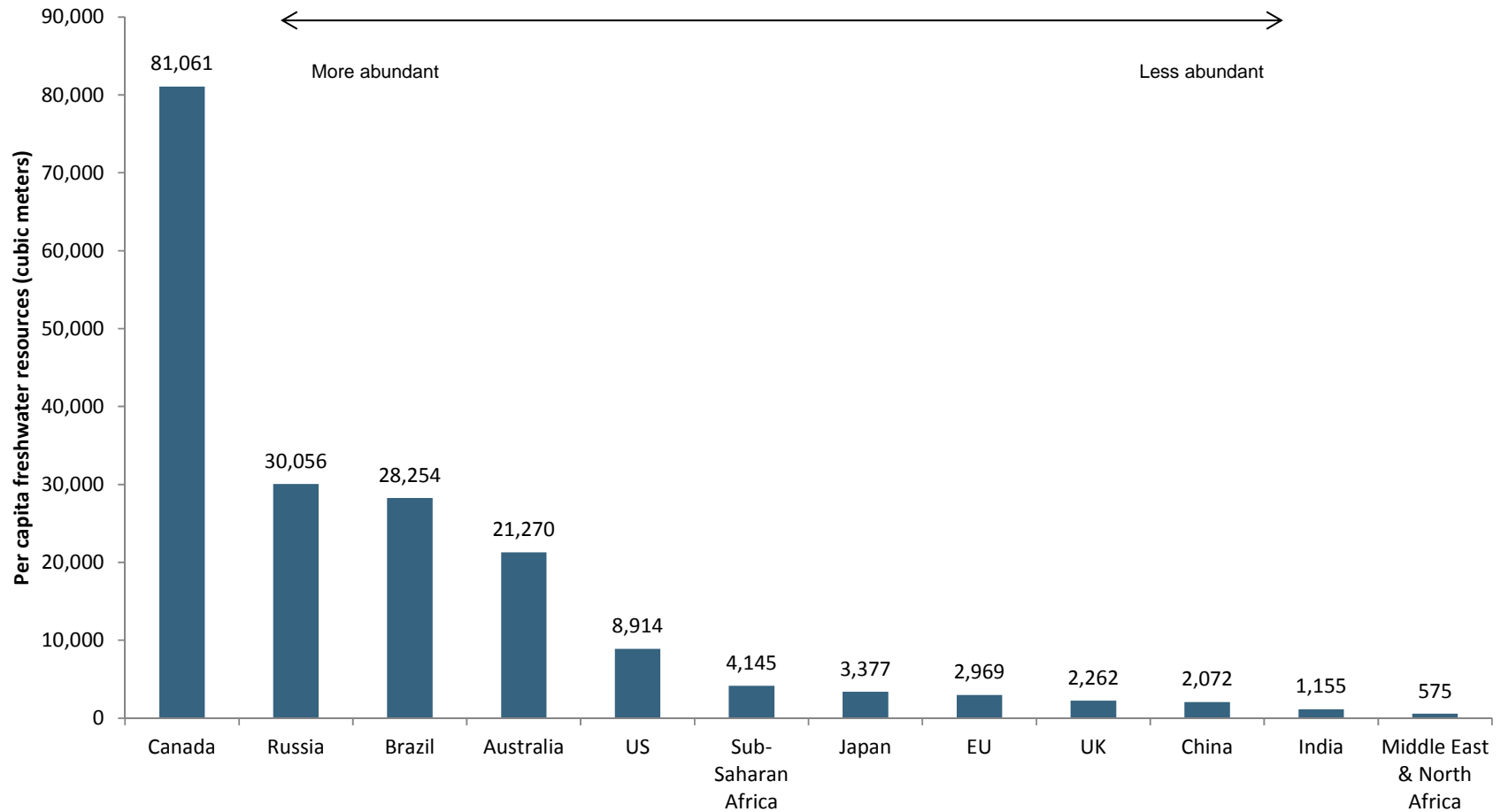
China and India account for a third of global water withdrawals



Source: World Bank.

The world's freshwater supply is unevenly distributed

A wide disparity in per capita distribution, 2013 data



Source: World Bank.



Disclosure Appendix

26 February 2016

Disclosure Appendix

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