

The China-U.S. Trade War and Future Economic Relations

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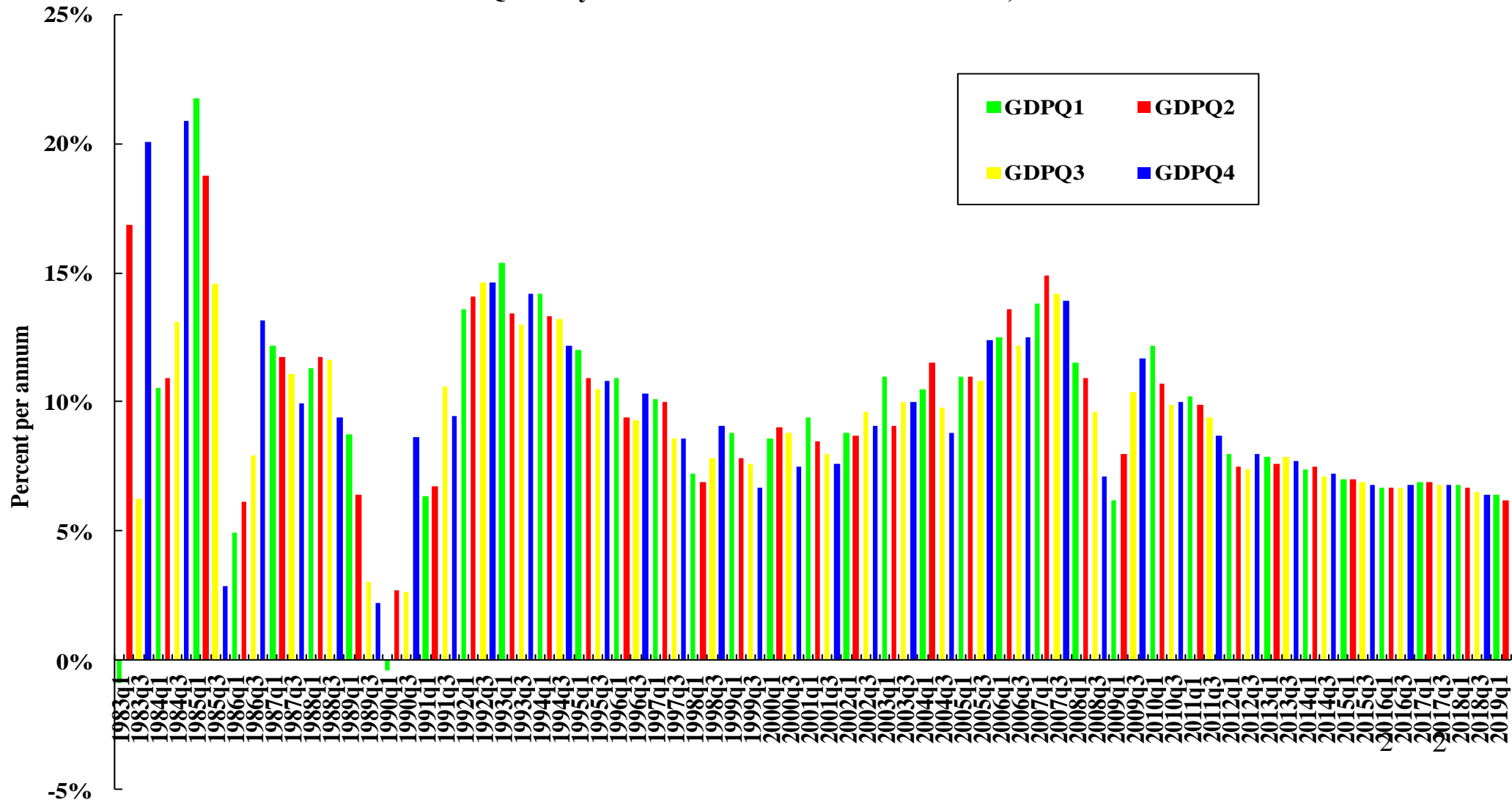
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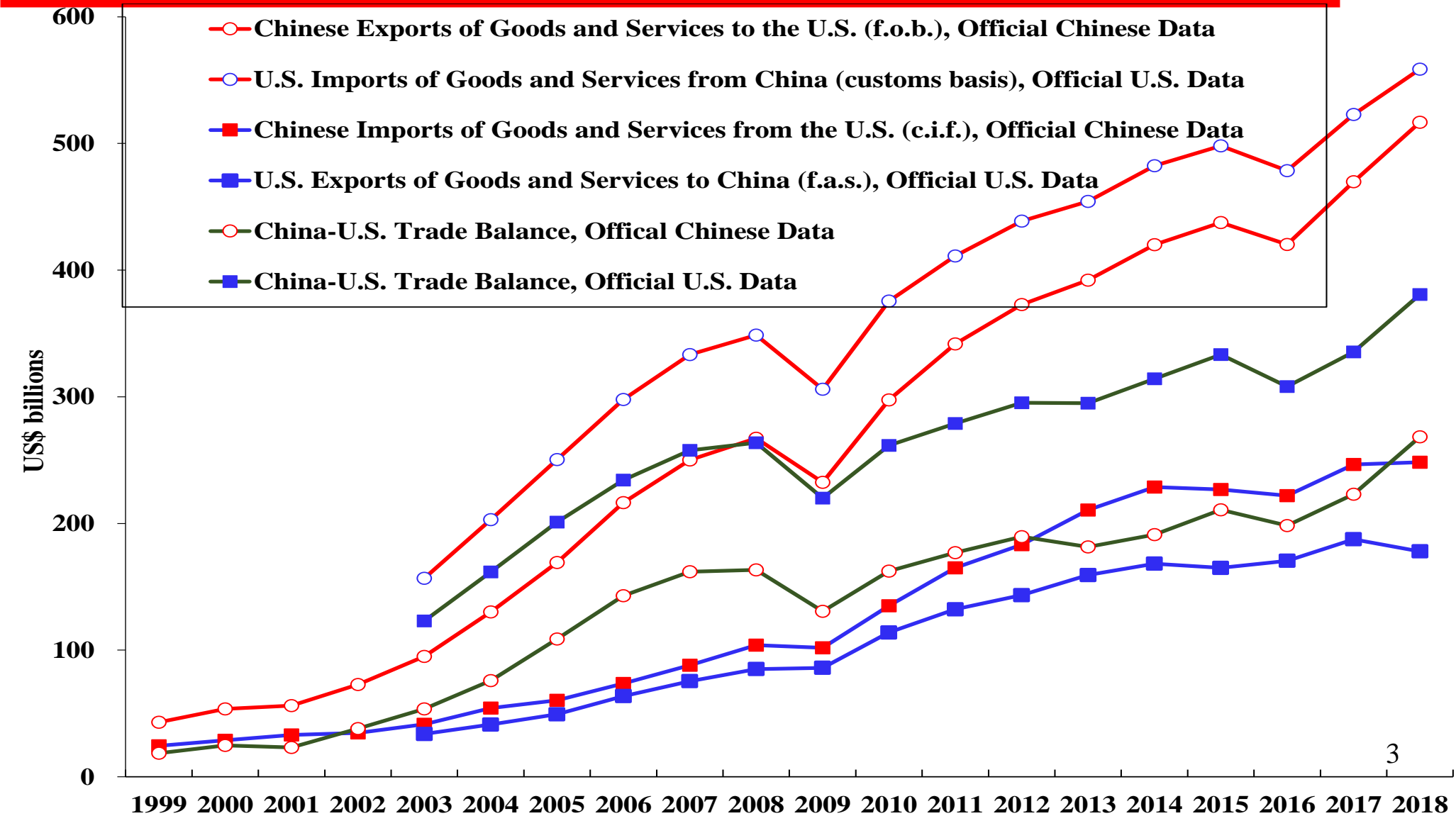
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Quarterly Rates of Growth of Chinese Real GDP, Y-o-Y

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The Different Measurements of the Bilateral Trade Balance



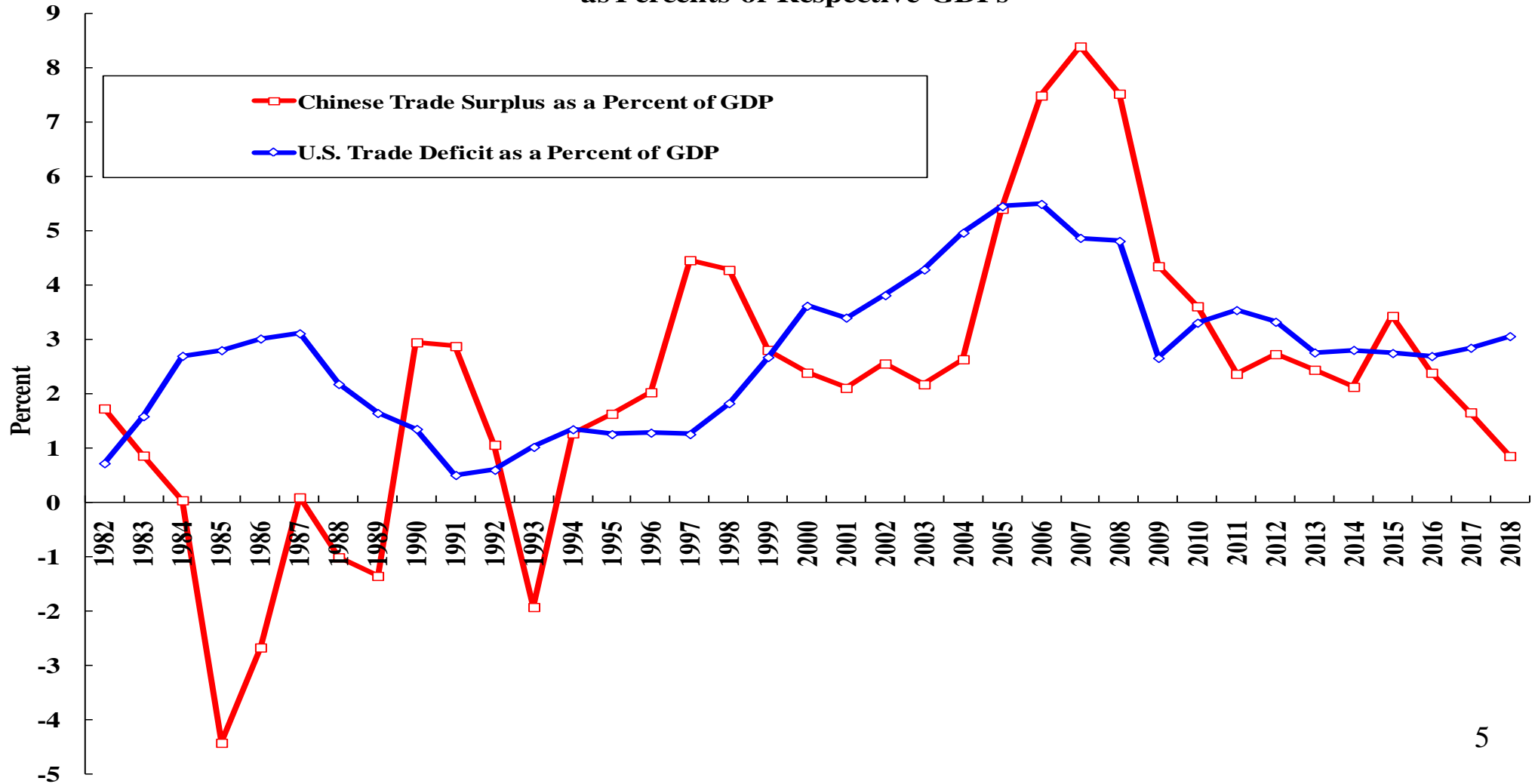
The Different Measurements of the Bilateral Trade Balance: A Summary

Summary of Different Measurements of the China-U.S. Trade Balance

Measurement	Official Chinese Estimates	Our Estimates	Official U.S. Estimates
Goods Only (FOB-CIF)	323.3		419.6
Goods Only FOB		356.4	
Goods and Services	268.4		380.8
Goods, including Re-Exports, FOB		350.9	
Goods, including Re-Exports, FOB, and Services (U.S. Data)		312.1	
Goods, including Re-Exports, FOB, and Services (Imports)		276.0	4

Chinese Trade Surplus and U.S. Trade Deficit in Goods and Services as Percents of Respective GDPs

Annual Chinese Trade Surplus and U.S. Trade Deficit in Goods and Services as Percents of Respective GDPs

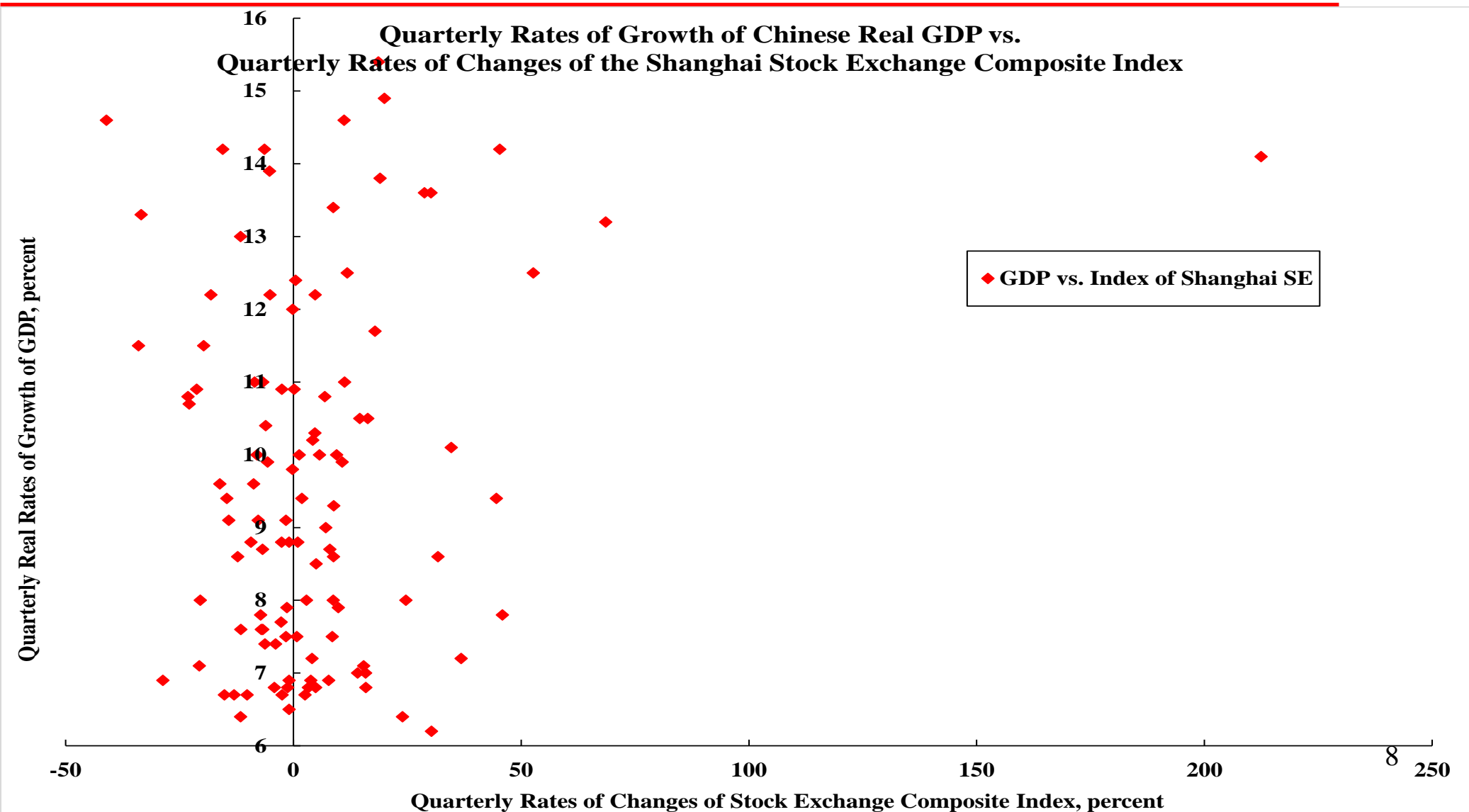


The Relative Benefits from the Bilateral Trade in Terms of Value-Added: A Summary

Summary of Comparisons of Relative Benefits

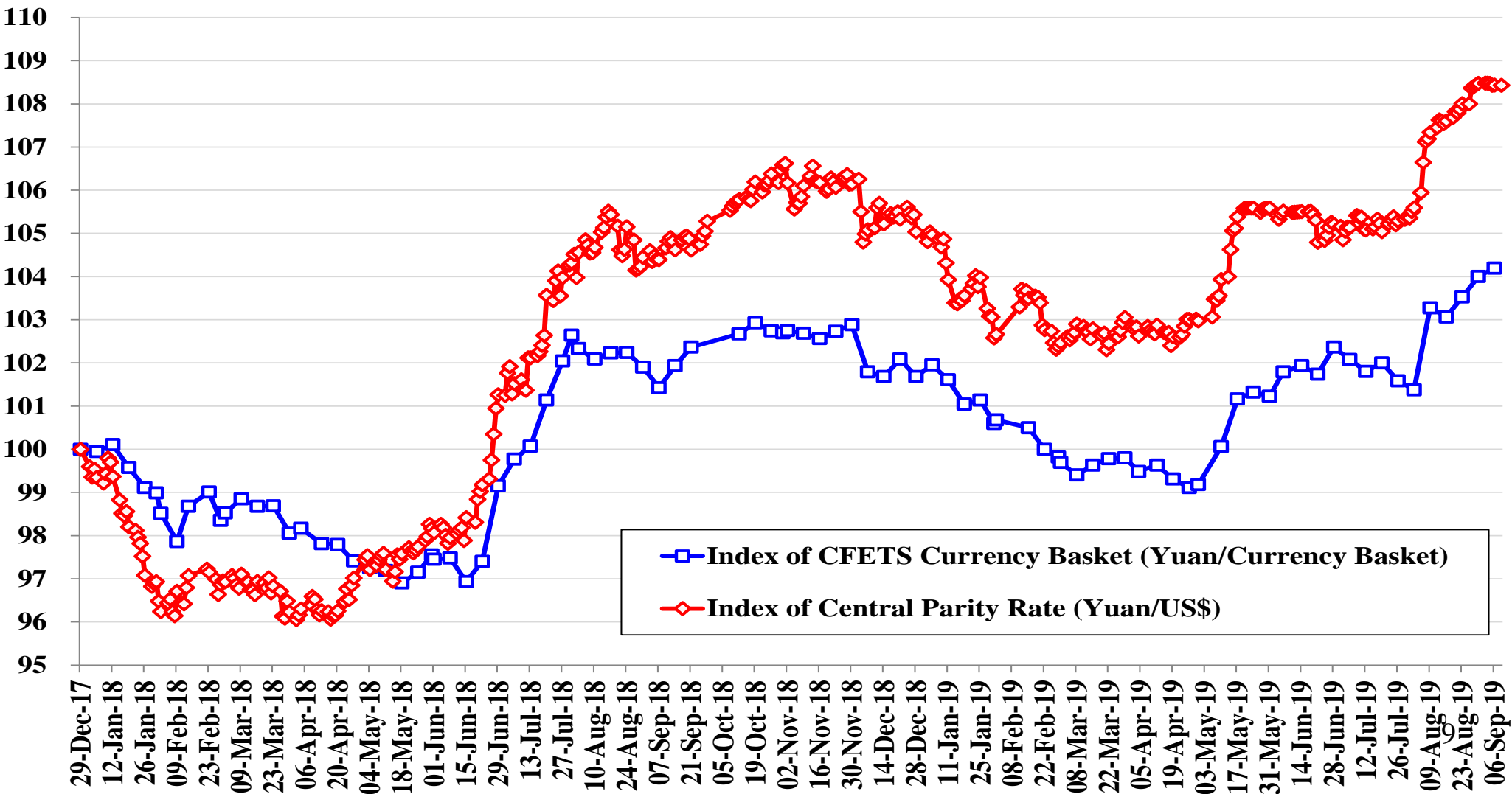
Measurement	China	The U.S.	Difference
Direct Value-Add	159.8	128.6	31.2
Indirect Value-Added	240.2	110.5	129.8
Total Value-Added	400.0	239.1	161.0

The Quarterly Rates of Growth of Chinese Real GDP versus the Chinese Stock Price Index

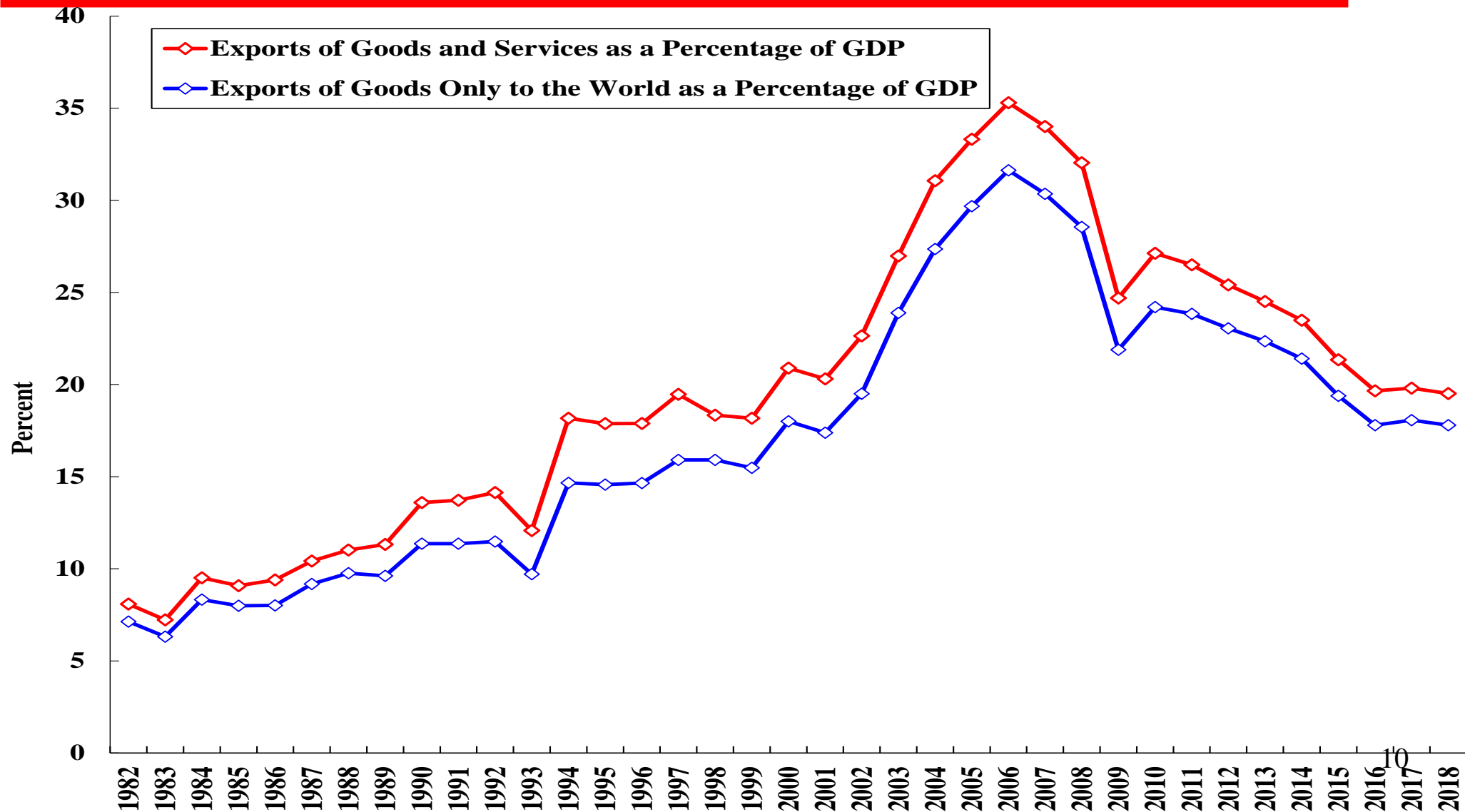


The RMB Central Parity Exchange Rate and the CFETS Index, 29/12/2017 to the Present

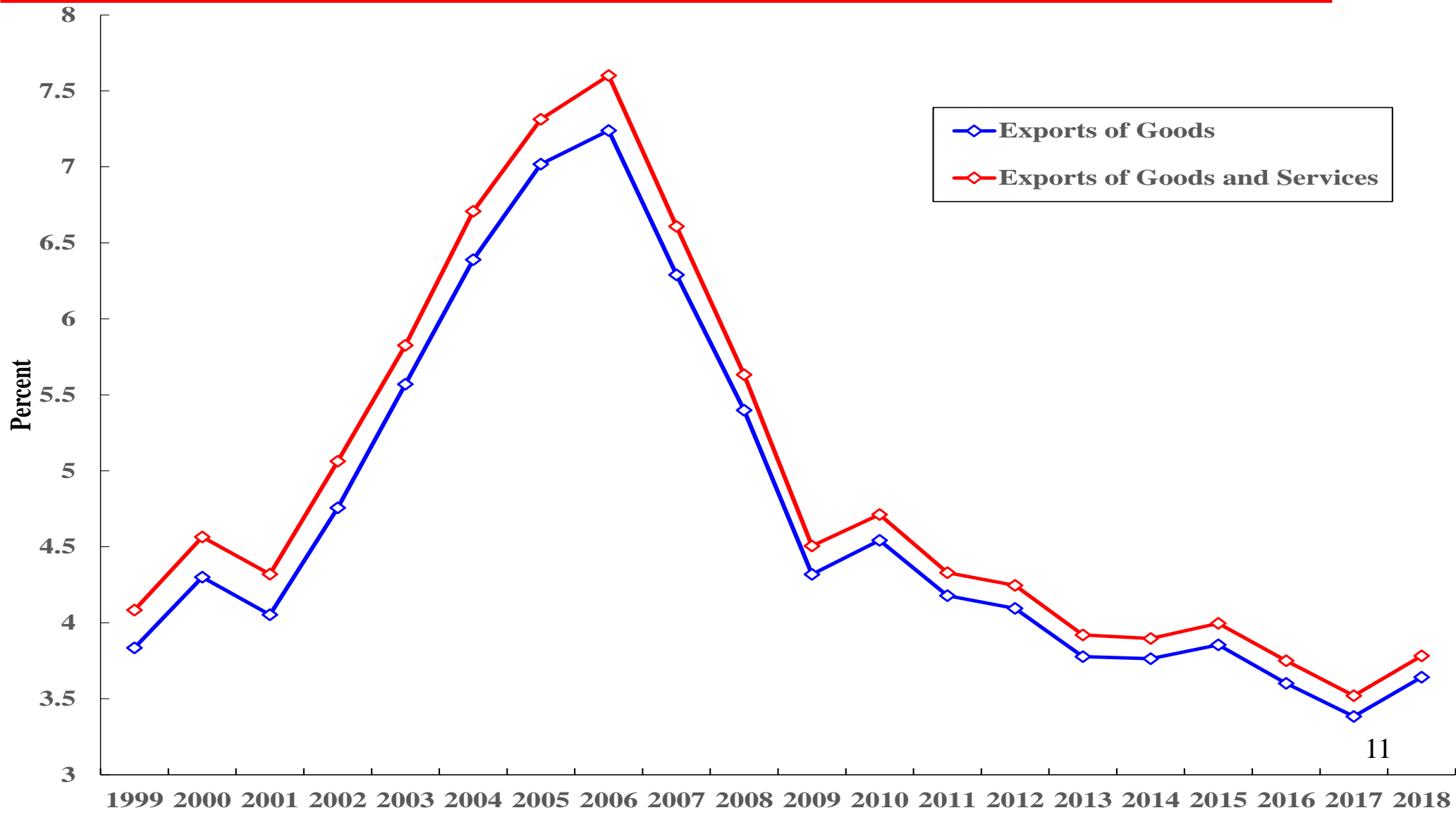
The Central Parity Rate and the CFETS Index, 29 Dec. 2017 = 100



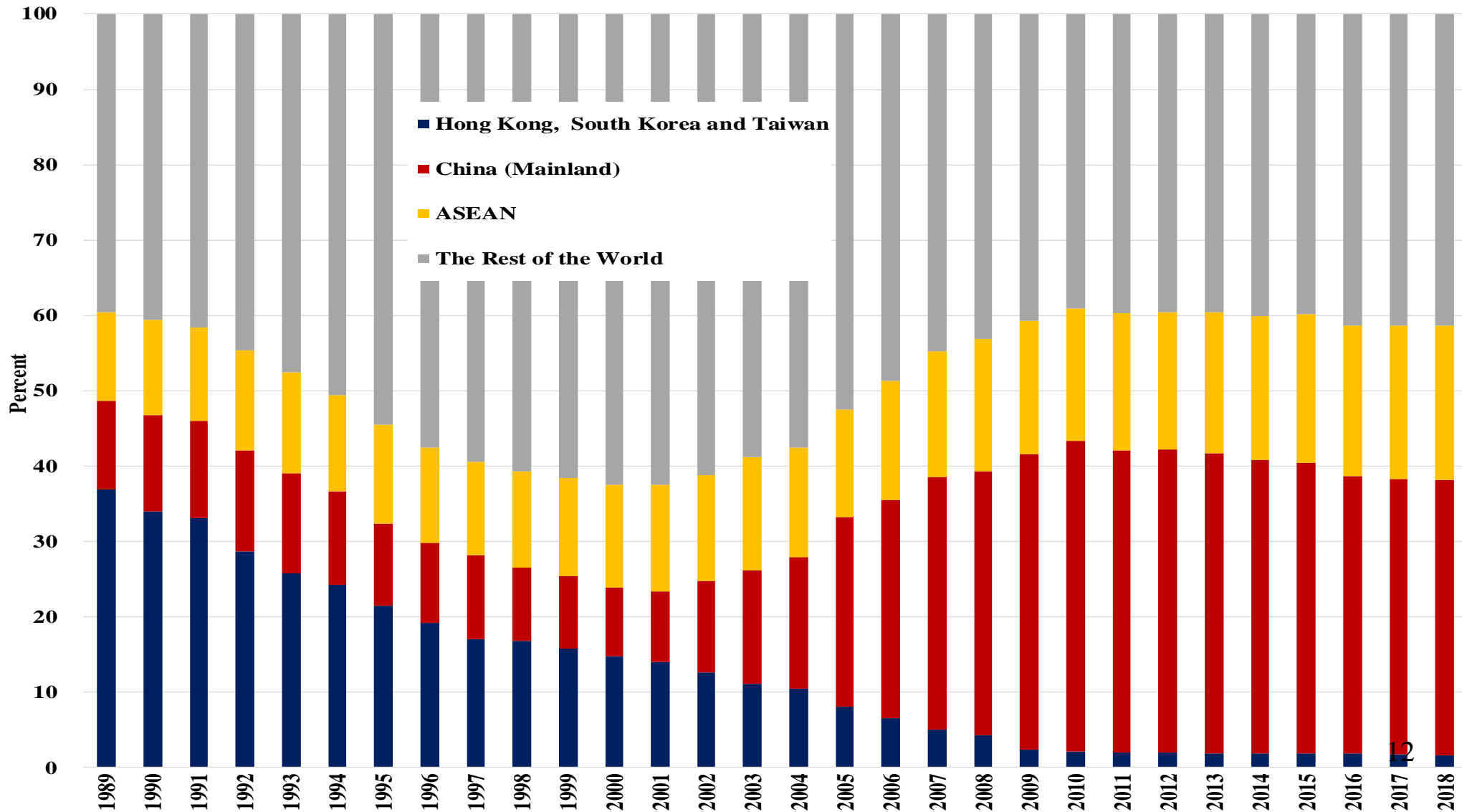
Chinese Exports of Goods and Services and Goods Only as a Percent of Chinese GDP



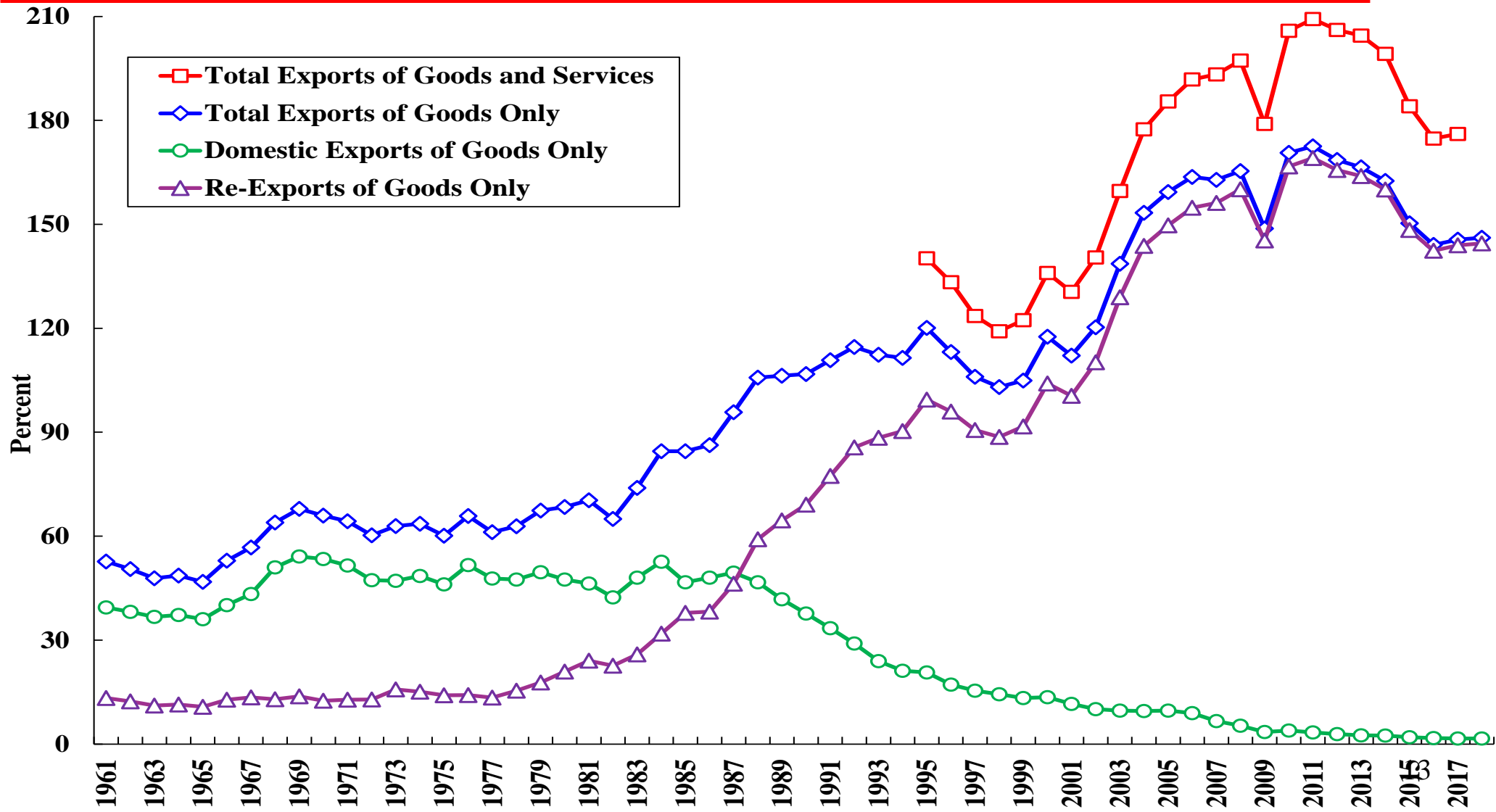
Chinese Exports of Goods and Services and Goods to the U.S. as Percent of Chinese GDP



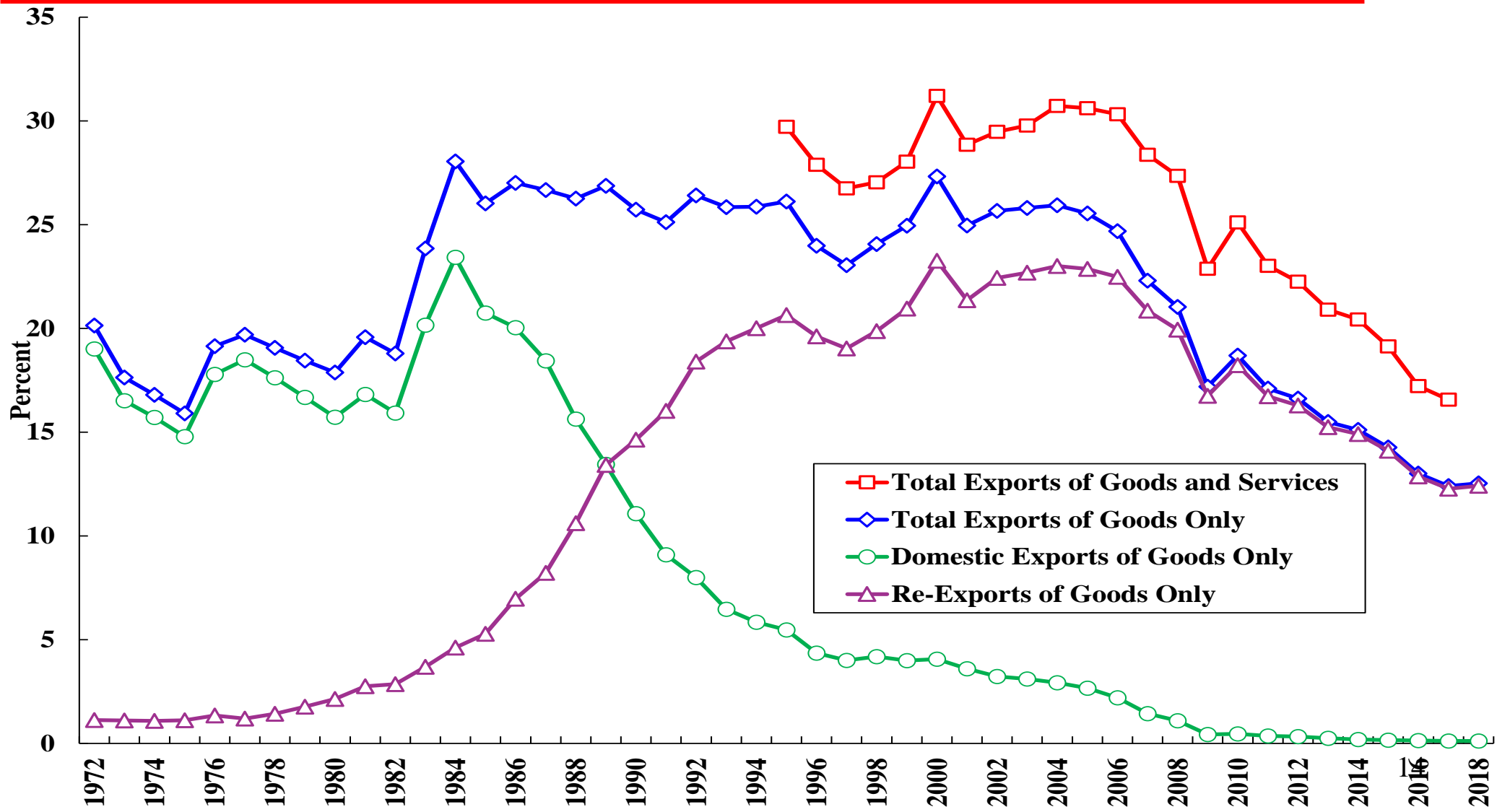
The Distribution of U.S. Apparel Imports by Countries and Regions of Origin



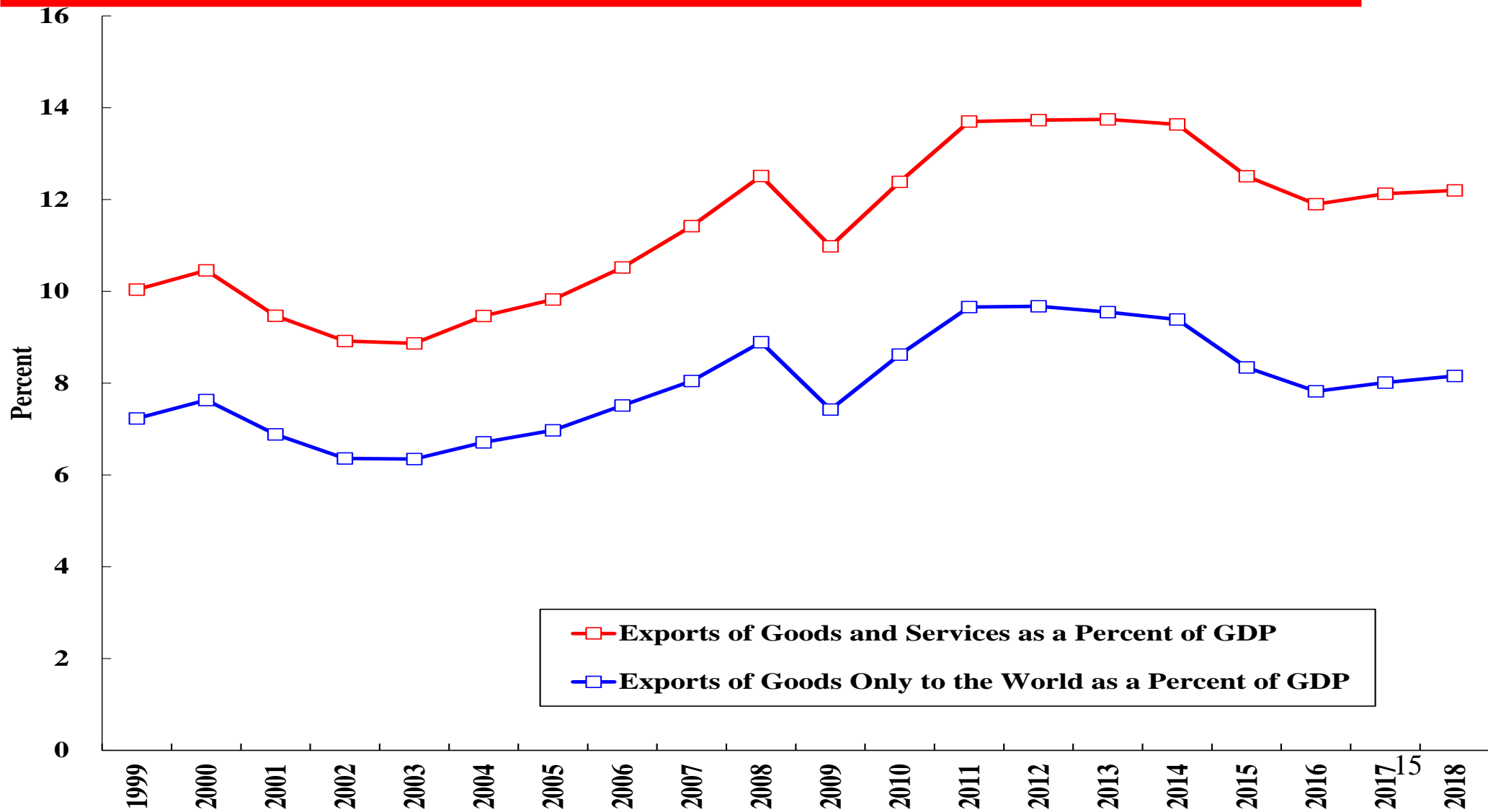
Exports to the World as Percent of GDP: Hong Kong



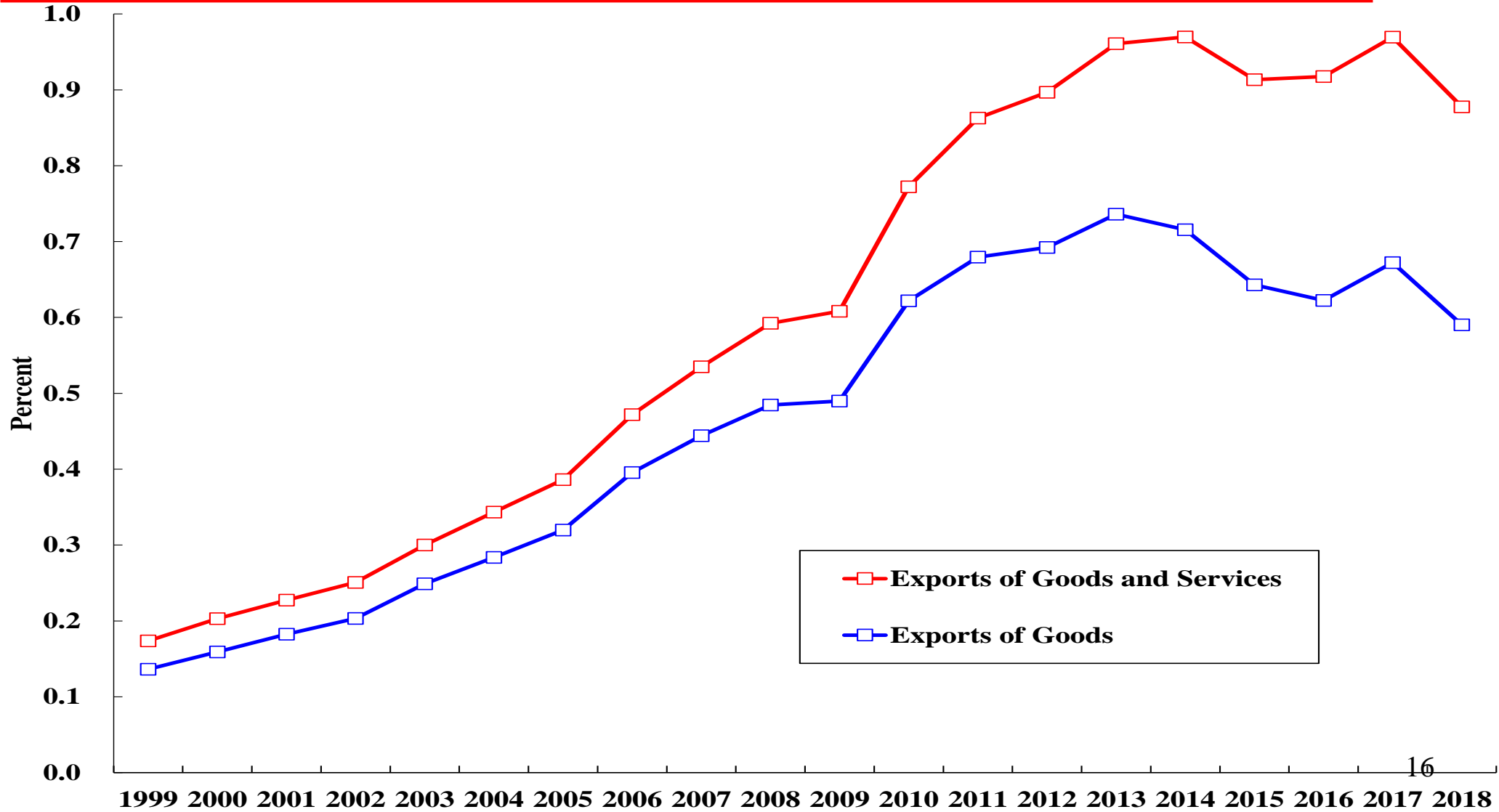
Exports to the U.S. as Percent of GDP: Hong Kong



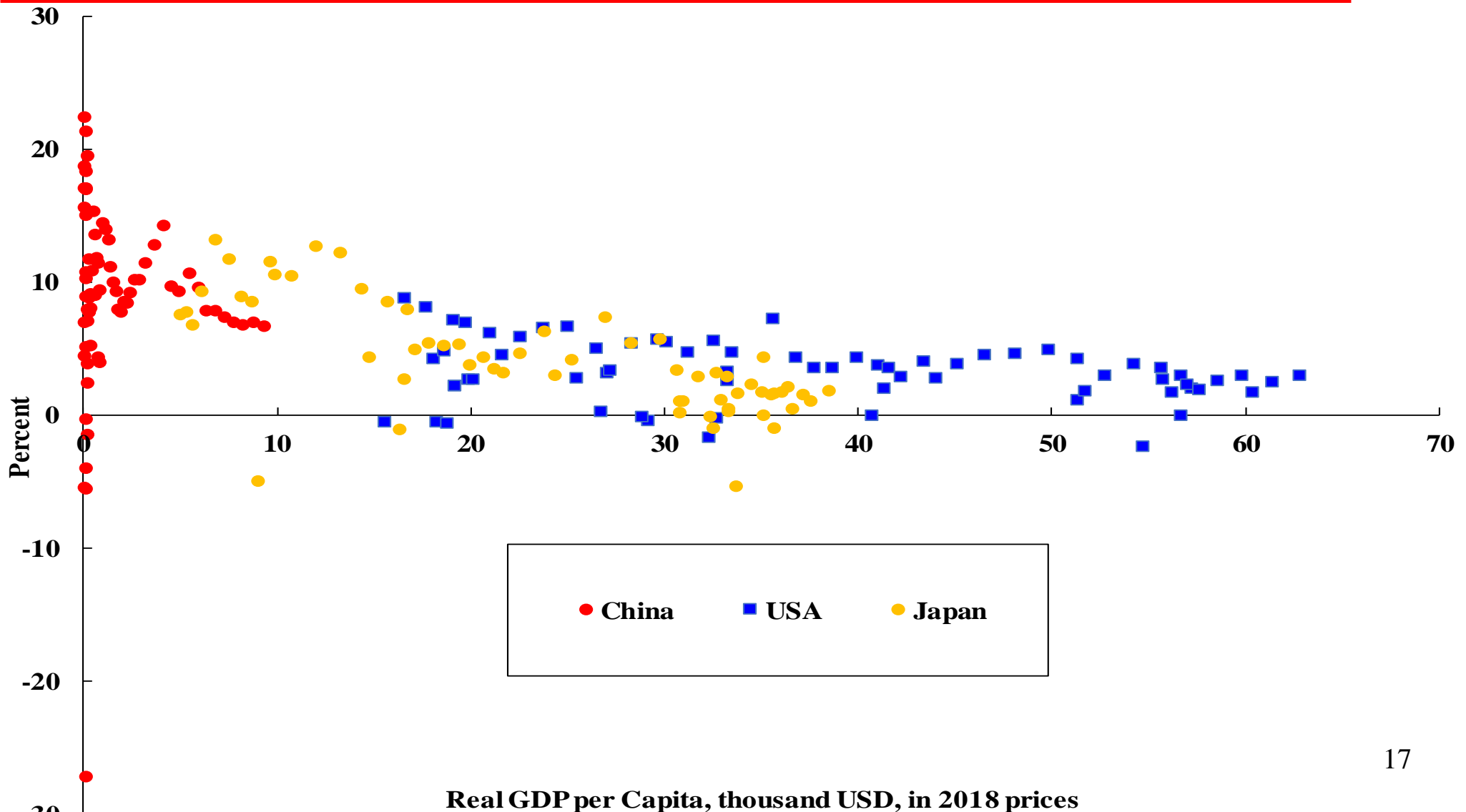
U.S. Exports of Goods and Services and Goods Only as Percent of U.S. GDP



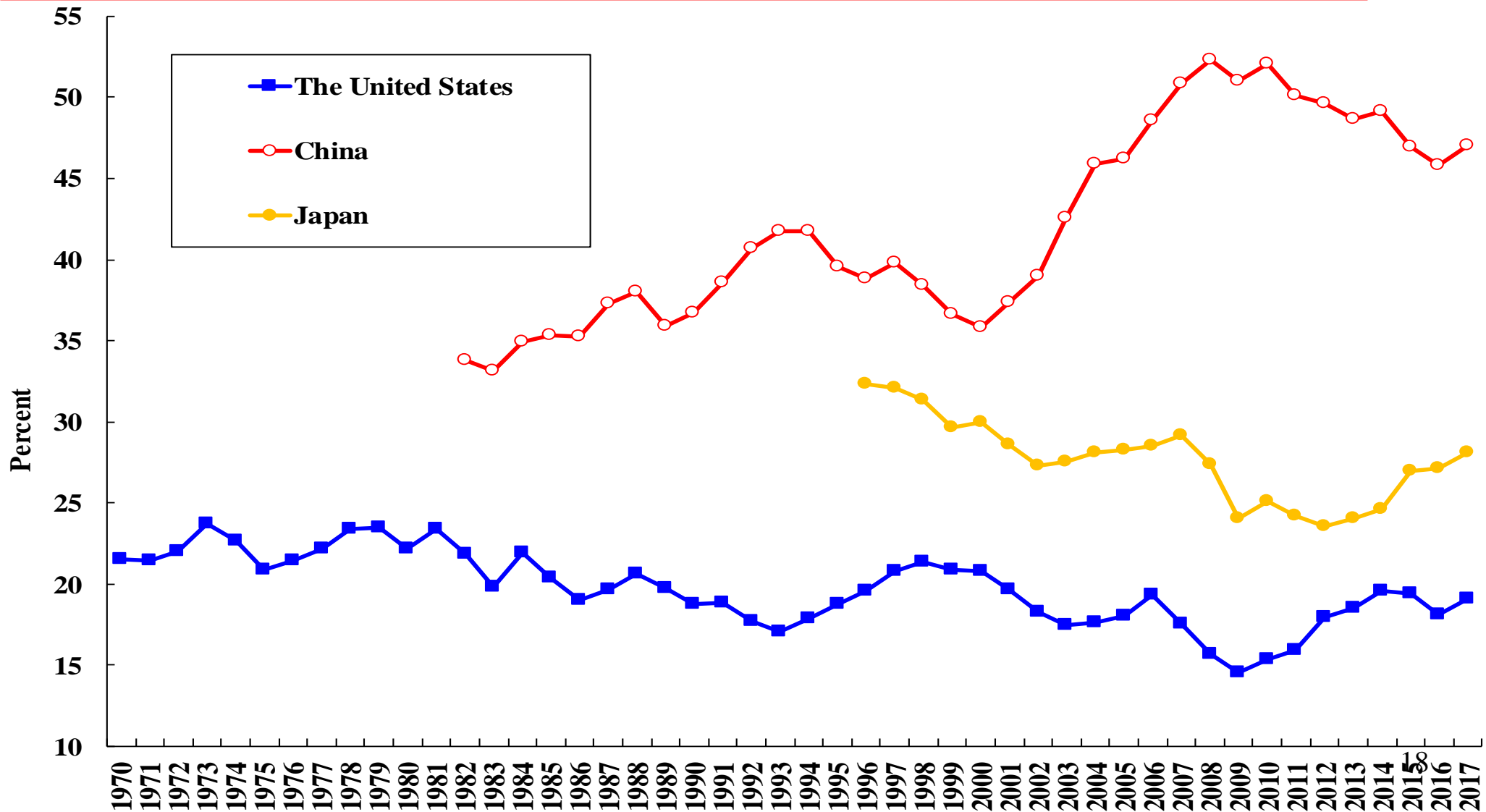
U.S. Exports of Goods and Services and Goods Only to China as Percent of U.S. GDP



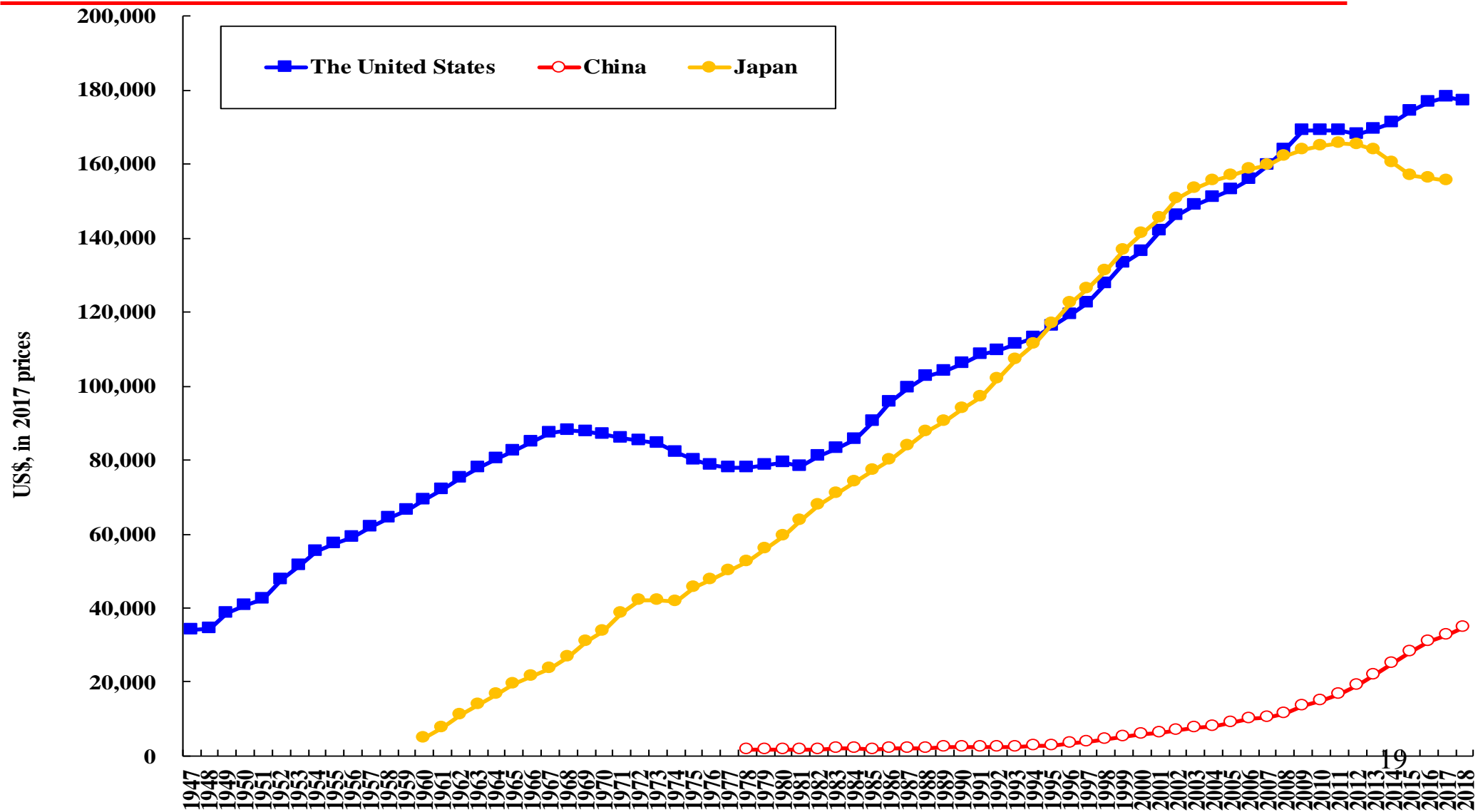
Growth Rate vs. Level of Real GDP per Capita (2018 tril. US\$): China, Japan and the U.S.



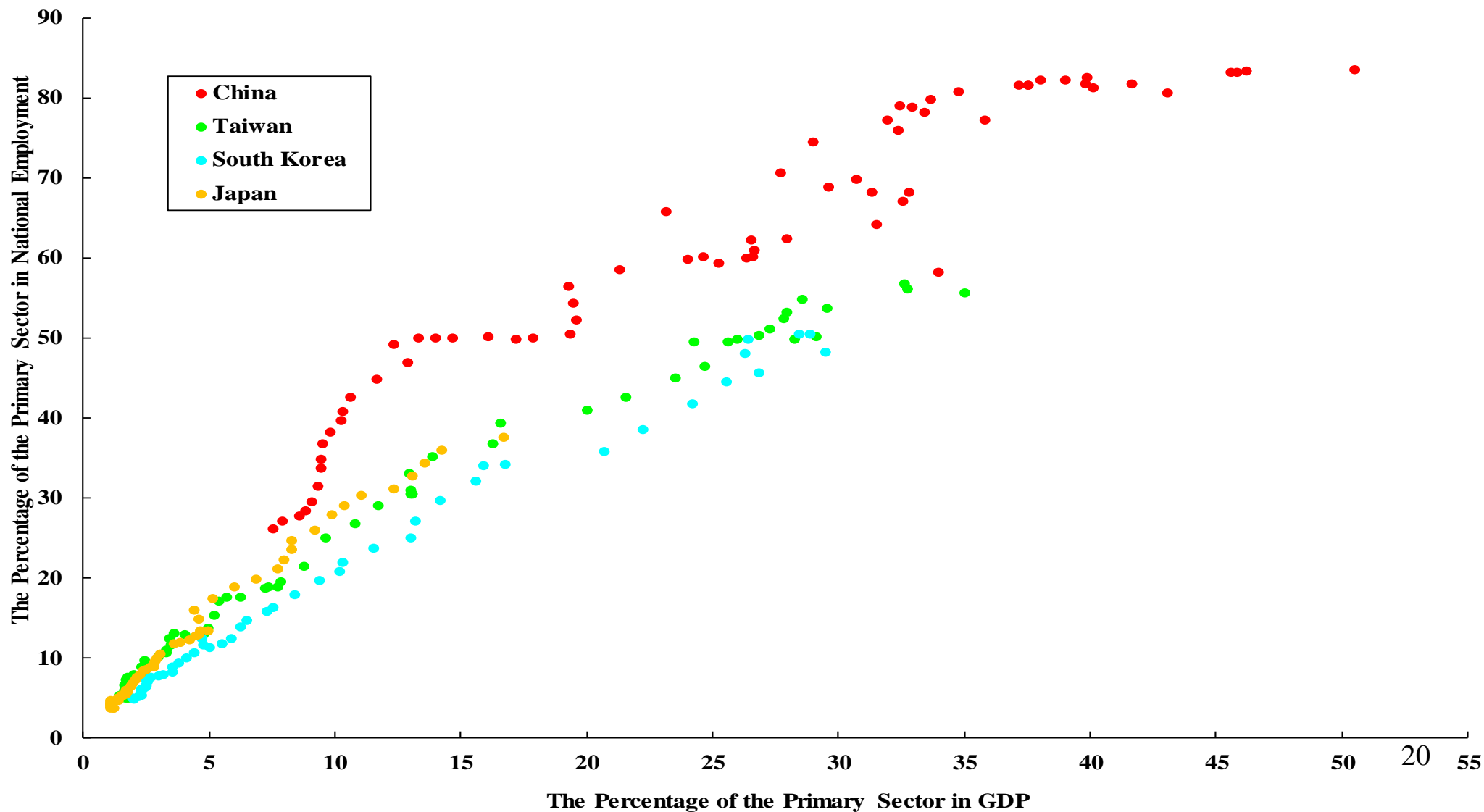
Comparison of National Savings Rates: China, Japan and the U.S.



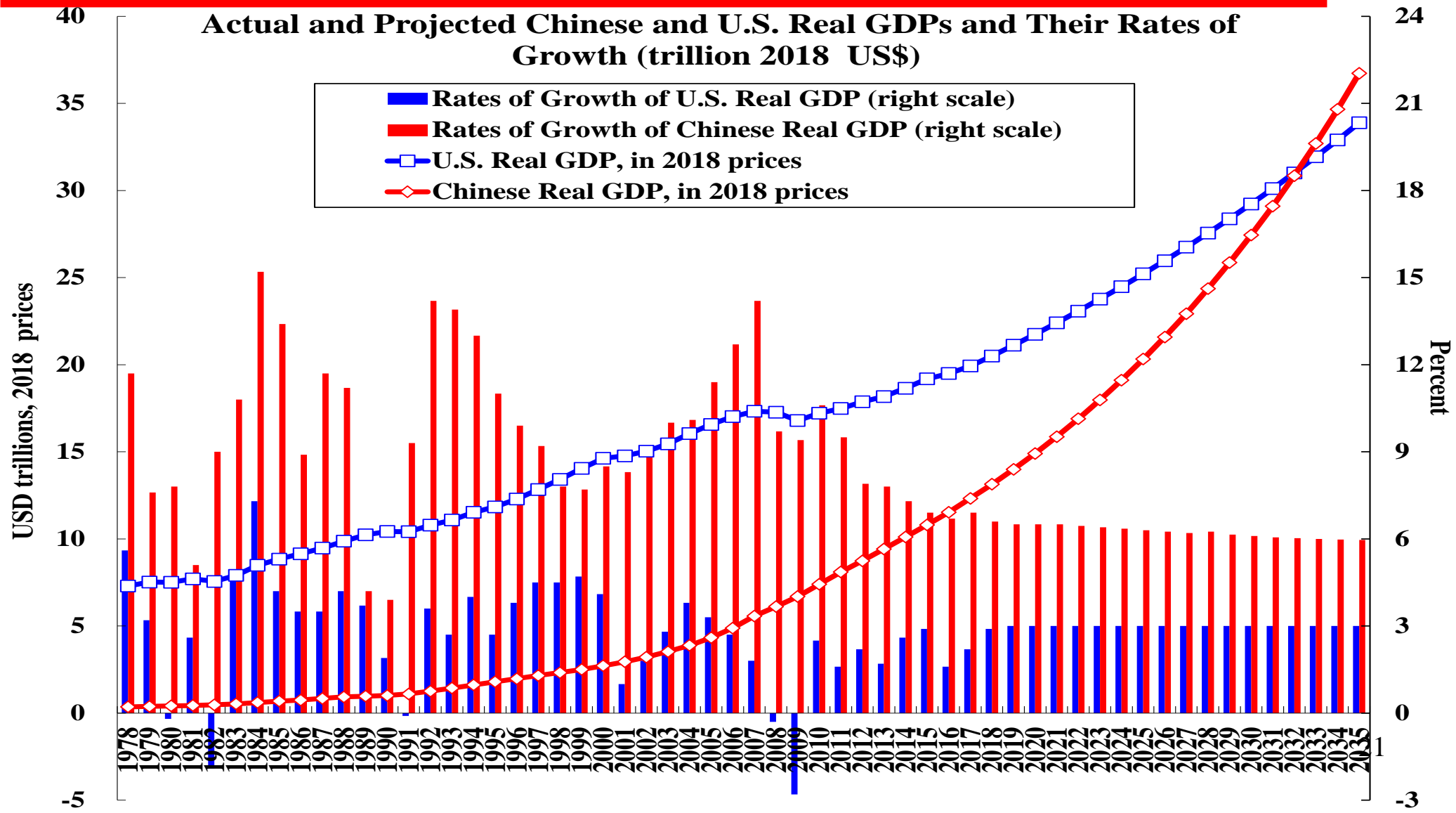
Comparison of Capital-Labour Ratios: China, Japan and the U.S.



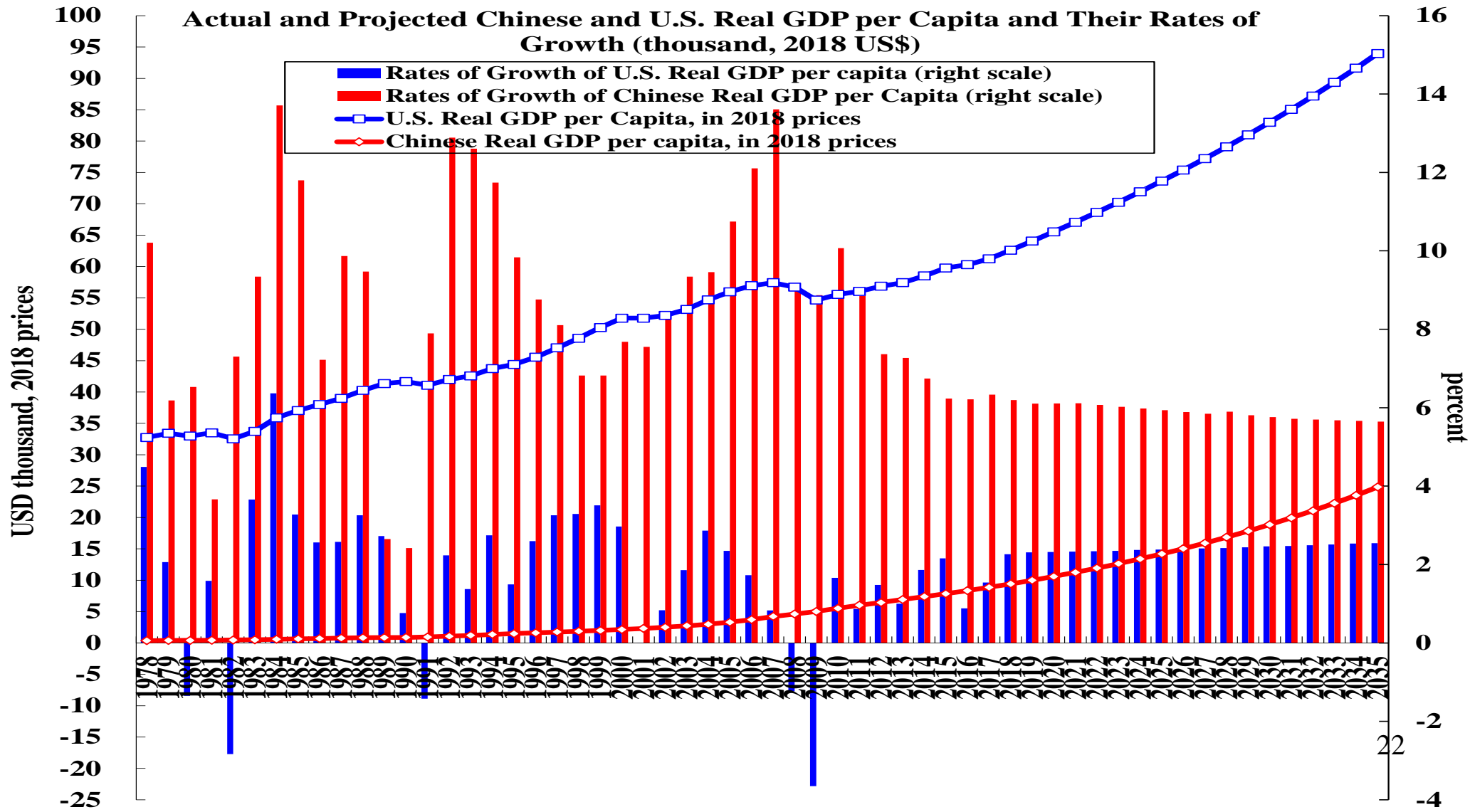
Scatter Diagram between the Shares of Employment and GDP of the Primary Sector



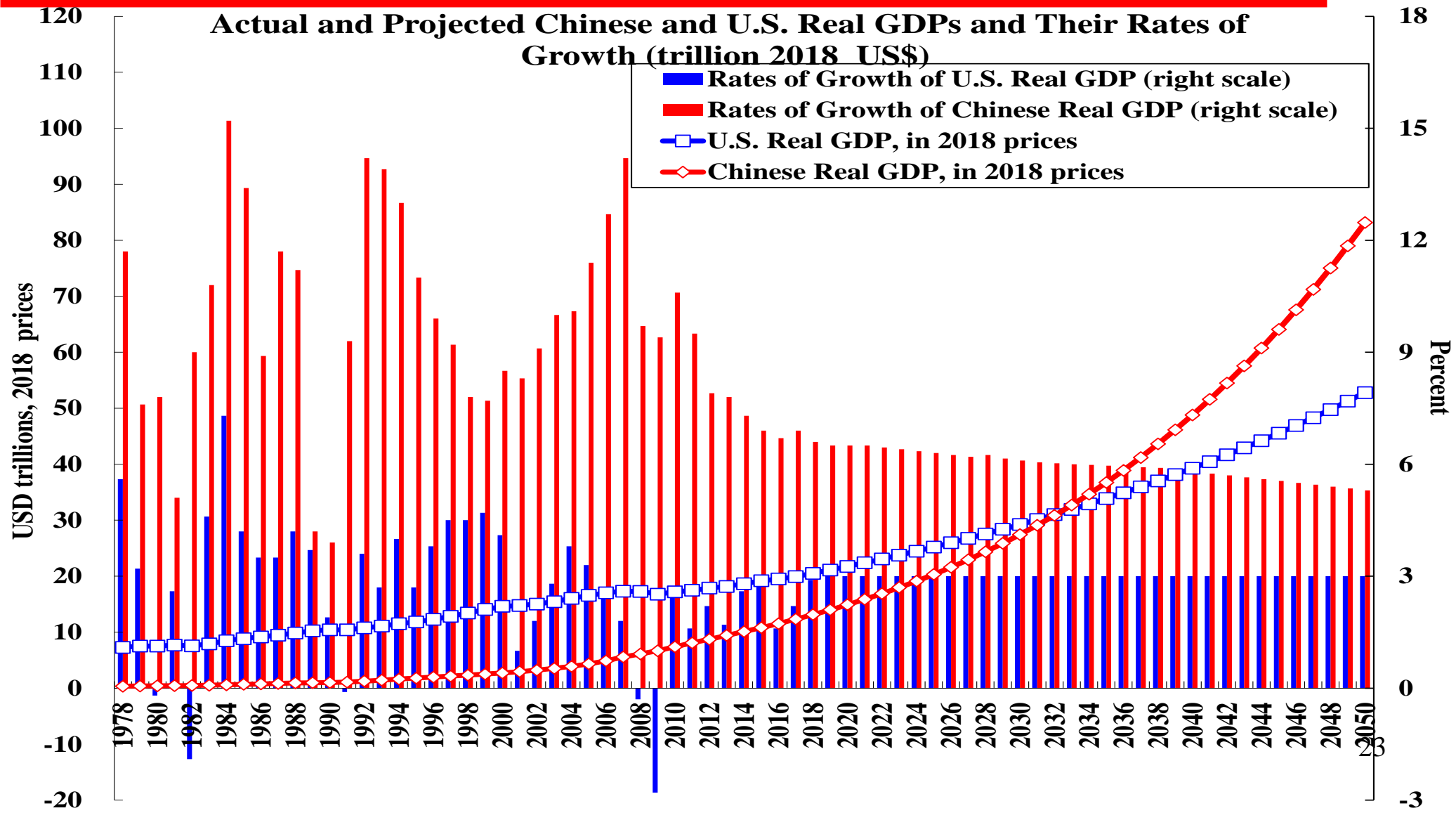
Actual and Projected Levels and Growth Rates of Chinese and U.S. Real GDP (2018 tril. US\$)



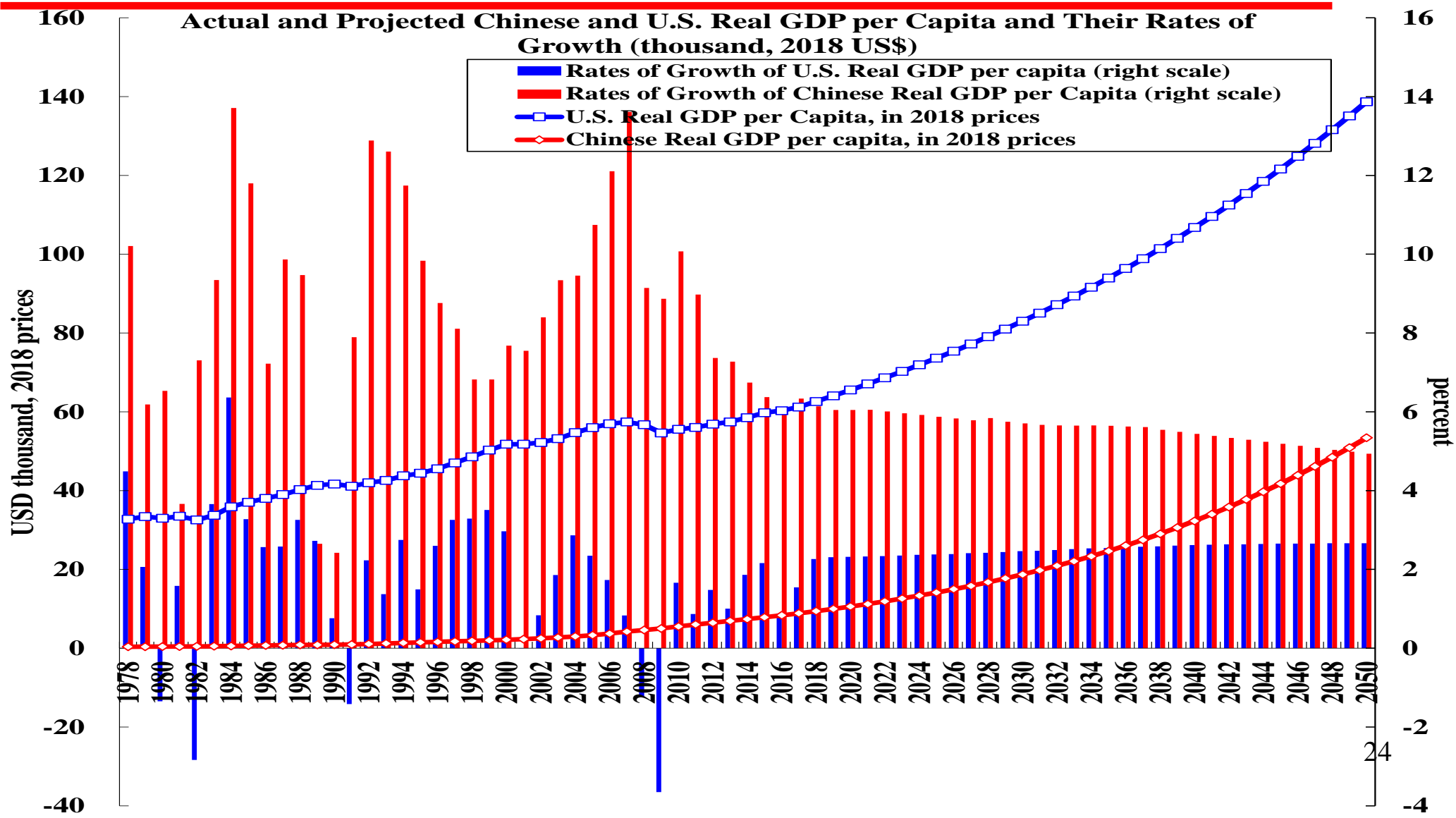
Actual and Projected Chinese and U.S. Real GDP/Capita and Their Annual Rates of Growth (1,000 2018 US\$ & %)



Actual and Projected Levels and Growth Rates of Chinese and U.S. Real GDP (2018 tril. US\$)

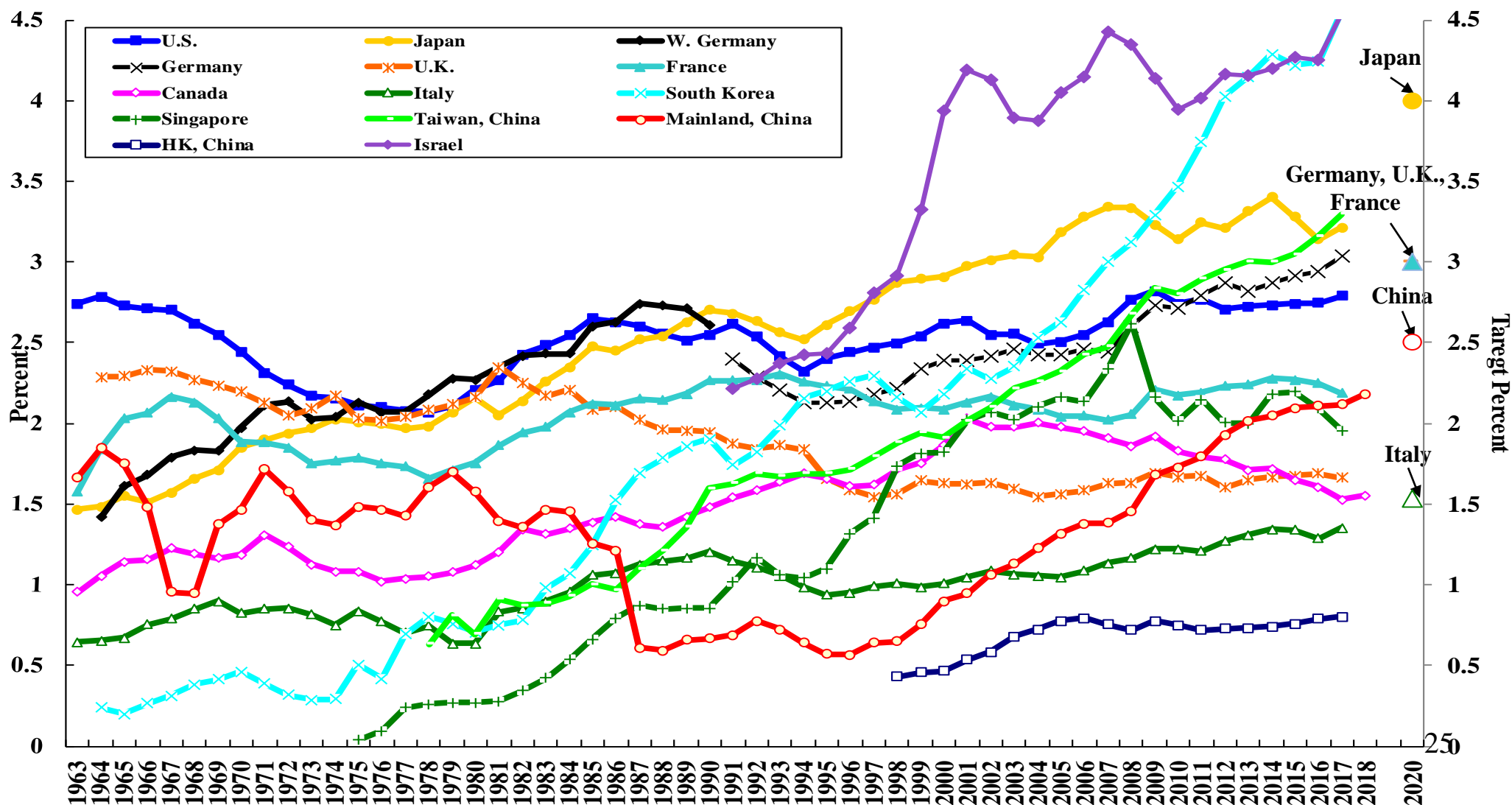


Actual and Projected Chinese and U.S. Real GDP/ Capita and Their Rates of Growth (1,000 2018 US\$)

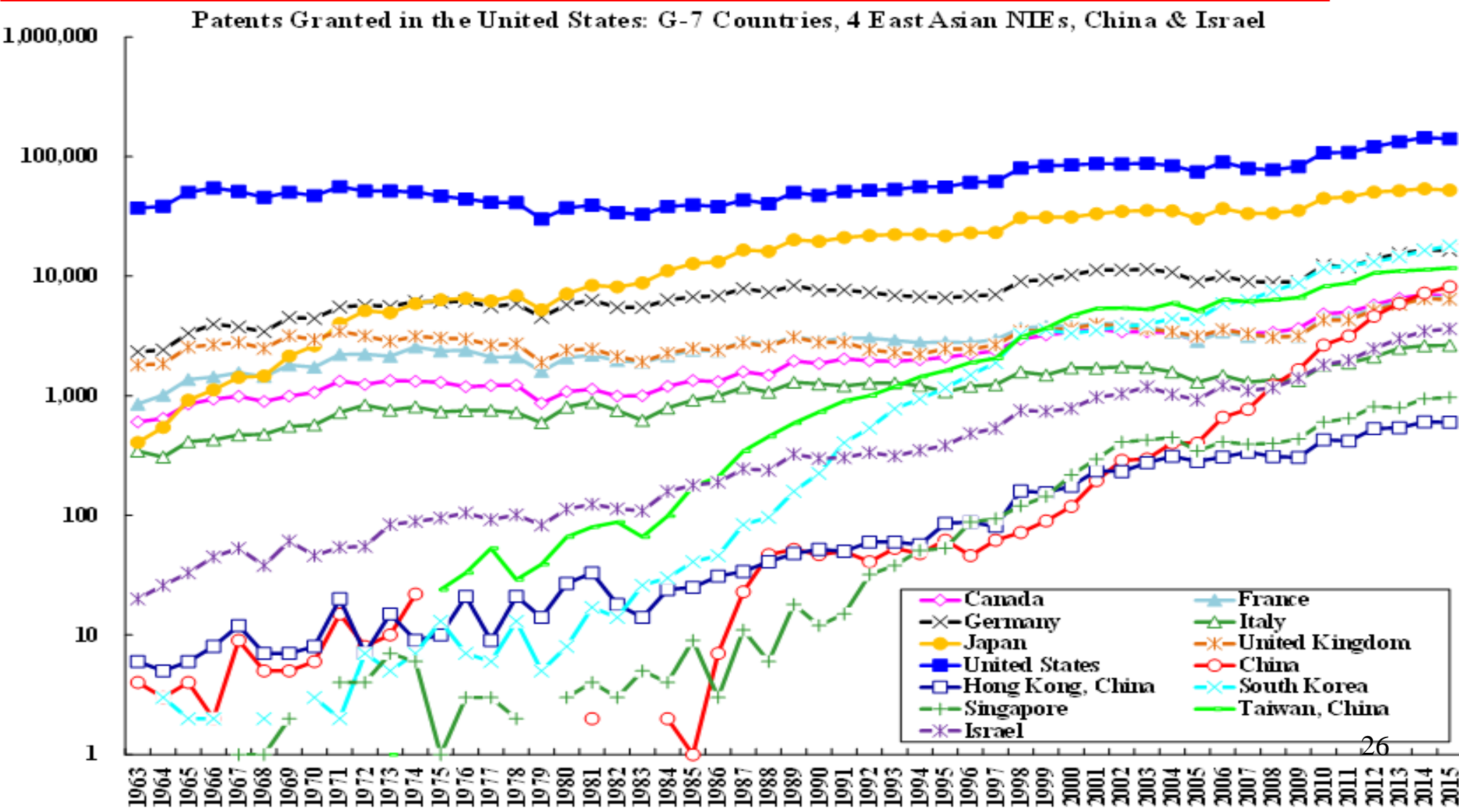


R&D Expenditures as a Share of GDP and Their Target Levels at 2020: G-7 Countries, 4 East Asian NIEs, China & Israel

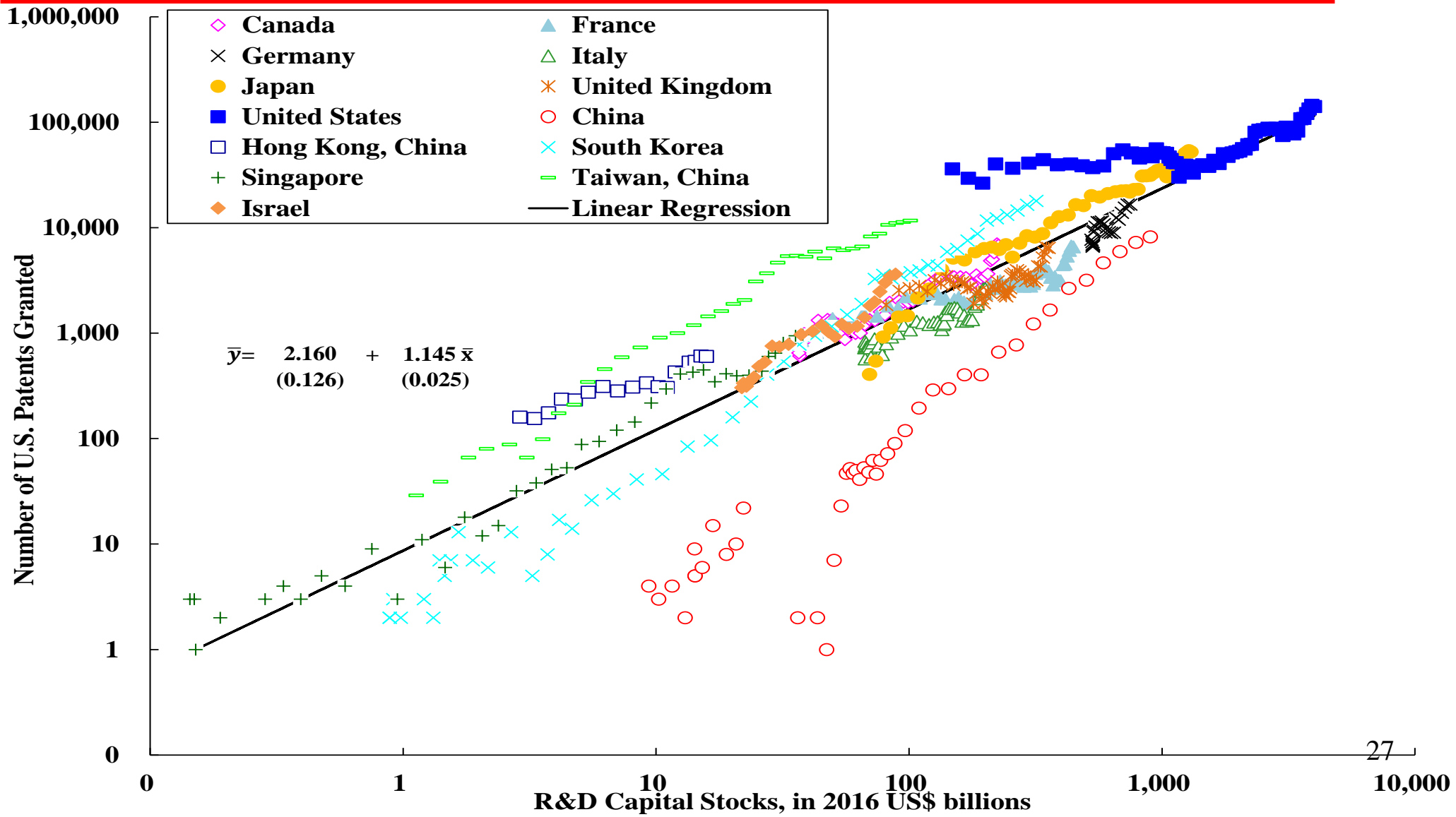
R&D Expenditures as a Ratio of GDP: G-7 Countries, 4 East Asian NIEs, China & Israel



Patents Granted in the United States: G-7 Countries, 4 East Asian NIEs, China & Israel

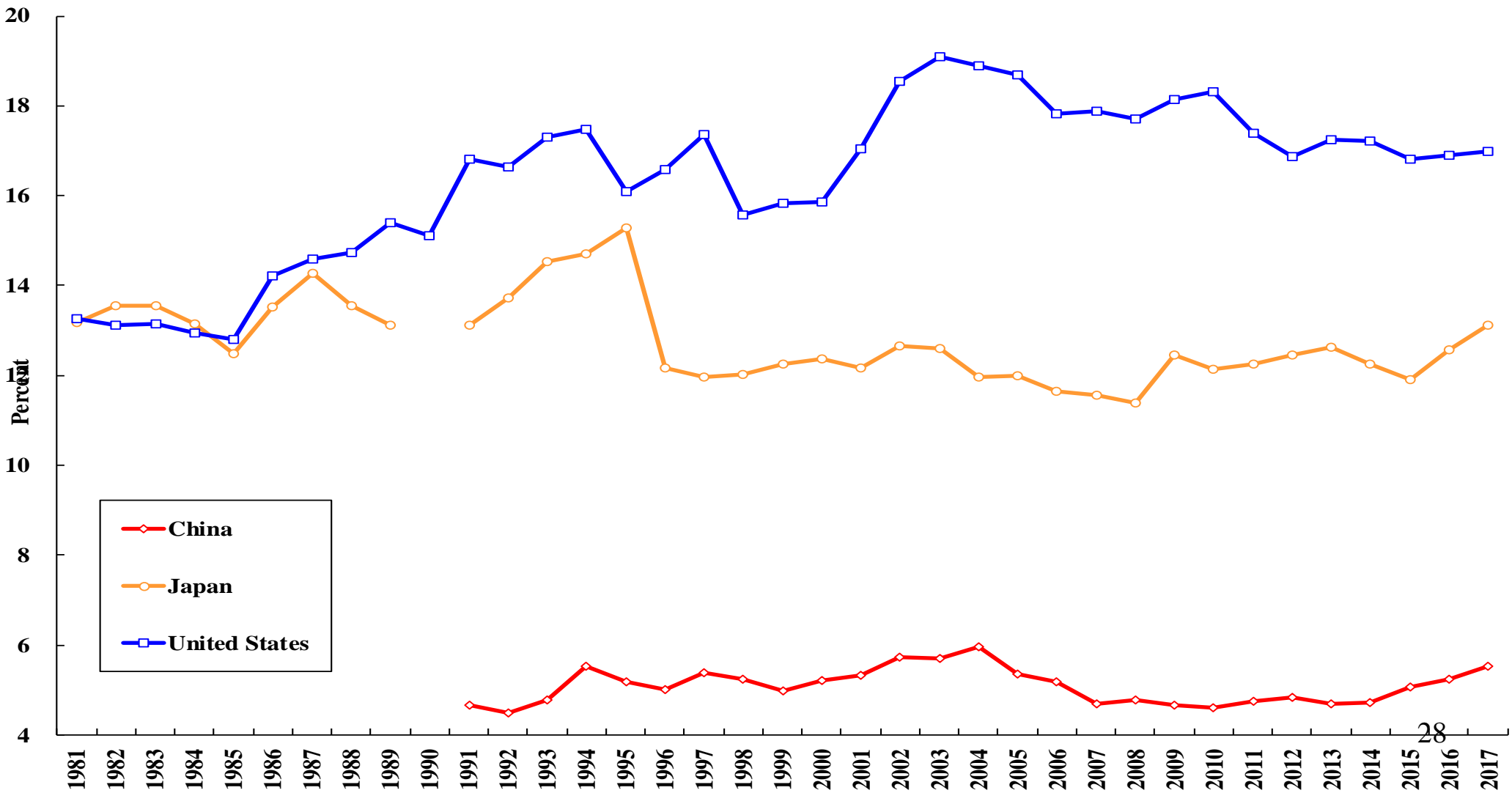


U.S. Patents Granted and R&D Capital Stocks: G-7 Countries, 4 EANIEs, China & Israel

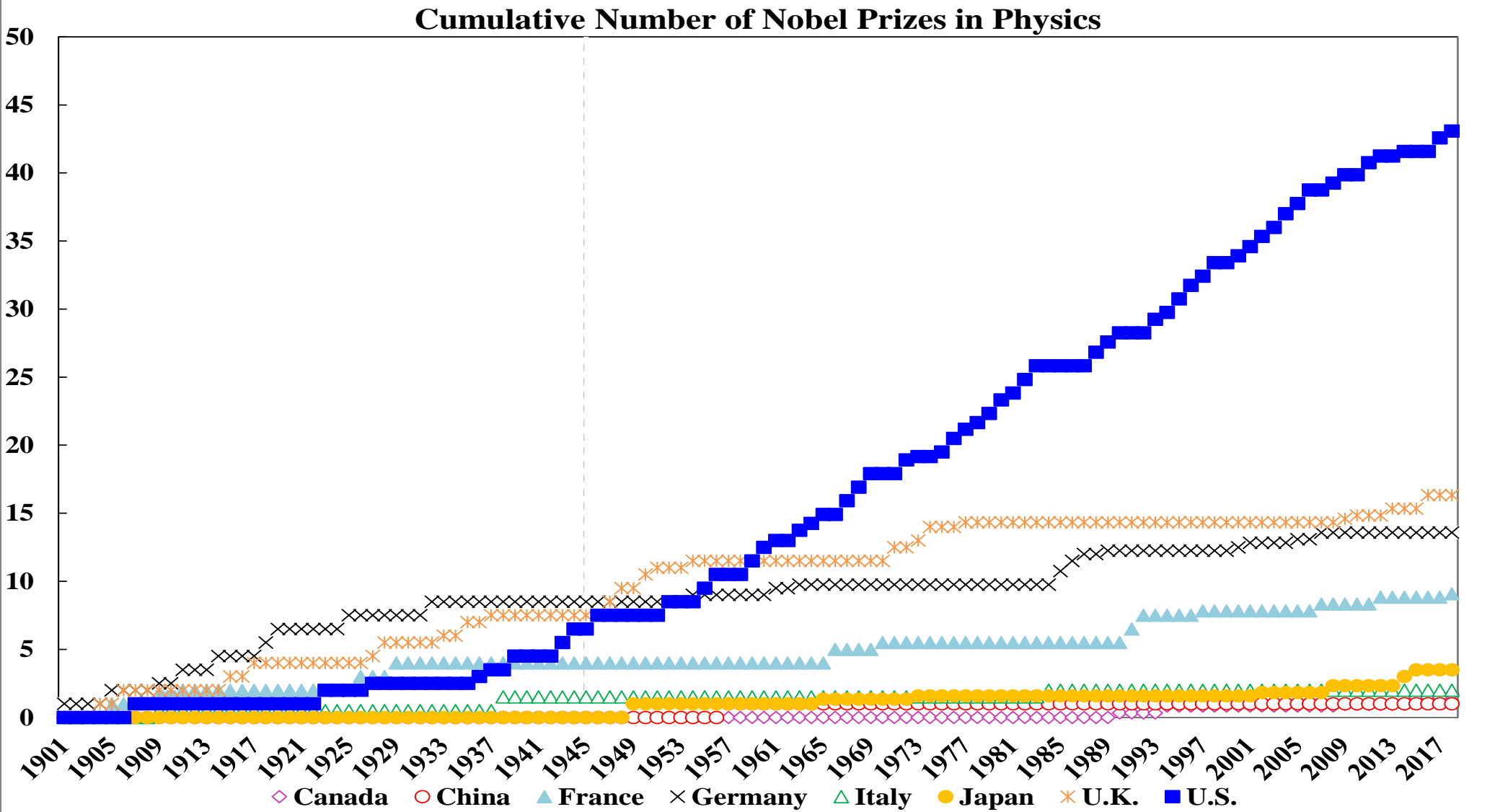


Basic Research Expenditure as a Share of Total R&D Expenditure: China, Japan and the U.S.

Basic Research Expenditure as a Percentage of Gross Expenditure on R&D



Technological Competition: Cumulative Number of Nobel Laureates in Physics



Economic Complementarities between China and the U.S.

	China			U.S.		
	2015	2016	2017	2015	2016	2017
Population, thousands persons	1,374,620	1,382,710	1,390,080	321,323	323,668	325,983
Arable land, thousand hectare	134,999	134,921	134,863	152,263	152,263	
Tangible capital stock, 2016 prices, US\$ billions	21,268	23,405	25,351	26,953	27,657	28,061
Real R&D capital stock, 2016 prices, US\$ billions	898	1,015	1,139	4,005	4,106	4,205
Working-age population (ages 15-64), persons	996,030,376	995,072,896	993,792,919	212,357,568	213,254,816	213,911,387
Sources:						

Population, yearend for China, from National Bureau of Statistics of China (NBSC) and midyear for the U.S., the U.S. Bureau of Economic Analysis (BEA).

Arable land, for China, from the National Bureau of Statistics of China, and for the U.S. from the Food and Agriculture Organisation of the United Nations

Tangible capital stock, estimated by Lawrence J. Lau from national income accounts data.

Real R&D capital stock, estimated by Lawrence J. Lau and Yanyan Xiong (2018).

Working-age population, from the World Bank, World Development Indicators (WDI) Database.

Economic Complementarities between China and the U.S.

	China			U.S.		
	2015	2016	2017	2015	2016	2017
Arable land per capita, hectare	0.098	0.098	0.097	0.474	0.470	
Real capital stock per capita, in 2016 prices, US\$	15,472	16,927	18,237	83,880	85,448	86,080
Real R&D capital stock per capita, in 2016 prices, US\$	654	734	819	12,463	12,685	12,900
Working age population per						

Concluding Remarks

- ◆ The competition between China and the U.S., whether friendly or unfriendly, can be assumed to be an ongoing and long-term one. It is the “new normal”. The trade dispute is only a symptom of the potential possible conflicts between the two countries.
- ◆ Prof. Graham Allison, of the Kennedy School of Government at Harvard University, has written a book titled **Destined for War**, about the inevitability of a war between China and the U.S. As a rising power challenges the dominance of an established power, the established power is likely to respond with force. He refers to this “inevitability” as the “Thucydides Trap”, drawing on the book by Thucydides, **History of the Peloponnesian War**, a war in ancient Greece (431-404 B.C.) between Athens and Sparta.³²

Concluding Remarks

- ◆ The Chinese economy grew 6.3% in 2019H1, it should be able to achieve a real rate of growth of at least 6% for 2019 as a whole.
- ◆ Regardless of the ultimate outcome of the China-U.S. trade war, the Chinese economy is poised to grow at an average annual rate of between 5% and 6% over the next couple of decades.
- ◆ The U.S. economy is projected to grow at 3% per annum during the same period.
- ◆ The Chinese economy is likely to surpass the U.S. economy in terms of aggregate real GDP at market prices in the early 2030s.
- ◆ However, Chinese real GDP per capita will lag behind that of the U.S. until at least the end of the 21st Century.

Concluding Remarks

- ◆ In the long run, if China and the U.S. cooperate and work together, many global problems such as prevention of climate change, denuclearisation, and the economic development of Africa, can be solved.
- ◆ China and the U.S. can both collaborate and compete in finding cures for diseases such as cancer and Alzheimer's disease, and every country in the world will benefit from it.
- ◆ The U.S. can invite China to participate in the exploration of Mars and share in the cost, which has been estimated to be hundreds of billions of U.S. dollars.
- ◆ If the two countries compete in a friendly way, much innovation is possible, as in the competition to build the fastest super-computer. The two countries should aim to become **competitive partners!**