China and the Global Economy

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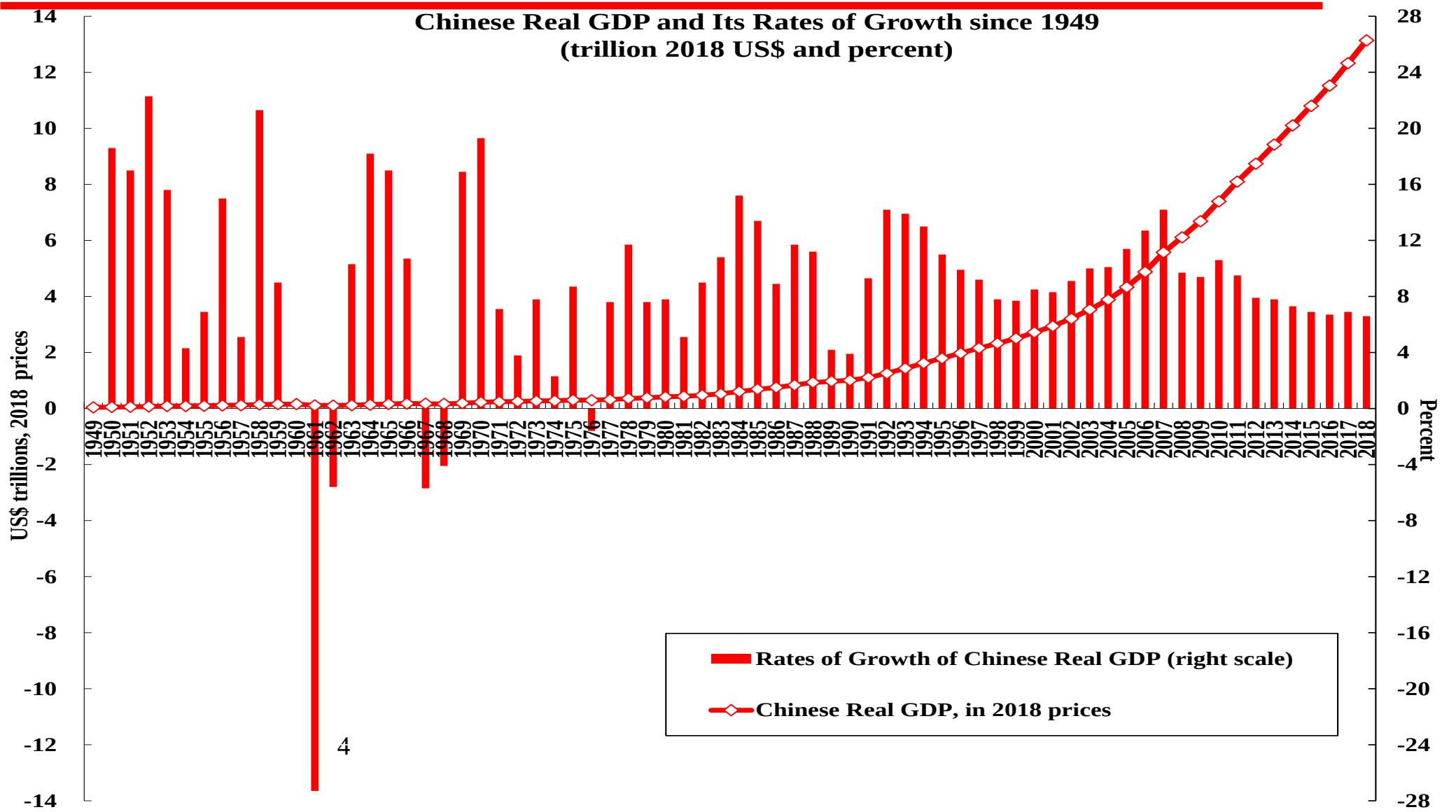
Outline

- Introduction—The Current State of the Chinese Economy
- Global Economic Trends
- The Future of Economic Globalisation
- The China-U.S. Trade War
- Projections of the Future
- Concluding Remarks

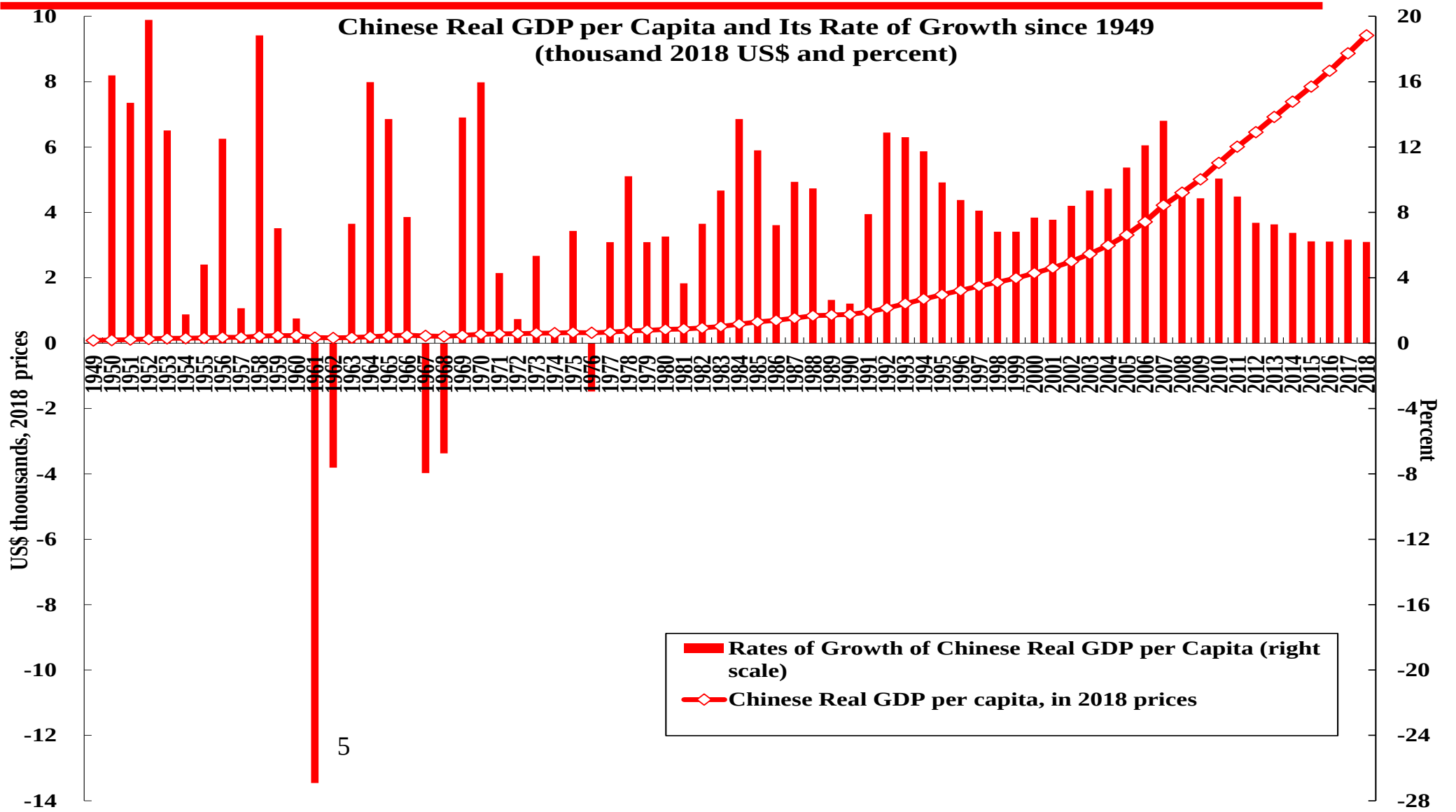
Introduction

- The Chinese economy has been growing without interruption at an average annual real rate of almost 10 percent since 1978, even though it has slowed down to an average rate of growth of around 6.5 percent in more recent years. Chinese GDP grew from US$358 billion in 1978 to US$13.1 trillion in 2018 (in 2018 prices and exchange rate), almost 37 times, to become the second largest economy in the world, with two-thirds of the GDP of the largest economy, the United States.
- Chinese real GDP per capita grew from US$372 in 1978 to US$9,415 in 2018 (in 2018 prices), at an average annual rate of over 8 percent, without any interruption, achieving a more than 25-fold increase. Even then, China as a country still only ranked below seventieth in terms of real GDP per capita in the world. And its real GDP per capita is still less than one-sixth of the U.S. real GDP per capita, which exceeds US$60,000.

Chinese Real GDP and Its Annual Rate of Growth since 1949 (trillion 2018 US$ & %)



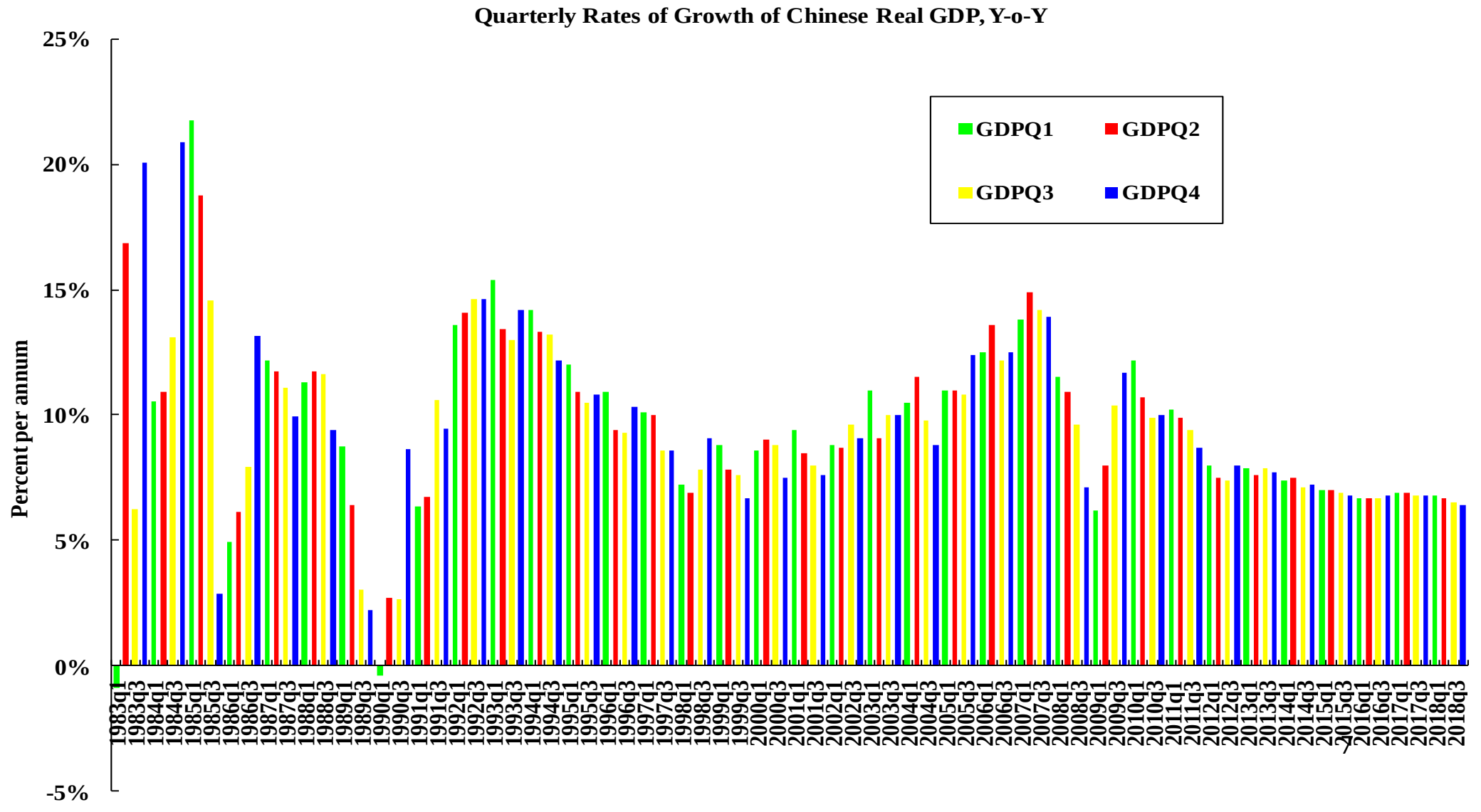
Chinese Real GDP per Capita and Its Annual Rate of Growth (thousand 2018 US$ & %)



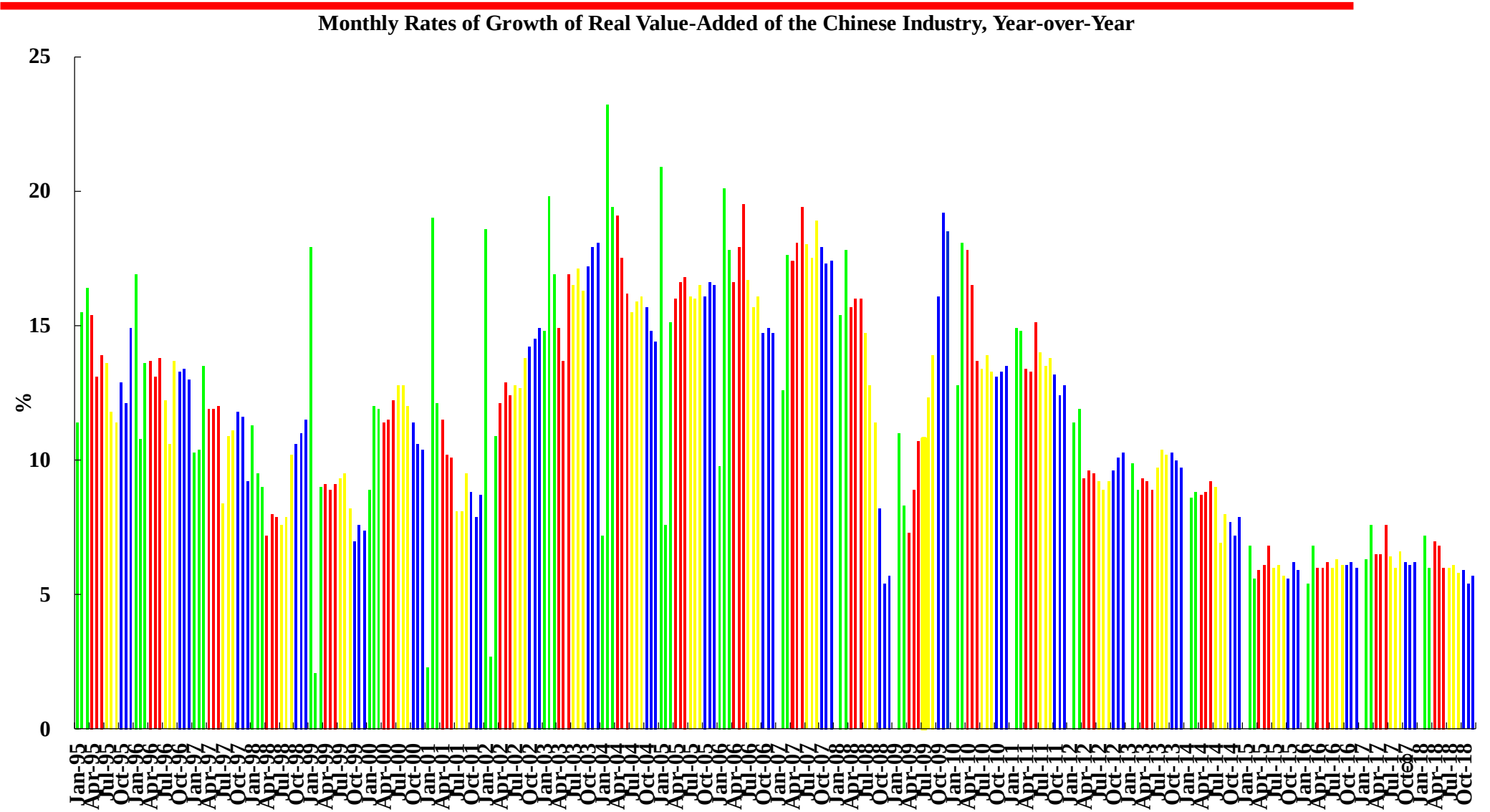
Introduction

- Researchers at the International Monetary Fund (IMF) and the World Bank have found, on the basis of "purchasing-power-parity (PPP)" calculations, that the Chinese economy overtook the U.S. economy in 2014.
- However, PPP comparisons of GDPs between economies are not reliable because they are highly sensitive to the set of so-called "international prices" chosen to evaluate the goods and services produced in the different economies. The choice of prices can affect the resulting estimates of the PPP GDPs greatly, especially because of the valuation of the non-tradable goods and services, the actual prices of which can differ significantly internationally due to differences in natural resource endowments such as land and minerals and in consumer preferences.

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



Monthly Rates of Growth of Real Value-Added of the Chinese Industry, Y-o-Y



Global Economic Trends

- There are four important developments in the global economy during the past four decades. They are:
- (1) The reform and opening of the Chinese economy and its participation in the world since 1978, enhancing both global supply of and demand for goods and services;
- (2) Economic globalisation, increasing international trade, direct investment and portfolio investment around the world;
- (3) The fragmentation of production, made possible by advances in information and communication technology, giving rise to widely dispersed international supply chains and international division of labour; and
- (4) The rise of the internet economy as a marketplace for both sellers and buyers.

Global Economic Trends

- These developments have resulted in:
- The centre of gravity of the global economy, in terms of both GDP and international trade, has been gradually shifting from North America and Western Europe to East Asia and South Asia, and within East Asia from Japan to China. The shift is still on-going, with both China and India being currently the fastest-growing economies in the world.
- Close to 1 billion people worldwide (740 million in China alone) have been lifted out of poverty as a result of this economic globalisation.
- The internet economy augments the variety of choices, increases competition and reduces transaction costs, including search costs.
- Each and every economy has benefitted in the aggregate.

Global Economic Trends

- However, while each and every economy has benefitted in the aggregate, this economic globalisation has created both winners and losers within each economy. But these losers have not shared in the benefits and have not been adequately compensated. This is the source of the anger and frustration in many developed economies around the world.
- Can economic globalisation continue in the future? Without continuing globalisation, can the currently developing economies become developed?

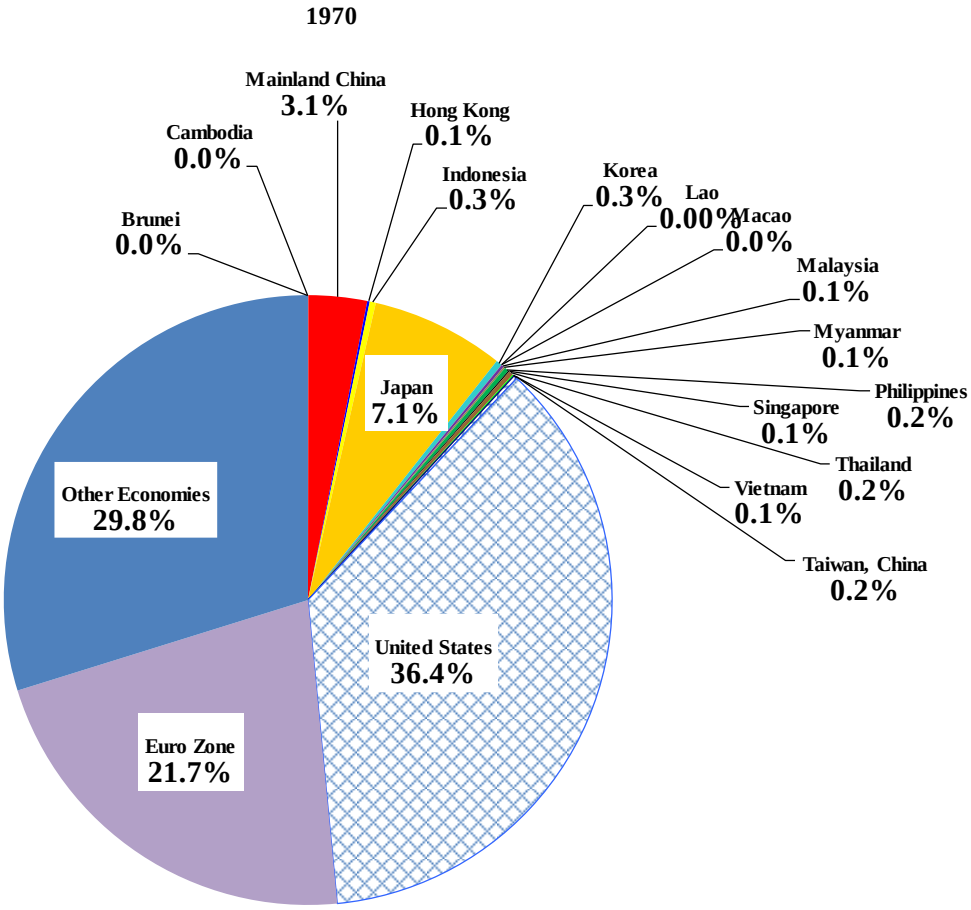
Global Economic Trends: The Shifting Center of Gravity of the Global Economy

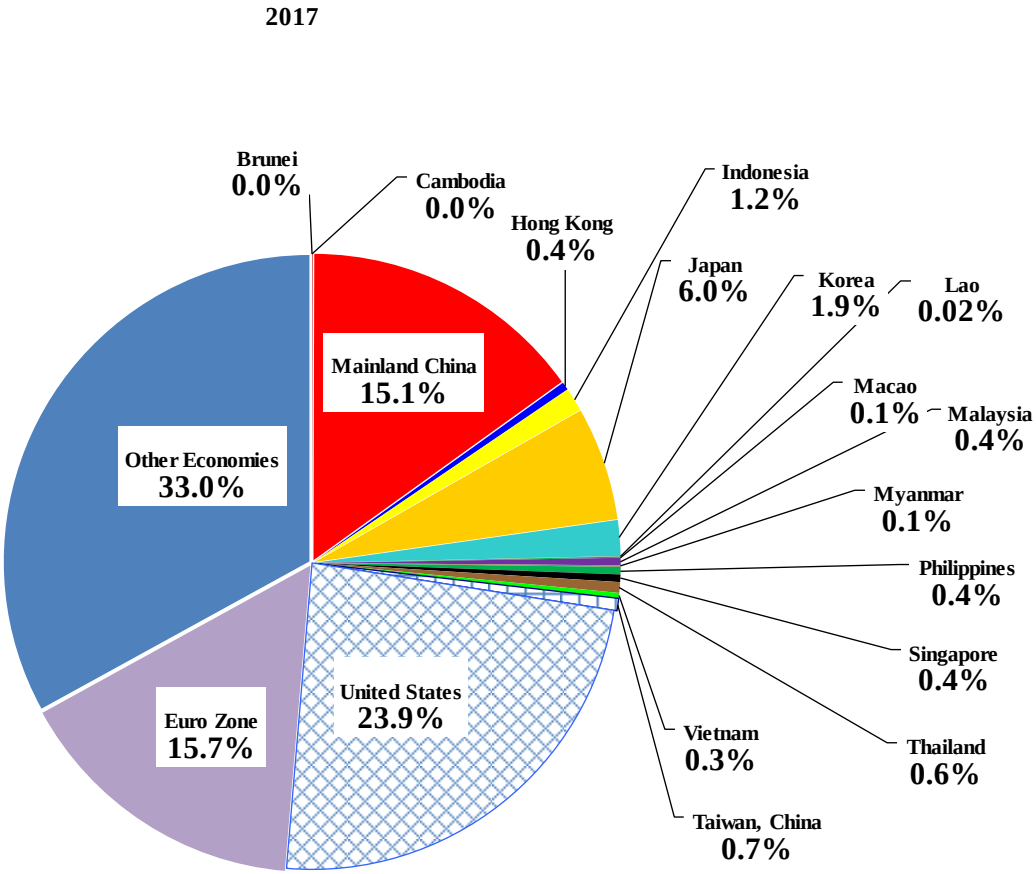
- In 1970, the United States and Western Europe together accounted for almost 60% of world GDP. By comparison, East Asia (defined as the 10 Association of Southeast Asian Nations (ASEAN)--Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam--+ 3 (China including Hong Kong, Macau and Taiwan, Japan and the Republic of Korea)) accounted for only approximately 10% of world GDP.
- Hong Kong, the Republic of Korea, Singapore and Taiwan are also known collectively as the East Asian "Newly Industrialised Economies (NIEs)".

Global Economic Trends: The Shifting Center of Gravity of the Global Economy

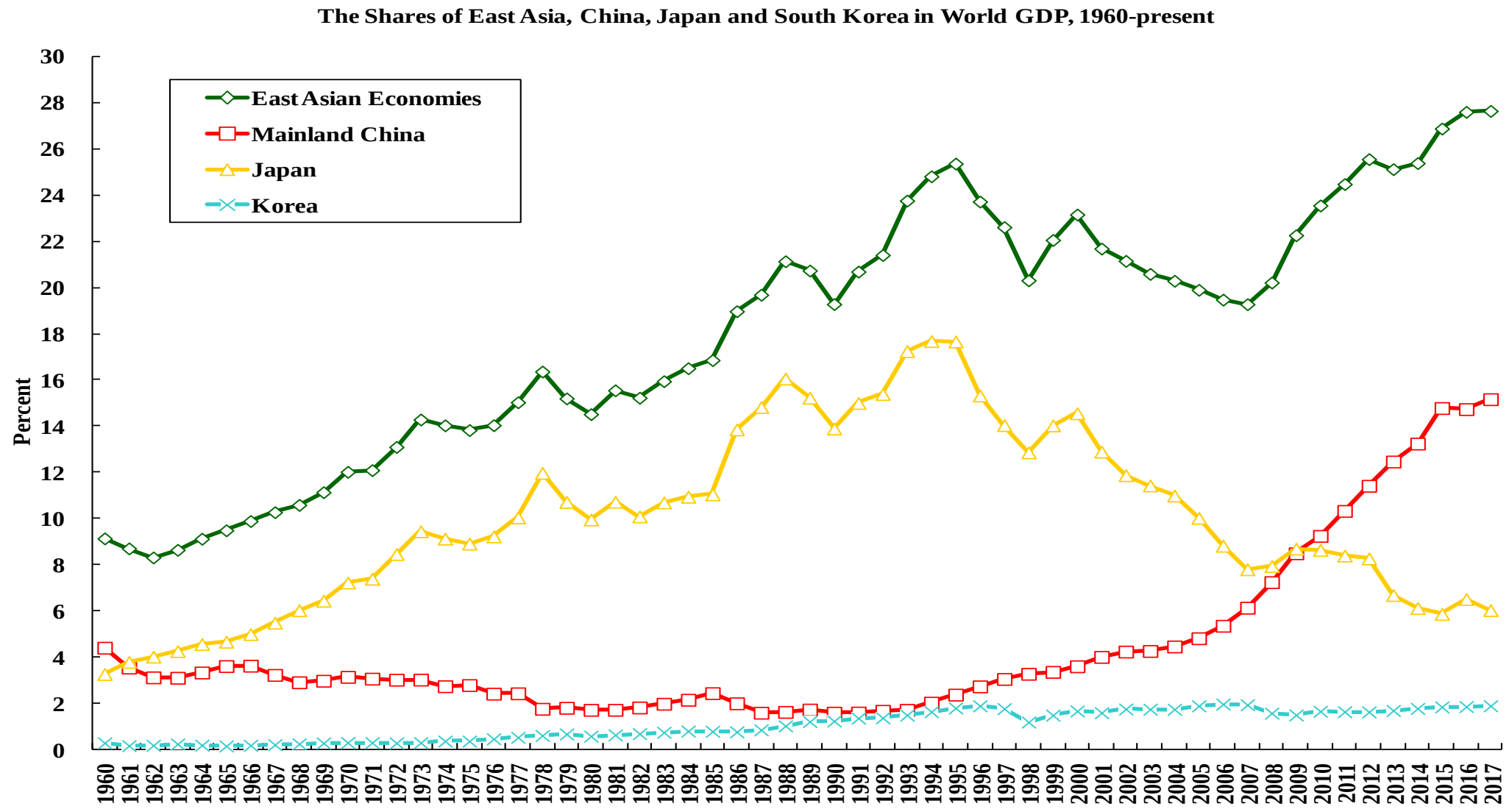
- By 2017, the share of United States and Western Europe combined in world GDP has declined to approximately 40% whereas the share of East Asia has risen to around 28%.
- The Japanese share of world GDP declined from a peak of almost 18% in the mid-1990s to 6.0% in 2017 while the Mainland Chinese share of world GDP rose from 3.1% in 1970 and less than 4% in 2000 to over 15.1% in 2017.

The Distribution of World GDP, 1970 and 2017, US$





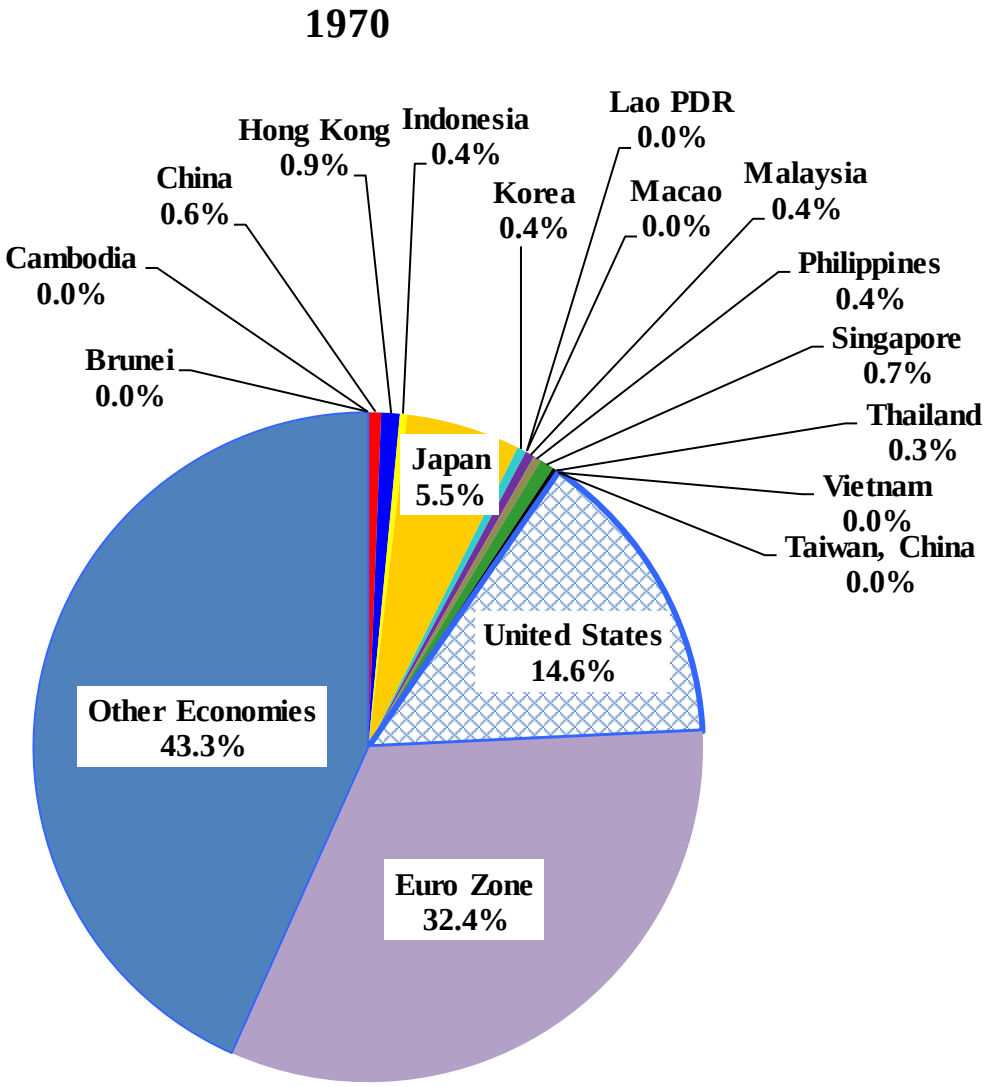
The Shares of East Asia, China, Japan and South Korea in World GDP, 1960-present

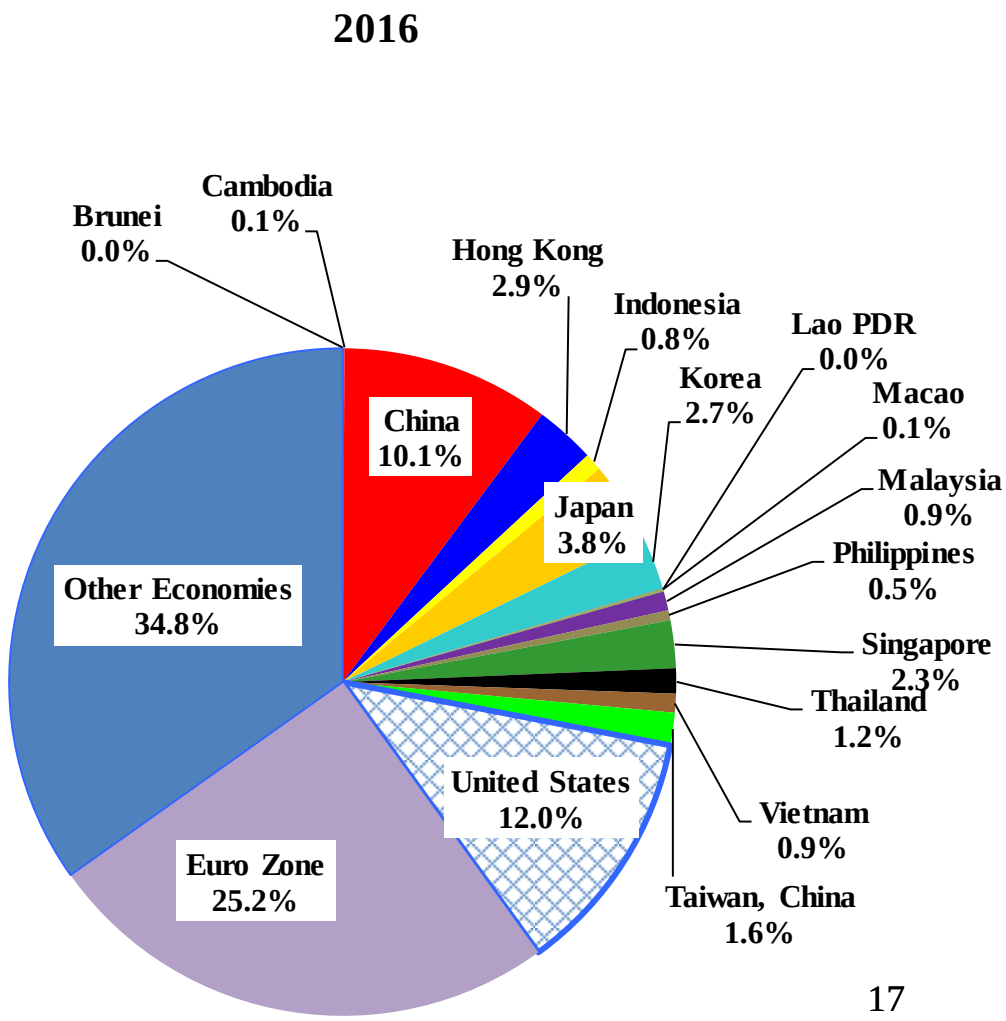


Global Economic Trends: The Shifting Center of Gravity of the Global Economy

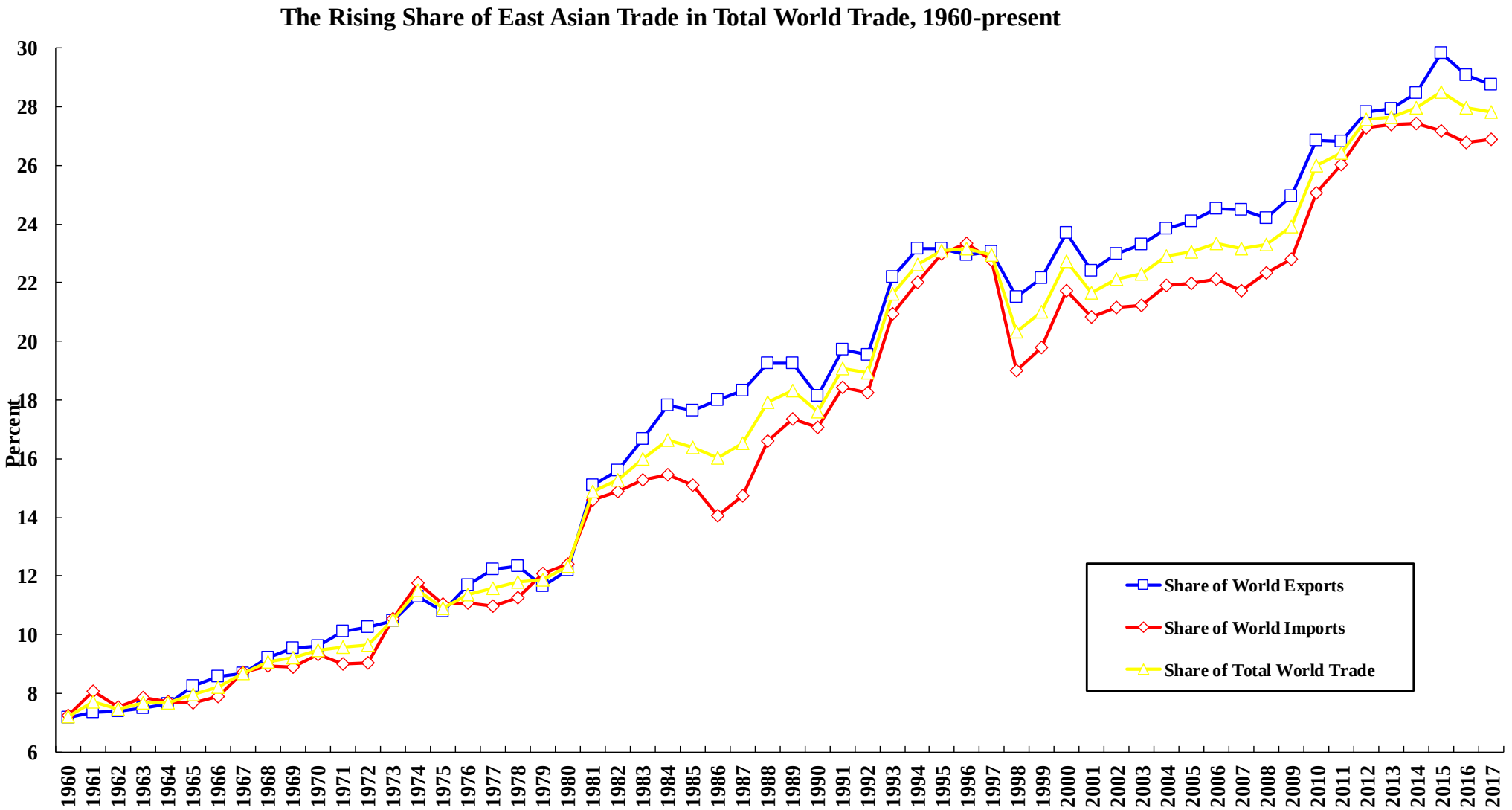
- In 1970, the United States and Western Europe together accounted for almost 47% of world trade in goods and services. By comparison, East Asia accounted for 9.5% of world trade.
- By 2017, the share of United States and Western Europe combined in world trade has declined to 36.5% whereas the share of East Asia has risen to almost 27.8%.
- The Mainland Chinese share of world trade rose from 0.6% in 1970 to 10.2% in 2017. The growth in Chinese international trade may be attributed in part to adoption of current-account convertibility of the Renminbi by China in 1994, accompanied by a significant devaluation of the Renminbi, and to Chinese accession to the World Trade Organisation (WTO) in 2001.
- Since 2015, Mainland China has also been the largest trading-partner country of the U.S., surpassing Canada.

The Distribution of International Trade in Goods and Services, 1970 and 2016

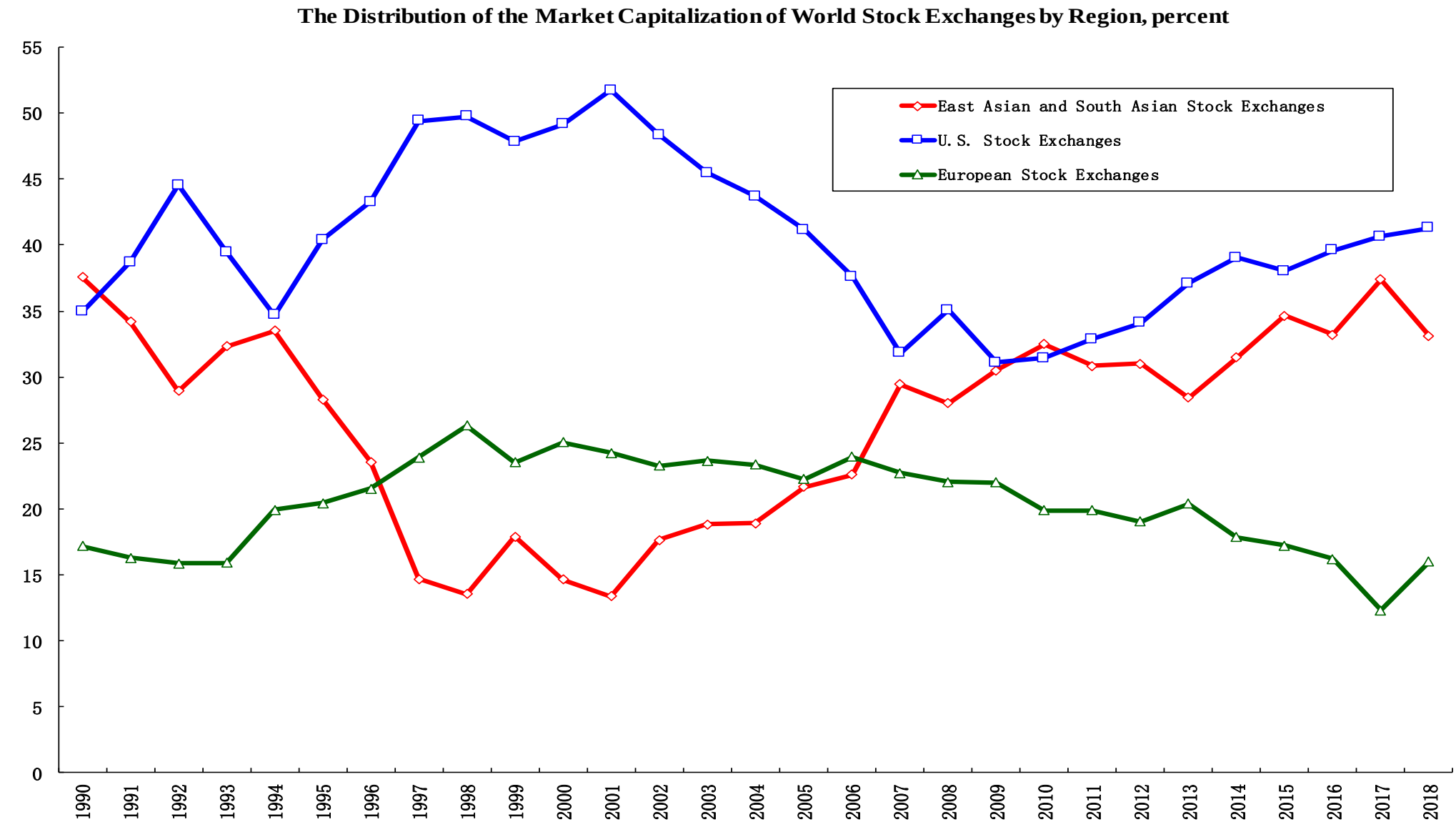




The Rising Share of East Asian Trade in Total World Trade, 1960-present



The Distribution of the Market Capitalization of World Stock Exchanges by Region, percent



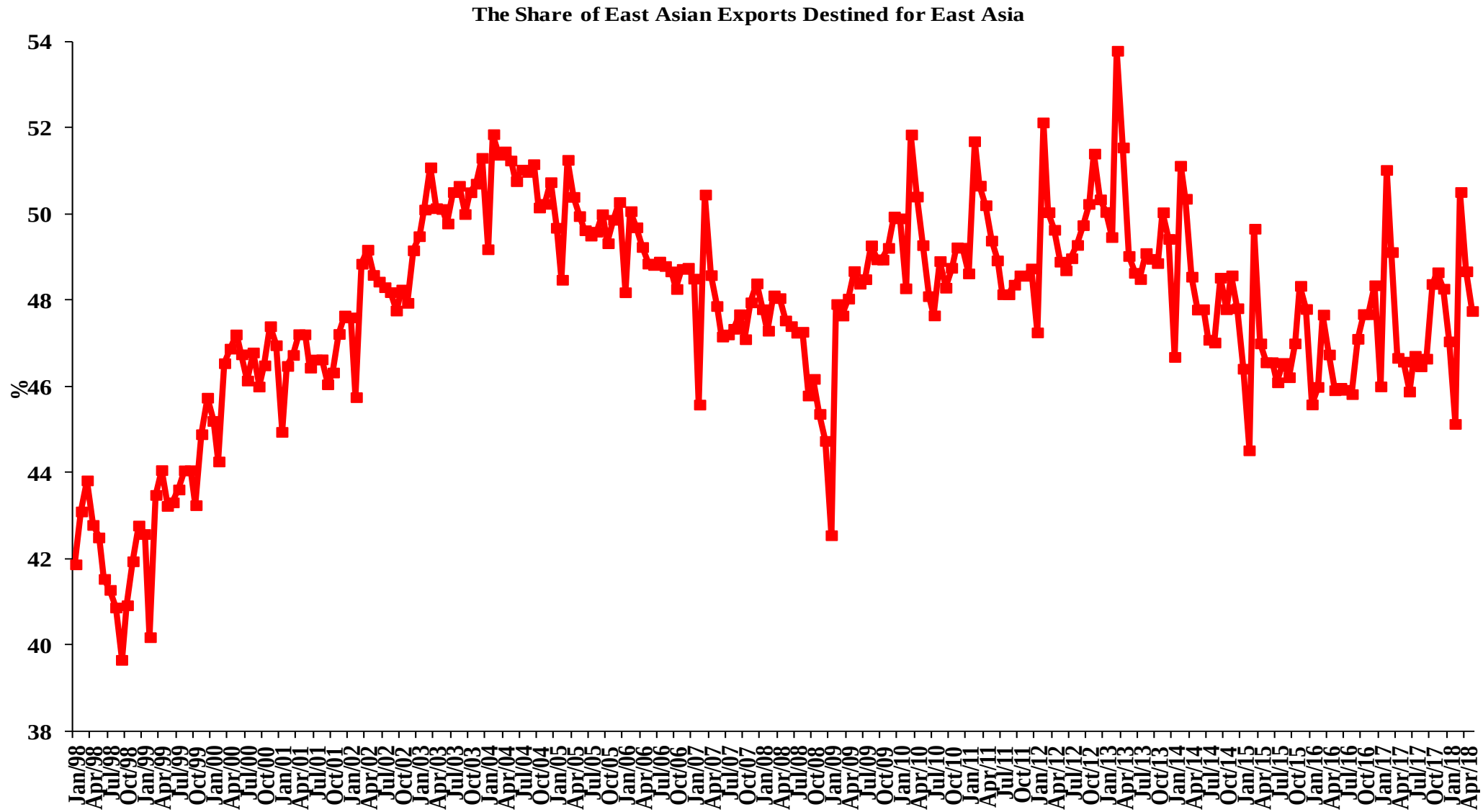
The Shifting Center of Gravity of the Global Economy: The Partial De-Coupling Hypothesis

- Throughout the 2007-2009 global financial crisis, as well as the subsequent European sovereign debt crisis, the East Asian economies continued to do reasonably well. Mainland China, in particular, has been able to maintain its real rate of growth above 6.5% since 2007, lending credence to the "Partial De-Coupling Hypothesis", that is, the East Asian economies can continue to grow, albeit at lower rates, even as the U.S. and European economies go into economic recession.
- This partial de-coupling can occur because of the shift of the economic centre of gravity of the world from the United States and Western Europe to Asia (including both East Asia and South Asia) over the past four decades.

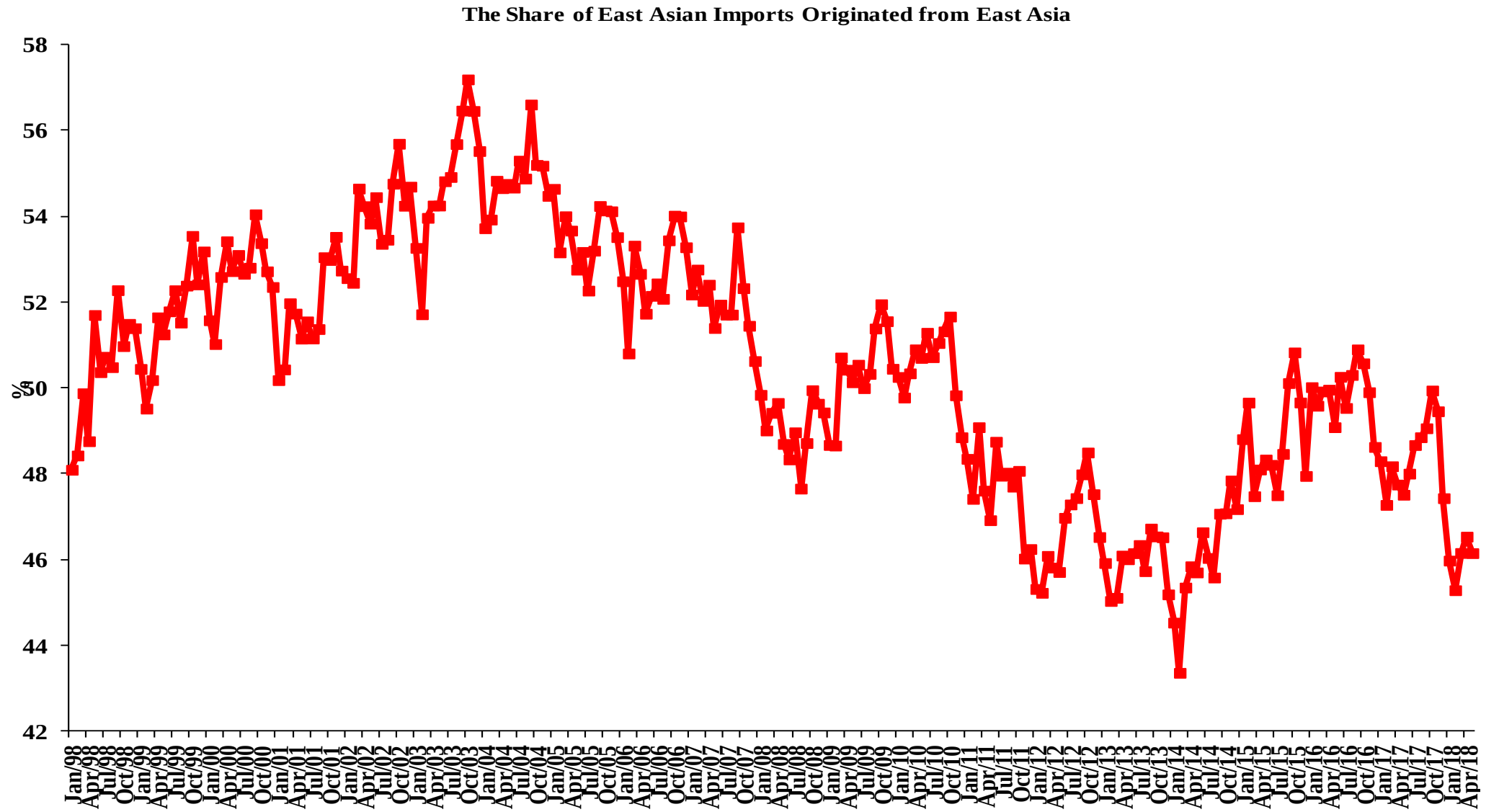
The Shifting Center of Gravity of the Global Economy: The Partial De-Coupling Hypothesis

- A particularly interesting development is the rise in intra-East Asian international trade. The share of East Asian exports destined for East Asia accounts for 50 percent of total East Asian exports at the present time. This is a sea-change compared to 30 years ago when most of the East Asian exports were destined for either the United States or Western Europe.
- Similarly, the share of East Asian imports originated from East Asia has also stayed around 50 percent.

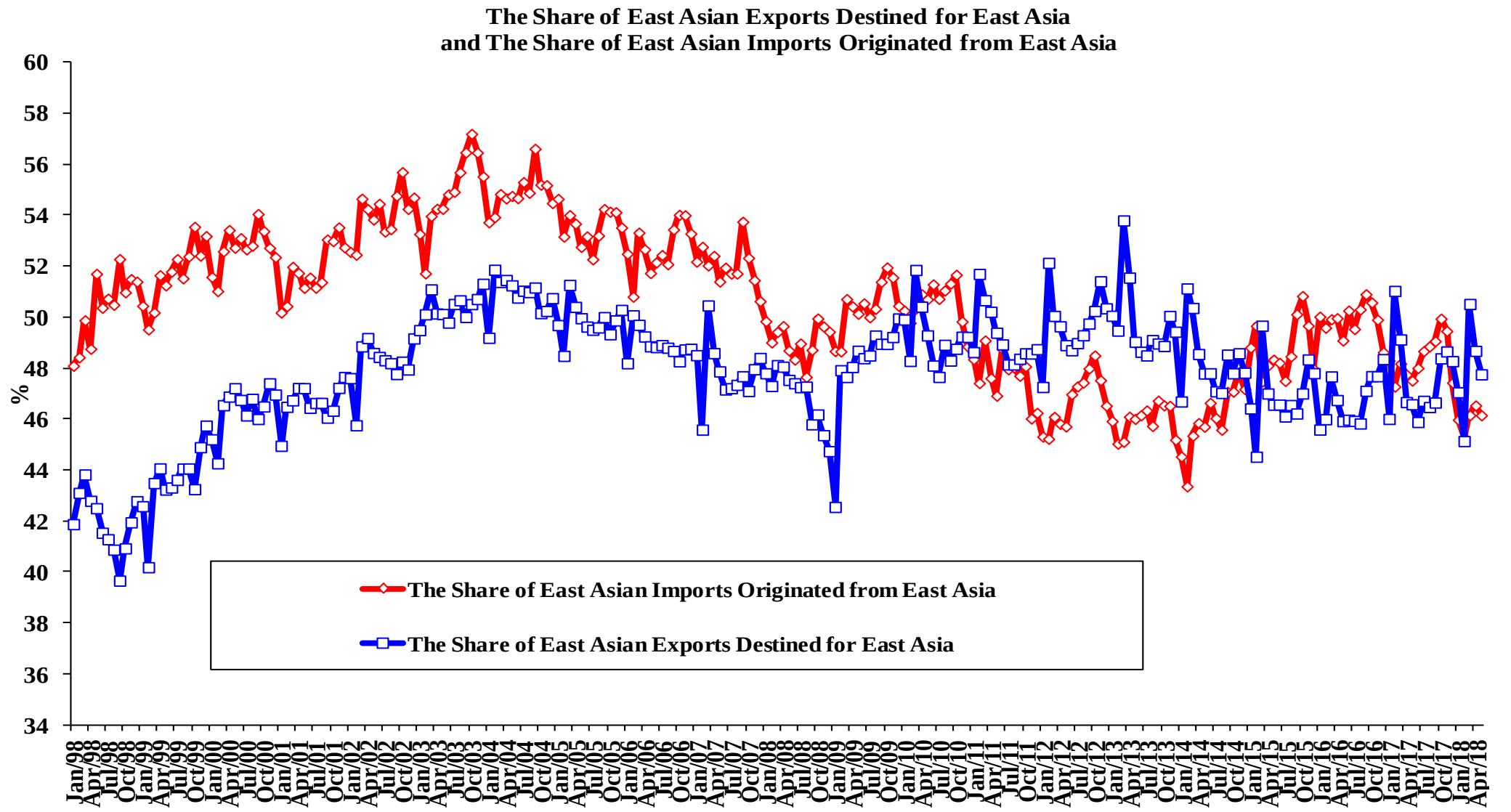
The Share of East Asian Exports Destined for East Asia



The Share of East Asian Imports Originated from East Asia



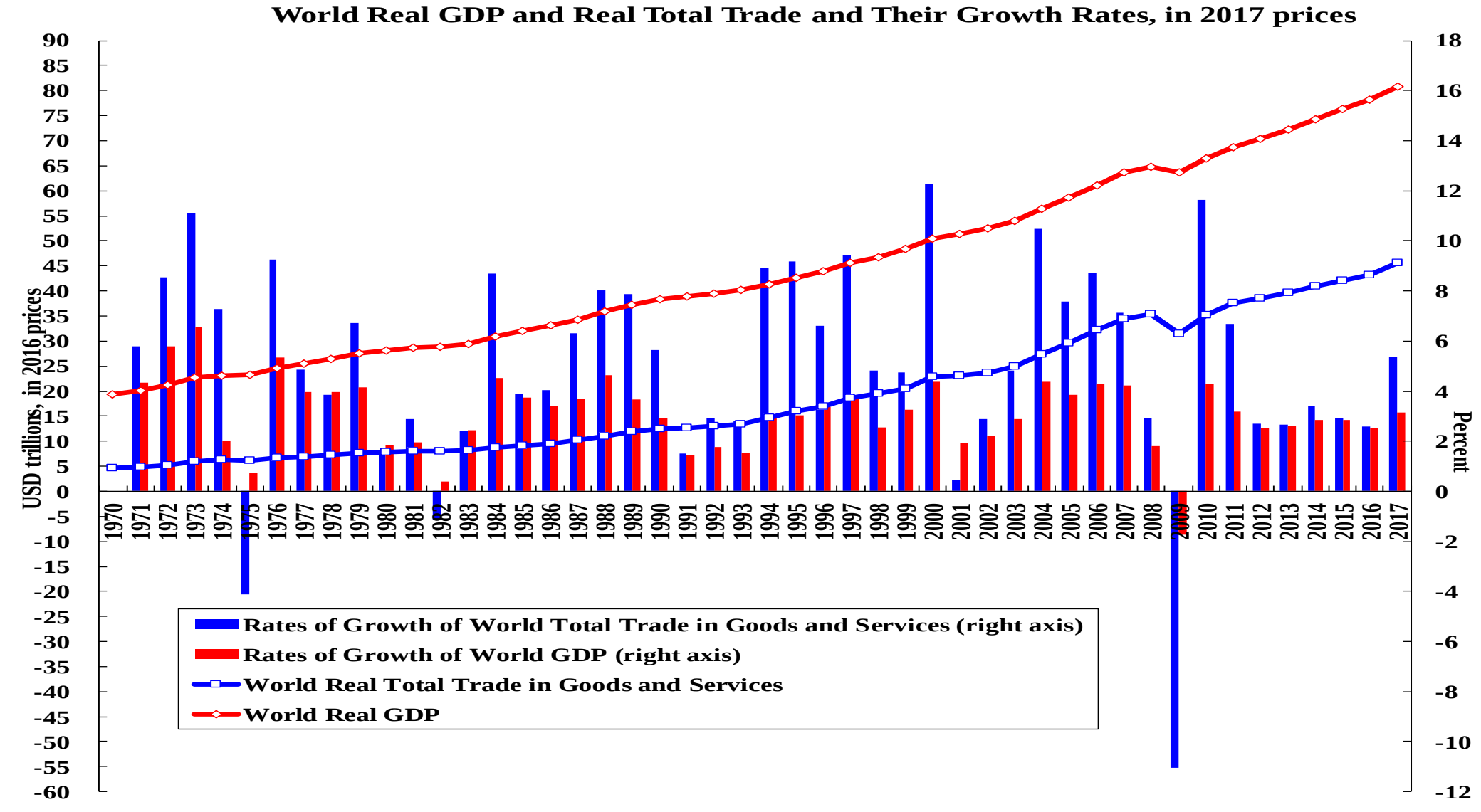
The Share of East Asian Exports Destined for E. Asia & the Share of E. Asian Imports Originated from E. Asia



Global Economic Trends: The Slowdown in the Growth of GDP,Trade & Direct Investment

- Both total real world trade and total world foreign direct investment have grown much faster than total real world GDP since 1970. Between 1970 and 2008, the beginning of the most recent global financial crisis, total real world GDP grew at an average annual rate of 3.3% while total real world trade grew at an average annual rate of 5.5%.
- However, since the global financial crisis that began with the U.S. sub-prime loan crisis in 2007, the average annual rates of growth of real world GDP and real world trade have declined to 2.2% and 2.5% respectively. The recent fall in the nominal value of total world trade is due in part to the fall in the world price of oil.
- 2017 turned out to be the best year for the developed economies—the U.S., the European Union and Japan—in a decade.

Real World GDP and Trade in Goods and Services and Their Growth Rates (2017 prices)



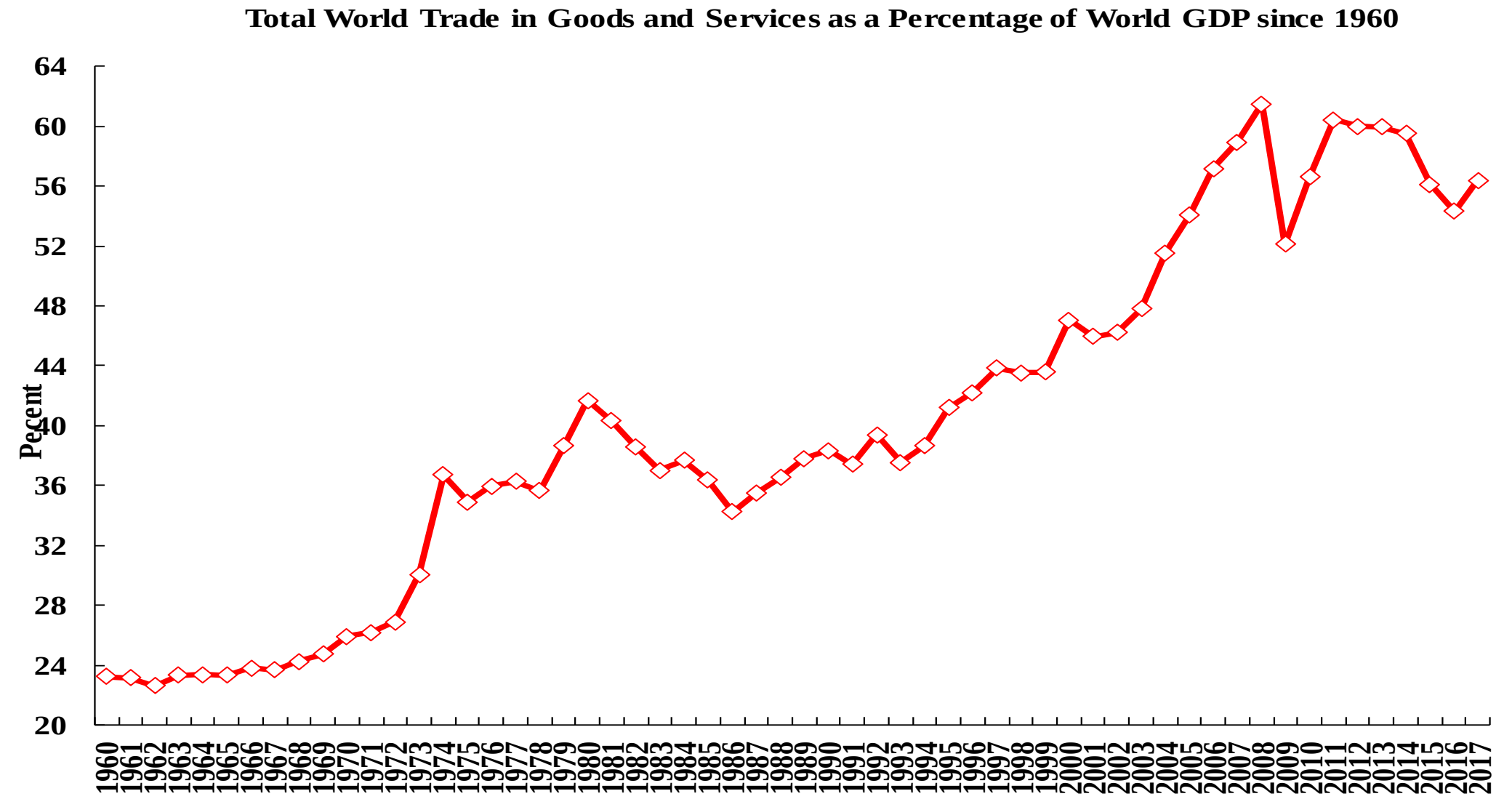
Global Economic Trends: The Slowdown in the Growth of GDP,Trade & Direct Investment

- It is unlikely that the world economy as a whole would resume its heady rates of growth in GDP and trade that it achieved prior to the global financial crisis of 2008 in a sustained manner.
- Cross-border trade and direct investment are no longer the major drivers of world economic growth.
- Protectionism, isolationism, nationalism and populism are rearing their heads and the entire world faces the risks of trade wars and economic de-globalisation.

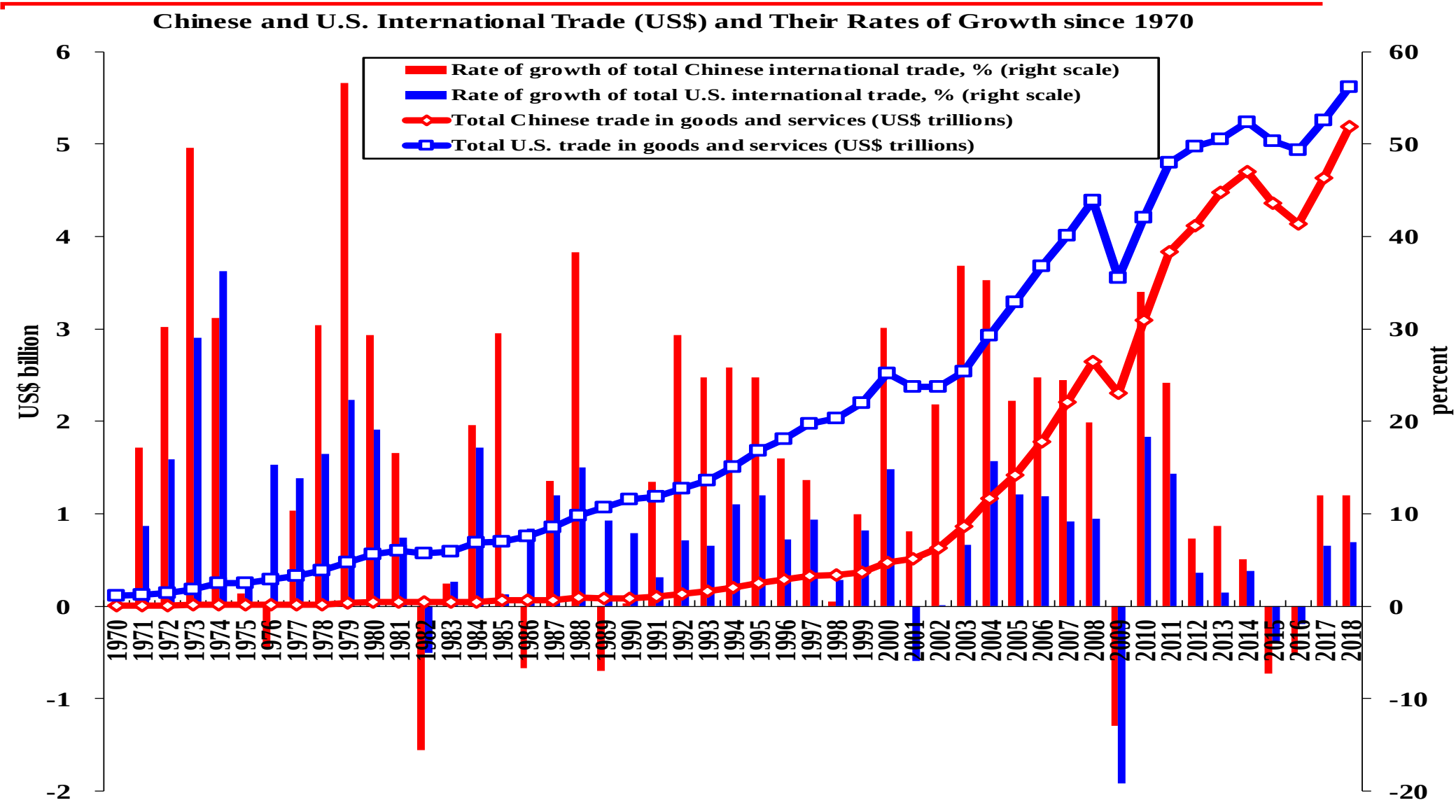
Global Economic Trends: The Slowdown in the Growth of GDP,Trade & Direct Investment

- Total world trade as a percent of total world GDP increased from 26% in 1970 to 62% in 2008, but it has since stalled and has begun a gradual decline.
- The total values of international trade of the United States and China, the two largest economies and also the two largest trading economies in the world, have declined in both 2015 and 2016.
- However, 2017 saw a rebound in the growth of world trade, but it was probably due, in part, to the recovery from a low base.
- Economic globalisation has reached a turning point. Is it likely to be reversed in the future?

Total World Trade in Goods and Services as a Percentage of World GDP since 1960



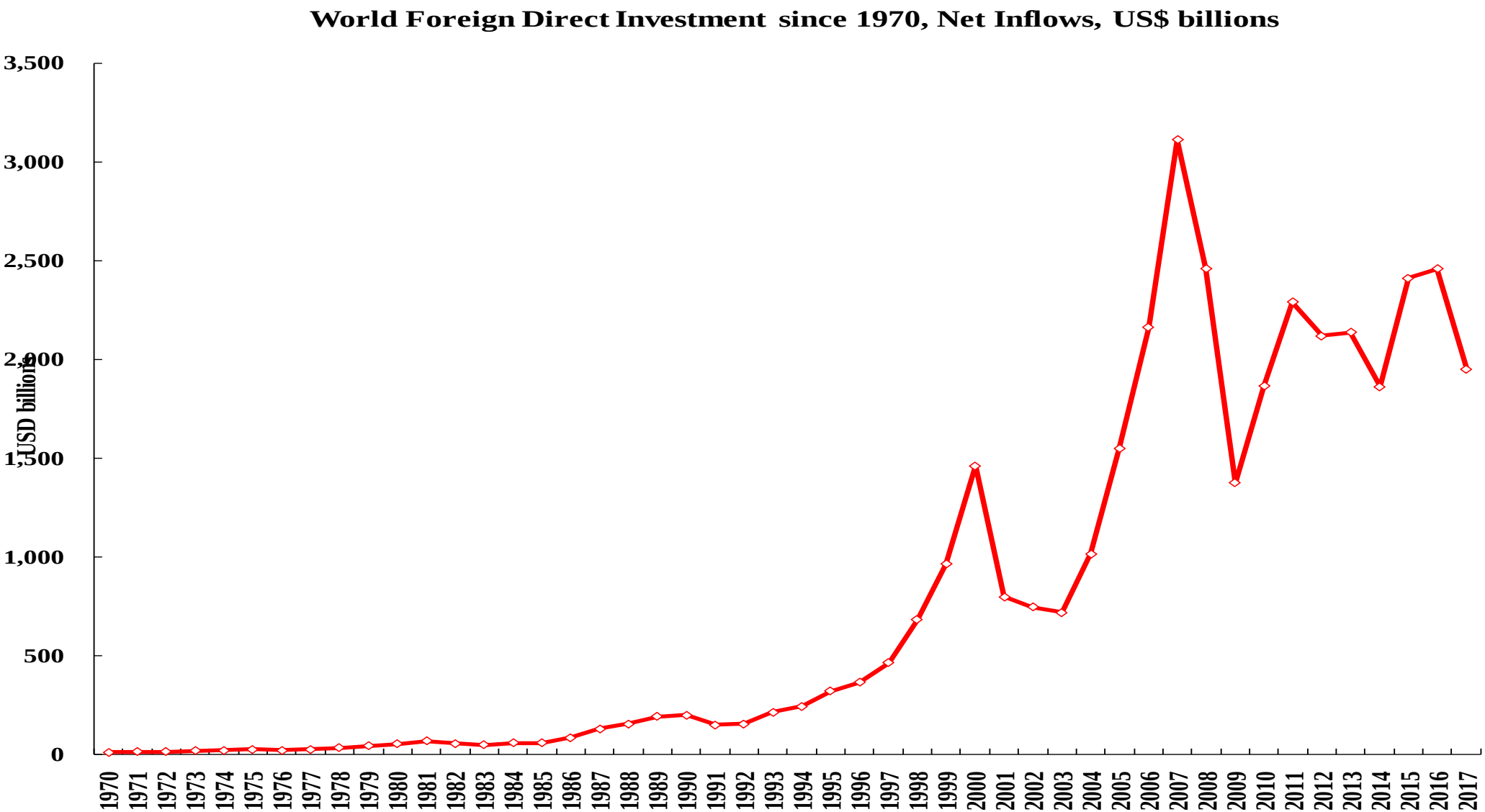
Chinese and U.S. International Trade and Their Respective Rates of Growth since 1970 (US$)



Global Economic Trends: Foreign Direct Investment (FDI)

- Falling barriers to as well as incentives for foreign direct investment (FDI) provided by investee countries have also greatly increased cross-border direct investment. National treatment for foreign direct investment is becoming increasingly standard under the World Trade Organisation (WTO) and similar agreements.
- Data from the United Nations Commission for Trade and Development (UNCTAD) show that total world FDI increased at the average annual rate of 14% between 1970 and 2007, the beginning of the global financial crisis. Annual total world FDI may be estimated at approximately US$1.9 trillion in 2007. Since 2007 total world FDI has been declining by 1% per year.
- The U.S. and Mainland China are the world's top two leading recipients of foreign direct investment (FDI) with an annual average of approximately US$100 billion currently. They are also the top two outbound direct investors.
- Foreign direct investments (FDI) often follow trade—e.g., to secure long-term supply of raw materials and natural resources; and trade often follows foreign direct investments—e.g., production by captive subsidiaries in foreign markets. A large proportion of world trade consists of intra-industry and intra-firm trade.
- International capital flows also include portfolio investment, foreign aid, foreign loans and short-term capital flows such as "hot money".

Total World Foreign Direct Investment (FDI), US$ since 1970



Global Economic Trends: The Limits of Monetary Policy

- The experiences of the quantitative easing policies undertaken by the U.S. Federal Reserve Board, the Bank of Japan, the European Central Bank (ECB) and other central banks since late 2008 confirm what should have been well known all along—that monetary policy alone cannot turn a depressed economy around. Low interest rates cannot overcome the effects of negative expectations about the future. If expectations about the future of the economy are poor, firms will not make new investments and households will reduce their consumption no matter how low the interest rate becomes, even if it turns negative. Moreover, such expectations can be self-fulfilling.
- The U.S., Japan and many of the European countries have been stuck in a classic "liquidity trap". As the saying goes: "One can pull on a string, but not push on a string". Monetary policy or quantitative easing is powerless when faced with a low level of confidence about the future of the economy.

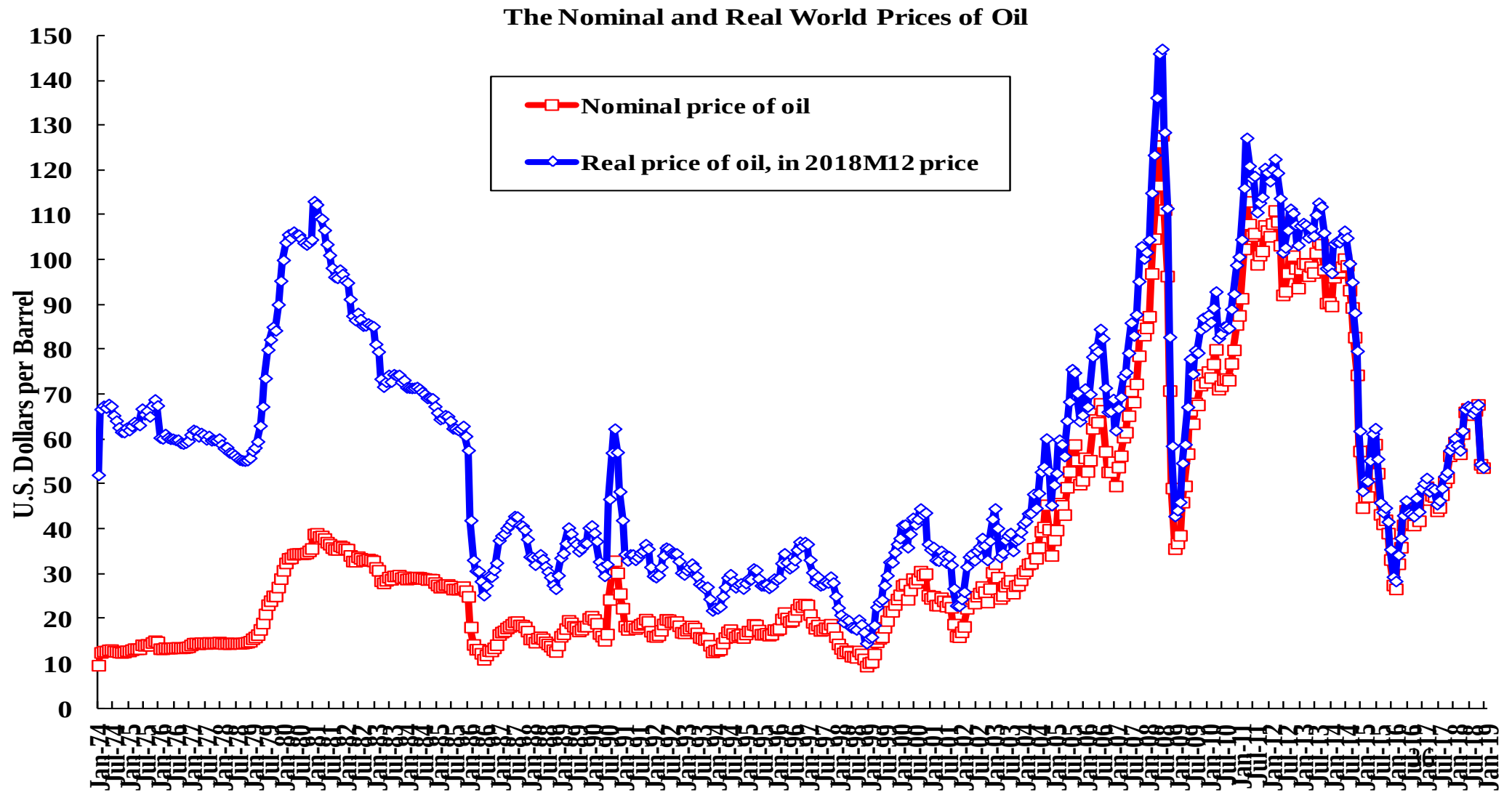
Global Economic Trends: The Limits of Monetary Policy

- In addition, zero or negative interest rates create asset price bubbles, which will eventually burst, with damaging consequences. They also have serious negative effects on the income and wealth distribution and impose hardships on the net savers of the economy--the middle- and lower-income households, and especially the retired elderly.
- The truth is that easy monetary policy has not worked too well to revive the economies, and should have never been expected to work by itself alone.
- Interest rates worldwide are expected to be normalised in the next couple of years, led by the U.S. Federal Reserve Board.

Global Economic Trends: The World Price of Oil

- The world price of oil fell between 2014 and 2016. It has rebounded somewhat since. In real terms it is slightly higher then where it was before its spectacular rise in 2004.
- Overall, the fall in the world price of oil has to be regarded as a net positive factor for the world economy as a whole.
- The world price of oil is not really determined by world supply and demand alone. The world oil market is an oligopolistic market. The largest producer in the world, Saudi Arabia, has the capacity of producing at least 25 percent more if it chooses to do so.
- However, given the advances in shale oil fracturing technology ("fracking") and the abundant potential supply in the U.S., now the largest oil producer in the world, which can be tapped in a matter of months, it is unlikely that the world price of oil will stay above US$60 a barrel for a long time.

The Nominal and Real World Prices of Oil (2017 prices)



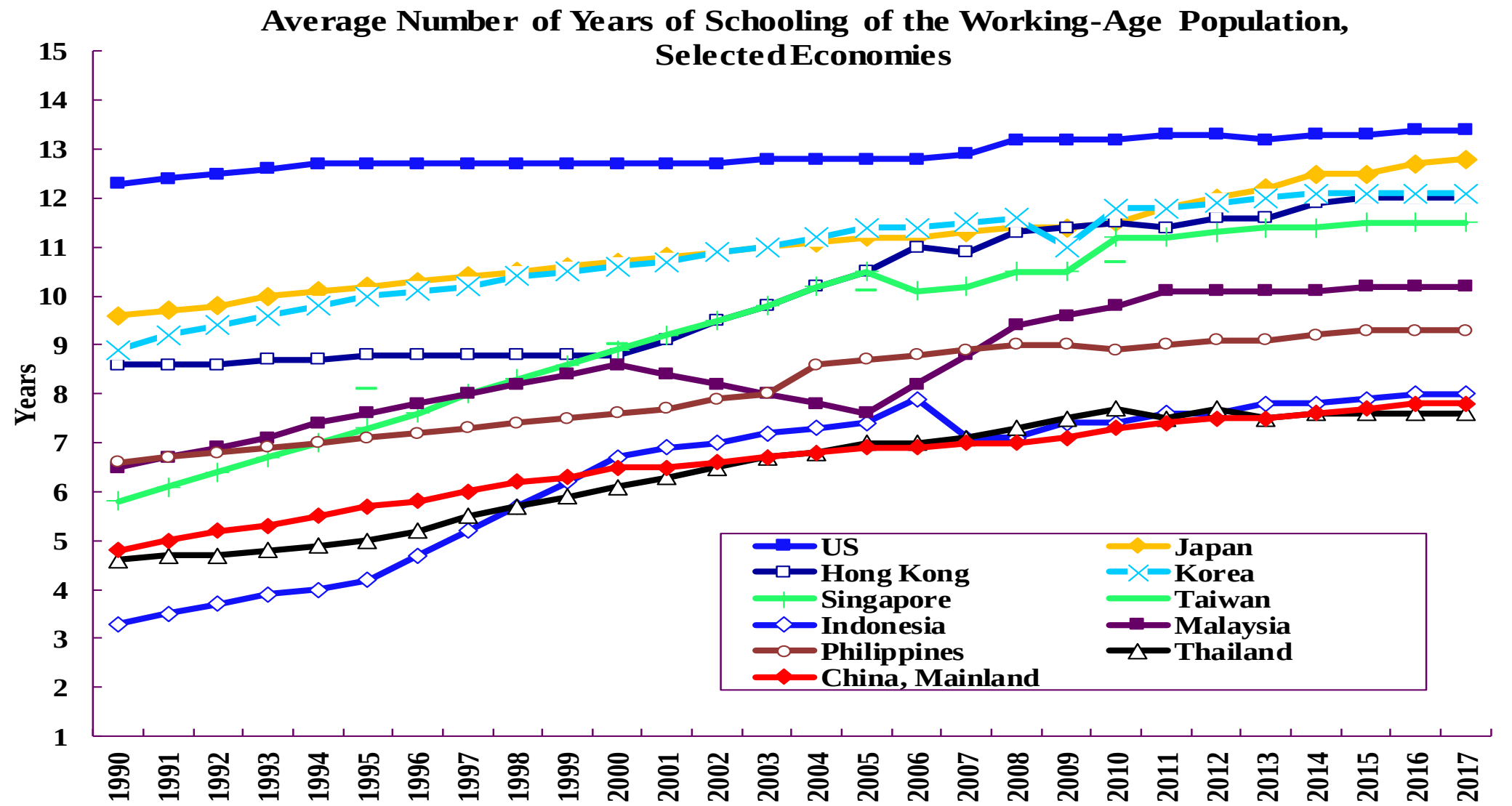
Global Economic Trends: The Importance of Innovation

- Innovation is the most important driving force of economic growth today, especially for mature developed economies with their already-high capital-labor ratios and little, no, or even negative growth in labor-hours.
- Sustained investment in intangible capital such as human capital and research and development (R&D) is essential for the occurrence of economic innovation, reflected in measured technical progress or growth in total factor productivity in an economy.
- Economic globalisation can create new competitors. Economies must adapt and adjust. Intangible capital enables the creation of new comparative advantages.
- The East Asian economic development experience provides an example of created as opposed to natural comparative advantage (human capital and R&D capital can substitute for natural resources).

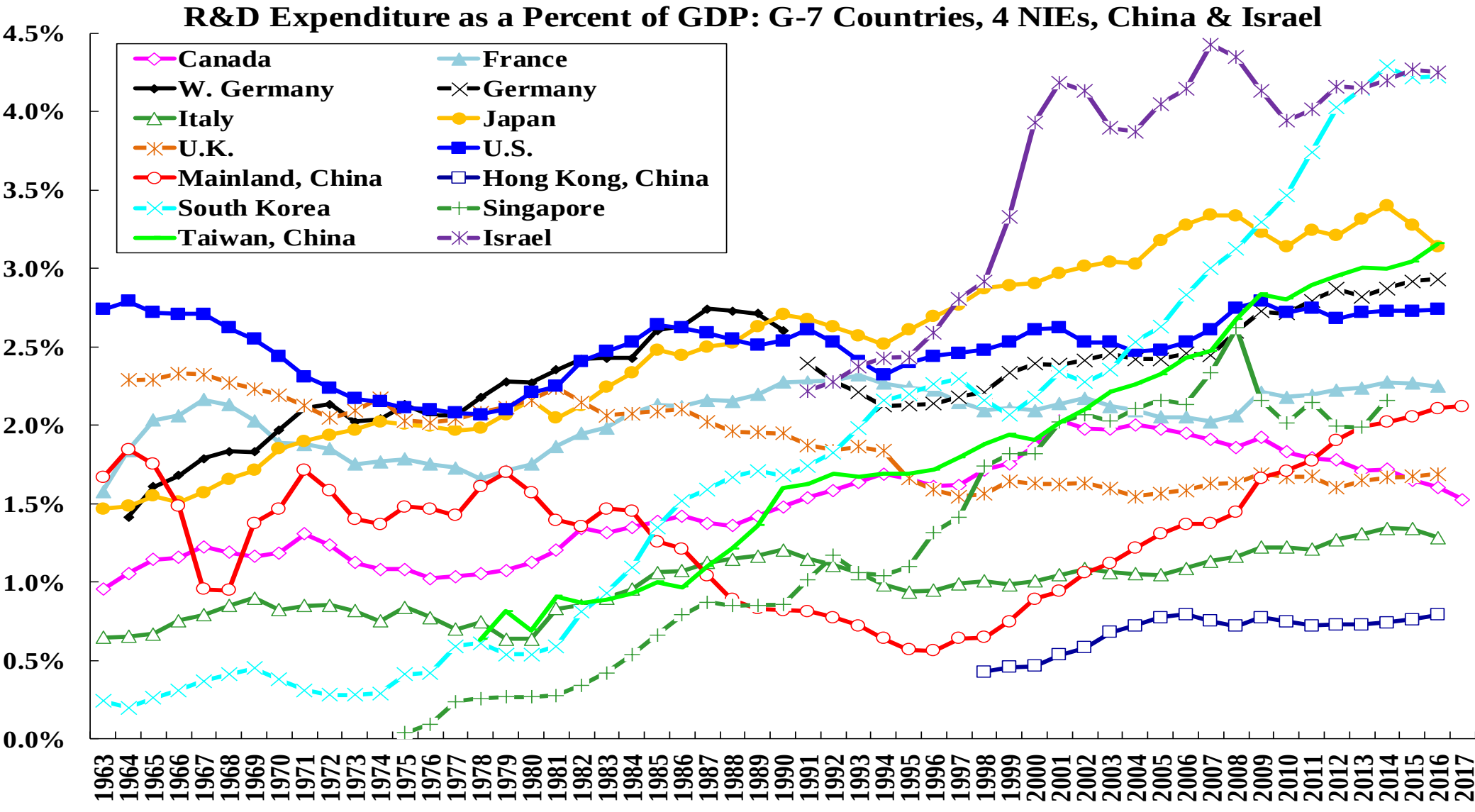
Global Economic Trends: The Importance of Innovation

- One indicator of the level of human capital in an economy is the average number of years of schooling per person in the working-age population. In the following chart, the average number of years of schooling is compared across selected economies.
- By this measure, the United States and Japan are clearly the global leaders. South Korea and Taiwan have also been catching up fast. Most of the other East Asian economies also have quite rapidly increasing levels of human capital but it will take a while before they can catch up with the levels of human capital in the developed economies.
- R&D expenditure as a percent of GDP also shows similar trends.

Average No. of Years of Schooling per Person in the Working Age Pop., Selected Economies



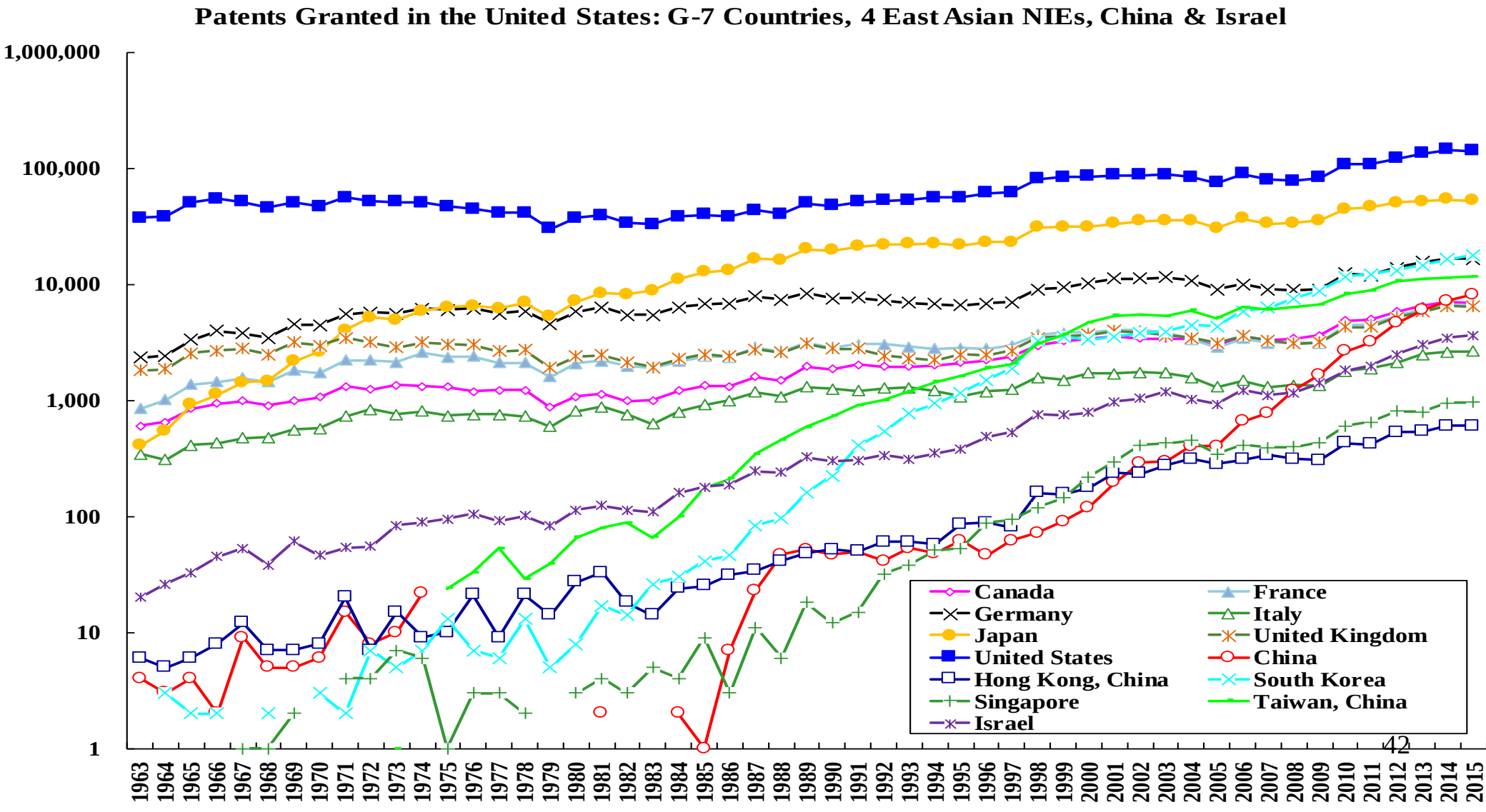
R&D Expenditure as a Percent of GDP: G-7 Countries, 4 East Asian NIES, China & Israel



Global Economic Trends: The Importance of Innovation

- One indicator of the potential for technical progress (national innovative capacity) is the number of patents created each year. In the following chart, the number of patents granted in the United States each year to the nationals of different countries, including the U.S. itself, over time is presented.
- The U.S. is the undisputed champion over the past forty years, with 140,969 patents granted in 2015, followed by Japan, with 52,409. (Since these are patents granted in the U.S., the U.S. may have a home advantage; however, for all the other countries and regions, the comparison across them should be fair.)
- The number of patents granted to Mainland Chinese applicants each year has increased from the single-digit levels prior to the mid-1980s to 8,166 in 2015.
- The economies of South Korea and Taiwan, granted 17,924 and 11,690 U.S. patents respectively in 2015, are still far ahead of Mainland China. In contrast, the number of U.S. patents granted to Hong Kong nationals was only 601 in 2015.

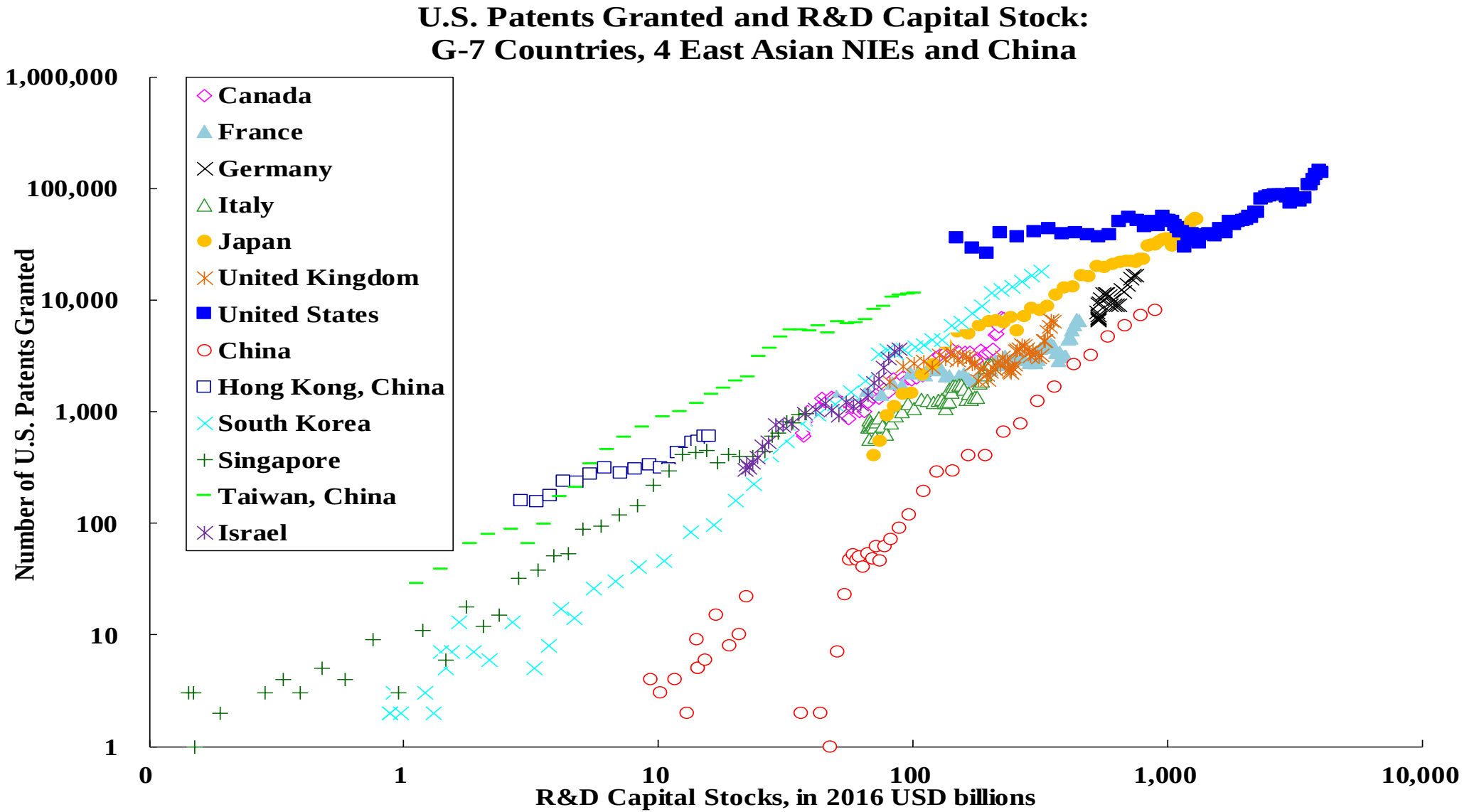
Patents Granted in the United States: G-7 Countries, 4 East Asian NIEs, China & Israel



The Importance of Innovation: Investment in Intangible Capital

- The R&D capital stock, defined as the cumulative past real expenditure on R&D less depreciation of 10% per year, is an useful indicator of innovative capacity. It should quite properly be treated as capital since R&D efforts generally take years to yield any results.
- It can be shown to have a direct causal relationship to the number of patents granted (see the following chart, in which the annual number of U.S. patents granted is plotted against the R&D capital stock of that year for each economy).
- The chart shows clearly that the higher the stock of R&D capital of an economy, the higher is the number of patents granted to it by the U.S.

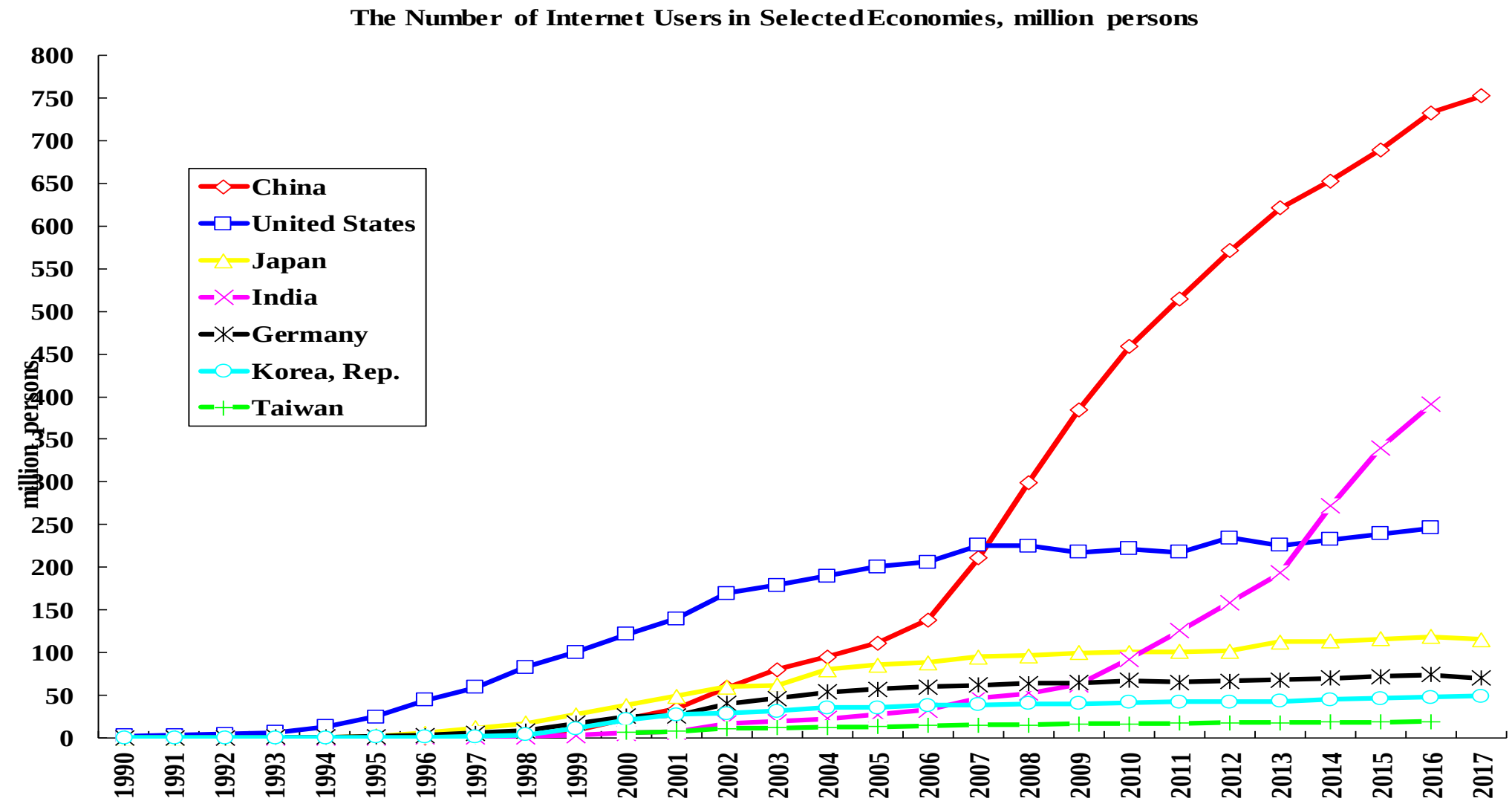
U.S. Patents Granted and R&D Capital Stocks: G-7 Countries, 4 EANIEs, China & Israel



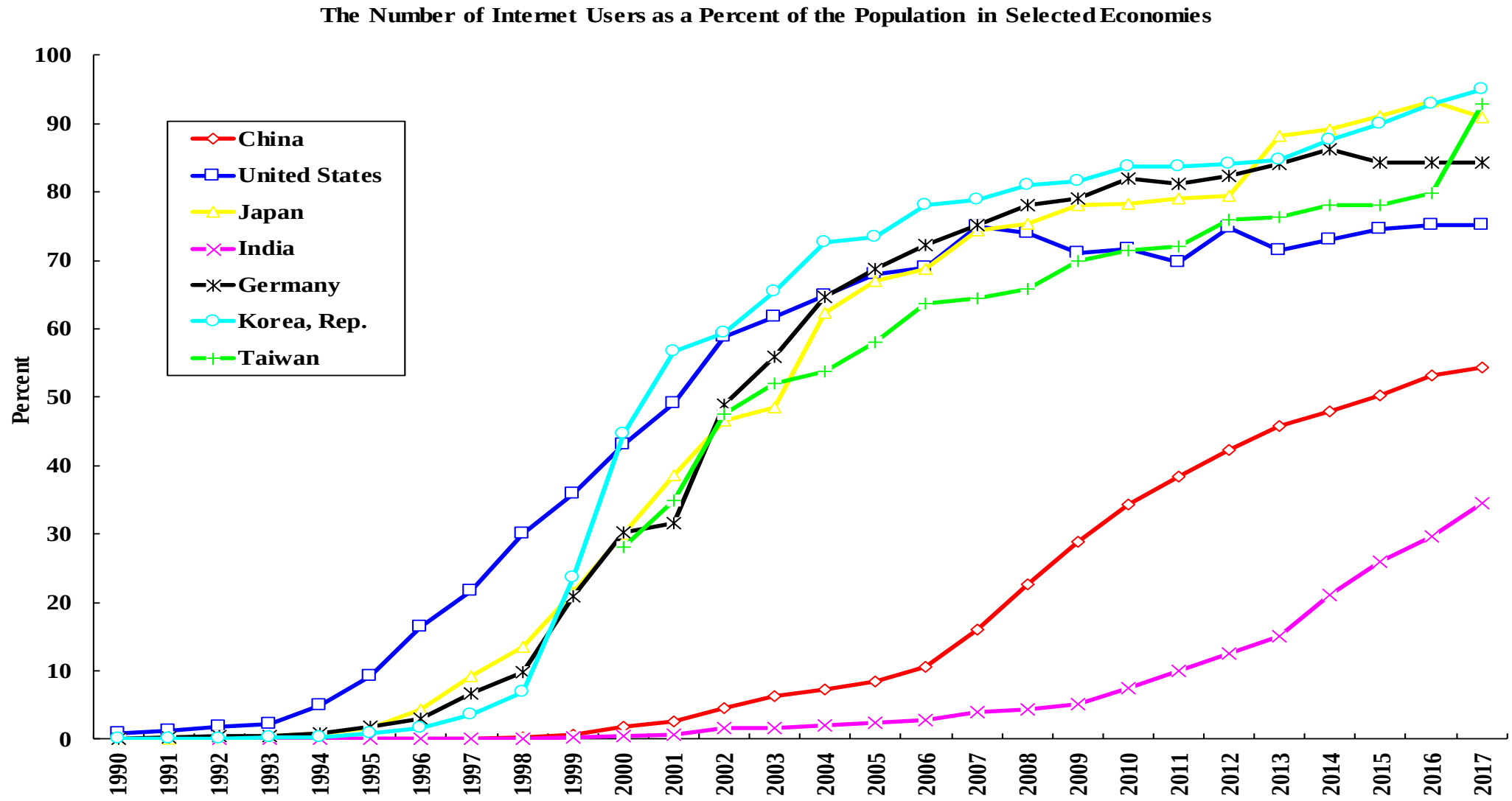
Global Economic Trends: The Internet Economy

- Internet commerce has been growing by leaps and bounds. Amazon and Alibaba have become two of the largest corporations in the world.
- However, internet commerce has also been causing disruptions in both developed and developing economies.
- It has been affecting the financial sector and the retail sector. It has been making the most progress in economies in which the financial sector is relatively under-developed, such as China.
- WeChat Pay and other similar set-ups relying on QR codes are sweeping the developing world, especially where personal checking accounts are either non-existent (e.g., in China) or rare. They greatly facilitate payments and fund transfers.

The Number of Internet Users as a Percent of the Population in Selected Economies



The Number of Internet Users as a Percent of the Population in Selected Economies



Global Economic Trends: The Belt and Road (B&R) Initiative

- The "Belt and Road" (B&R) Initiative, consisting of the Silk Road Economic Belt and the 21st Century Maritime Silk Road, was launched by Chinese President XI Jinping in September 2013. It is a grand, multi-country (72 by last count), multi-decade development plan with the objective of linking and transforming the economies of Asia, Europe, Africa and Oceania.
- The Silk Road Economic Belt, as the Old Silk Road, links the continents of Asia, Europe and Africa together. It brings together China, Central Asia, West Asia, Middle East, North Africa, Russia and Europe. In particular, it will encompass new Eurasian Land Bridges.
- The 21st-Century Maritime Silk Road is designed to connect China's coastal regions to Europe through the South China Sea and the Indian Ocean in one route, and through the South China Sea to the South Pacific and Oceania in the other. However, the "Northern Passage", through the Bering Strait and down to Northern Europe, has also been proposed to be part of the 21st-Century Maritime Silk Road as global warming makes the route navigable year round.

Global Economic Trends:
The Belt and Road (B&R) Initiative

- The Belt and Road (B&R) Initiative is a serious long-term commitment of China that has been written into the Charter of the Communist Party of China.
- It has been developed on the basis of the Chinese economic development experience—that connectivity and infrastructure can promote economic development through trade and direct investment.
- It aims to create a peaceful and secure environment for joint development by building a trade, investment and infrastructure network connecting all B&R nations.
- It emphasizes the nurturing of mutual understanding and trust and the formation of durable relationships through cultural and educational exchanges as well as industrial cooperation.
- It promotes open, inclusive, balanced and green economic globalisation through enhanced regional interconnectivity.
- But above all, it seeks to stimulate and create sustainable trade and investment exchanges where none exist before, thus benefitting every Belt and Road country and accelerating economic development for all.

Global Economic Trends: The Geo-Political Uncertainties

- There are currently many major geo-political uncertainties. What are the real effects of Brexit on the U.K., on the European Union and on the rest of the world? What policies will a new German Government pursue?
- The possibility of trade wars with the United States—across the Pacific (China, Japan and the Republic of Korea) and the Atlantic (Germany).
- The risks of protectionism, isolationism, nationalism and populism.
- And then there is the continuing North Korean crisis.
- Other potential hot spots include the South China Sea, the East China Sea, the Middle East, Africa and possibly the Taiwan Straits.

The Future of Economic Globalisation: The Effects of Globalisation

- Economic globalisation has resulted in the massive growth of world trade and through world trade world GDP.
- The growth of international trade led and propelled successively the growth of the GDPs of Japan, the four Newly Industrialized Economies (Hong Kong, Singapore, South Korea and Taiwan), and Mainland China. They all adopted export-led economic growth policies in the early stages of their economic development.
- This has resulted in the centre of gravity of the world economy shifting to East Asia from North America and Europe and within East Asia from Japan to Mainland China.
- Economic globalisation has also partially de-coupled the East Asian economies from the U.S. and Western European economics, meaning that they can continue to grow even as the U.S. and Western European economies go into recession, albeit at slower rates.
- However, economic globalisation has accelerated factor-price equalization around the world. Jobs for unskilled labor continue to move to lower-wage economies, except for tourism-related jobs. Any job that can be moved away will be moved way.
- Economic globalisation has resulted in a more equal distribution of income across countries and regions (but a less equal distribution of income within each country and region).

The Future of Economic Globalisation: The Benefits of Economic Globalisation

- The creation of winners on a global basis—voluntary international trade is always win-win for both trading-partner countries.
- The more efficient allocation of capital--Investors everywhere are moving their capital around the world to seek the highest rates of return.
- The enlargement of markets--The entire world is the potential market and the entire world population have become potential customers.
- The huge potential of both technological and market economies of scale can be realized through expansions, mergers, acquisitions, consolidations, and formation of strategic alliances and partnerships.
- Economic globalisation enhances the returns to intangible capital.

The Benefits of Economic Globalisation: International Trade

- Economic theory tells us that whenever a new economy joins the world economy, aggregate economic welfare of the world should increase. Moreover, the aggregate economic welfare of each country that participates in the world economy should also increase.
- The basic idea is a simple one: With voluntary international trade, if there is no gain for any of the trading partner countries, no trade will take place. In any such trade, both partner countries must gain. And the gains are sufficient to compensate the potential losers within each trading partner country.
- When a previously autarkic economy begins to participate in the world, international trade can only increase, and cannot decrease.
- However, the introduction of new international trade transactions will necessitate domestic adjustments in each of the trading partner countries, as some domestic industries will expand while other domestic industries will contract.

The Distribution of Gains from Voluntary International Trade is Indeterminate

- However, while voluntary international trade always brings gains to all trading-partner countries, the distribution of gains from trade, or the terms of trade, are not uniquely determined by the principles of comparative advantage alone but depends on the relative bargaining power of the trading partner countries.
- Thus, some economies will benefit more and some economies will benefit less, even though all economies will benefit.

The Future of Economic Globalisation: Both Winners and Losers are Created Domestically

- Moreover, imports can potentially disrupt domestic industries through its competition with domestically produced goods, changing the relative prices between different goods in the economy, and displacing workers employed in these domestic industries. Increased exports can also create losers by bidding away resources needed by other industries. Losers will be created in the domestic economy unless appropriate compensation and redistribution policies are adopted by the government. The market on its own cannot compensate the losers from international trade.

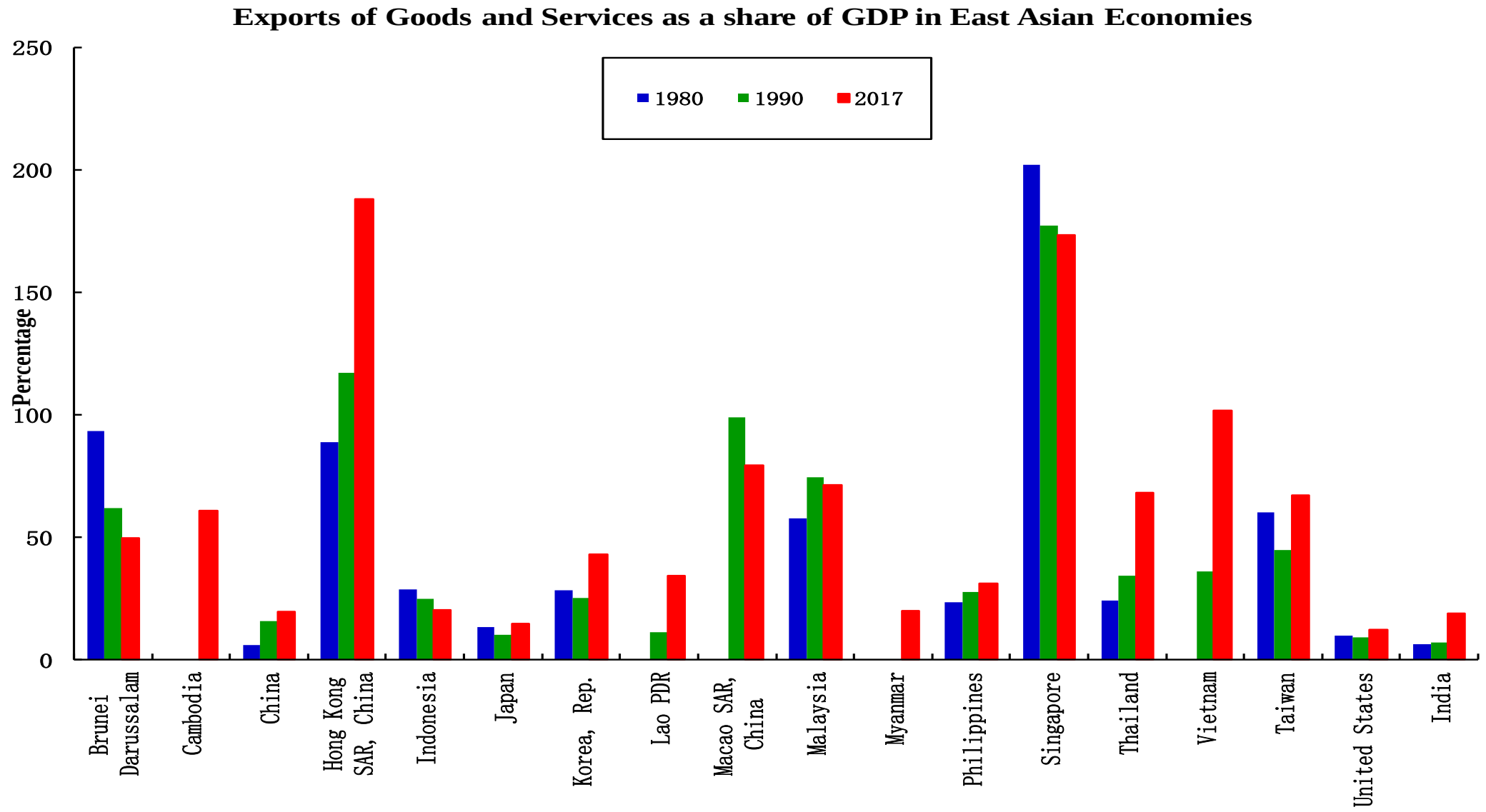
The Future of Economic Globalisation: Both Winners and Losers are Created Domestically

- Economic globalisation has begun to be questioned by the common people who have not benefitted from it. The "Brexit" vote, the election of President Donald Trump in the U.S., and the rise of isolationists and protectionists in Austria, France, Germany and the Netherlands and Germany, are all testimony that many people in these countries consider themselves to be "losers" from economic globalisation and are venting their anger and frustration by voting against the establishment or the so-called "elite".
- The losers should and must be compensated if globalisation were to continue in a sustainable manner. No one should have to lose as a result of globalisation--everyone can be made better off, because in principle, the gains should more than offset the losses.

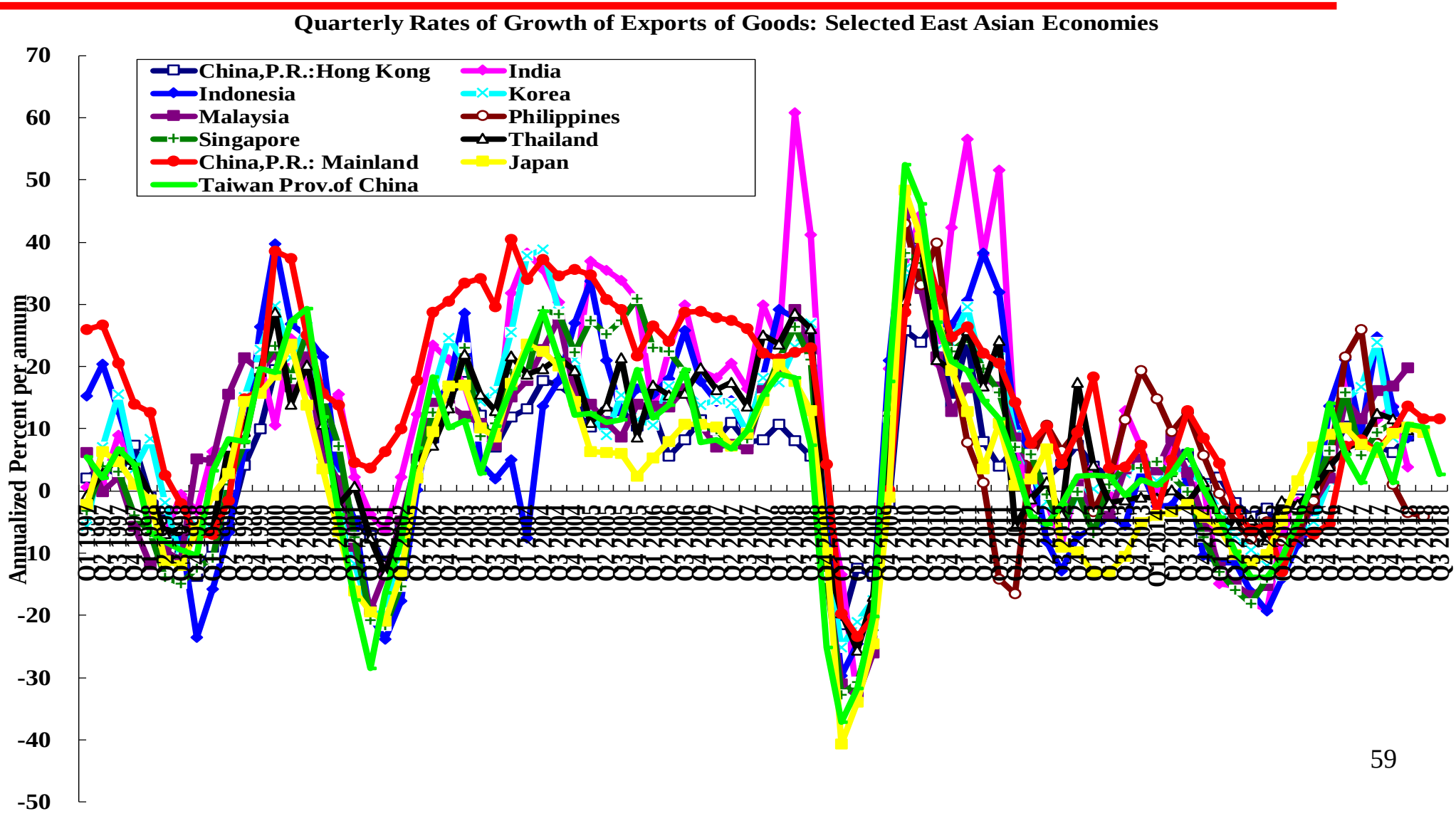
The China-U.S. Trade War:

- China, as a large continental economy with a huge domestic market, has a relatively low degree of export dependence, and has always been relatively immune to external disturbances. During the past four decades, while the rates of growth of Chinese exports and imports of goods fluctuate like those of all other economies, the rate of growth of Chinese real GDP has remained relatively stable, and in fact has always stayed positive (see the following charts which display the quarterly rates of growth of exports, imports and real GDP of selected Asian economies from 1997 to the present).

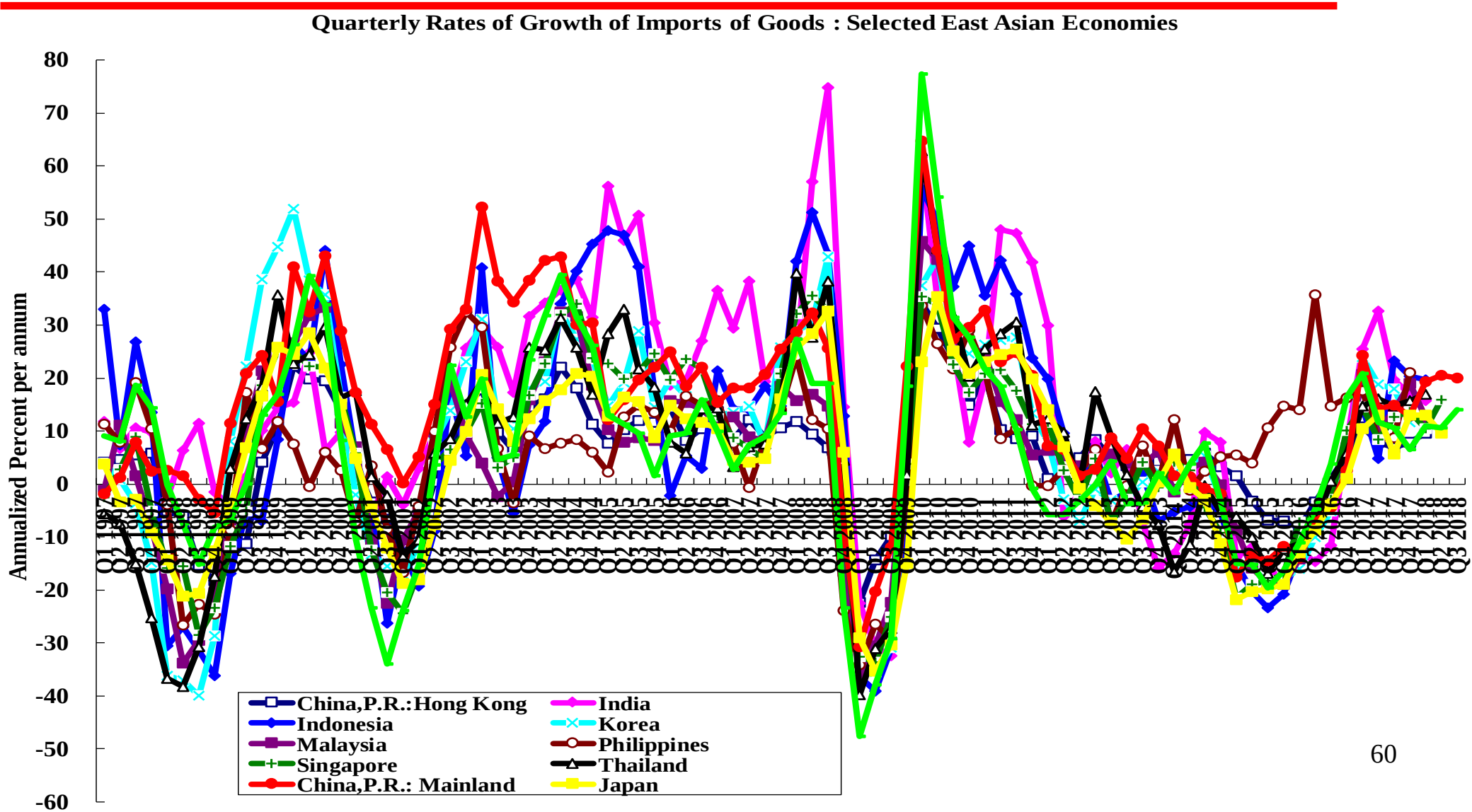
Exports of Goods and Services as a Share of GDP in East Asian Economies, India & U.S.



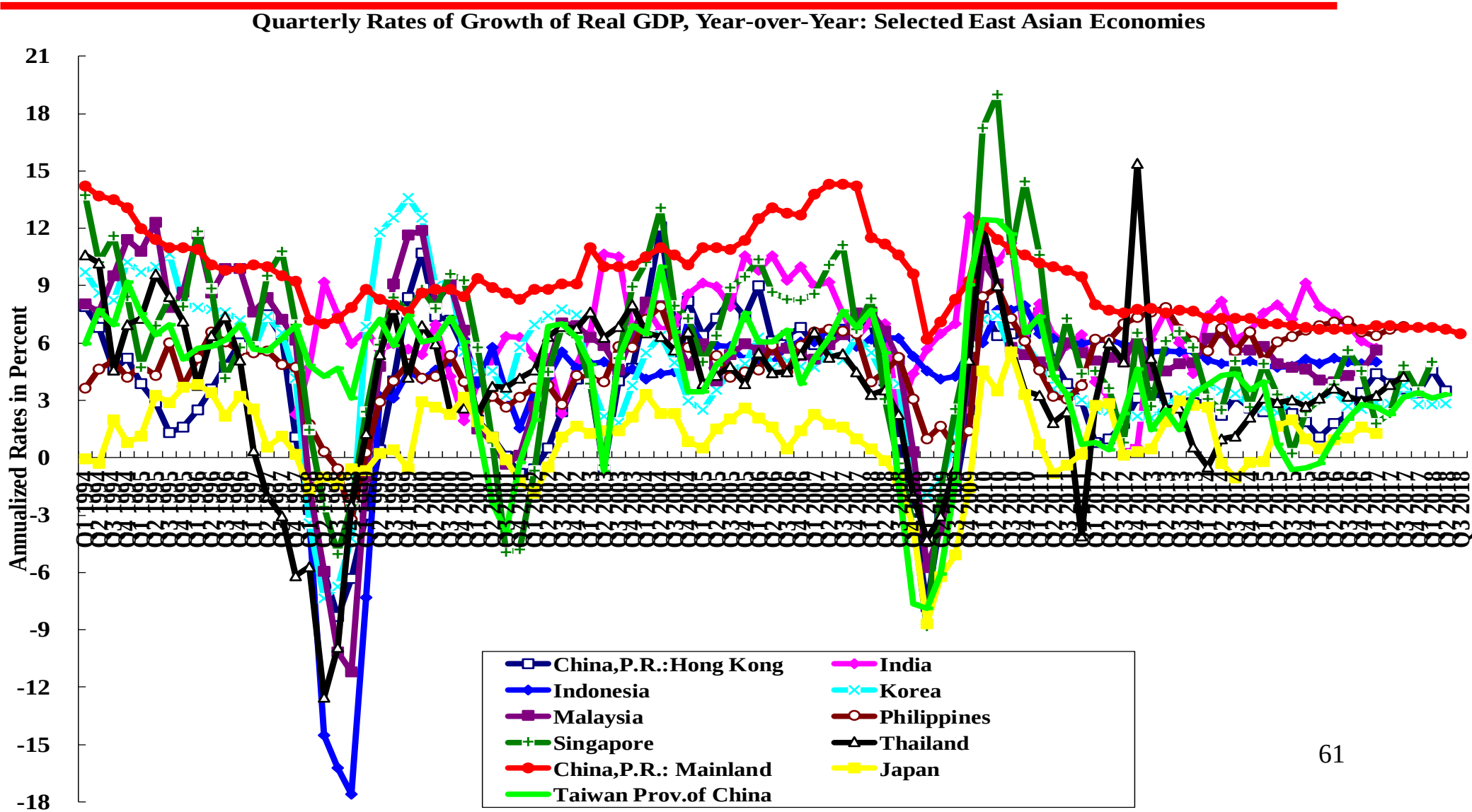
Quarterly Rates of Growth of Exports of Goods: Selected Asian Economies



Quarterly Rates of Growth of Imports of Goods: Selected Asian Economies



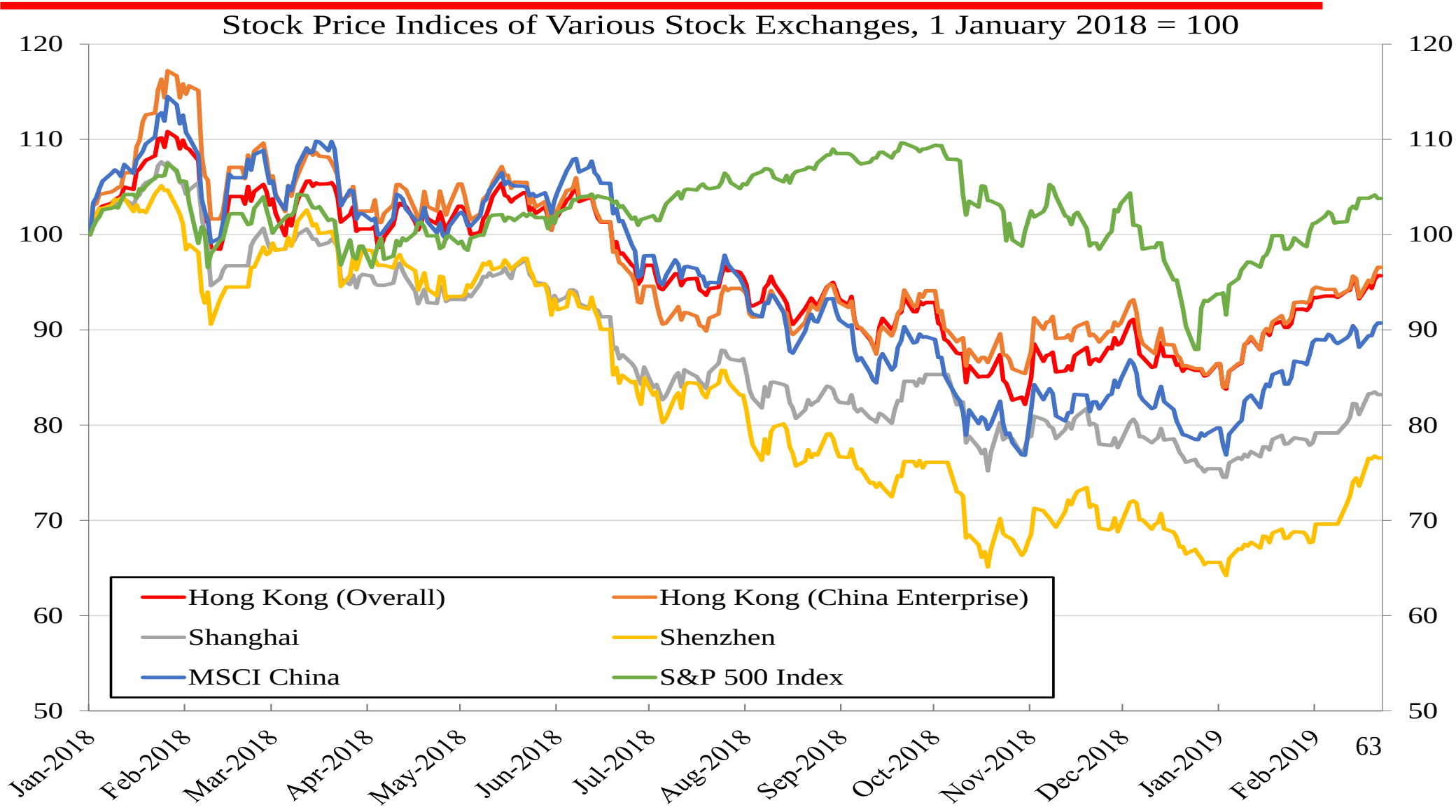
Quarterly Rates of Growth of Real GDP, Y-o-Y: Selected Asian Economies



The China-U.S. Trade War: Immediate Impacts

- The Chinese stock markets have taken a hit. This is an area where the psychological factor dominates. As of the end of 2018, the shares on the Shenzhen Stock Exchange had on average lost 30%, Shanghai 20%, and Hong Kong 10%. In contrast, the Standard and Poor 500 Index did not suffer any loss on a whole-year (2018) basis.
- At the beginning of 2019, the Chinese stock market continued to fall, until more recently. The Standard and Poor 500 Index also fell but has also begun to recover.
- However, the Chinese stock markets are not a good barometer of the state of the Chinese real economy. The majority of Mainland investors are individual retail investors. They are typically short-term traders who tend to leave the market at the first sign of potential trouble. The average holding period of individual Chinese investors is less than 20 trading days. The institutional Chinese investors have a slightly longer average holding period of between 30 and 40 trading days.
- It should also be borne in mind that the increase in the rates of interest in the U.S. and elsewhere would also have affected asset prices around the world negatively, so it was not the sole effect of the China-U.S. trade war.

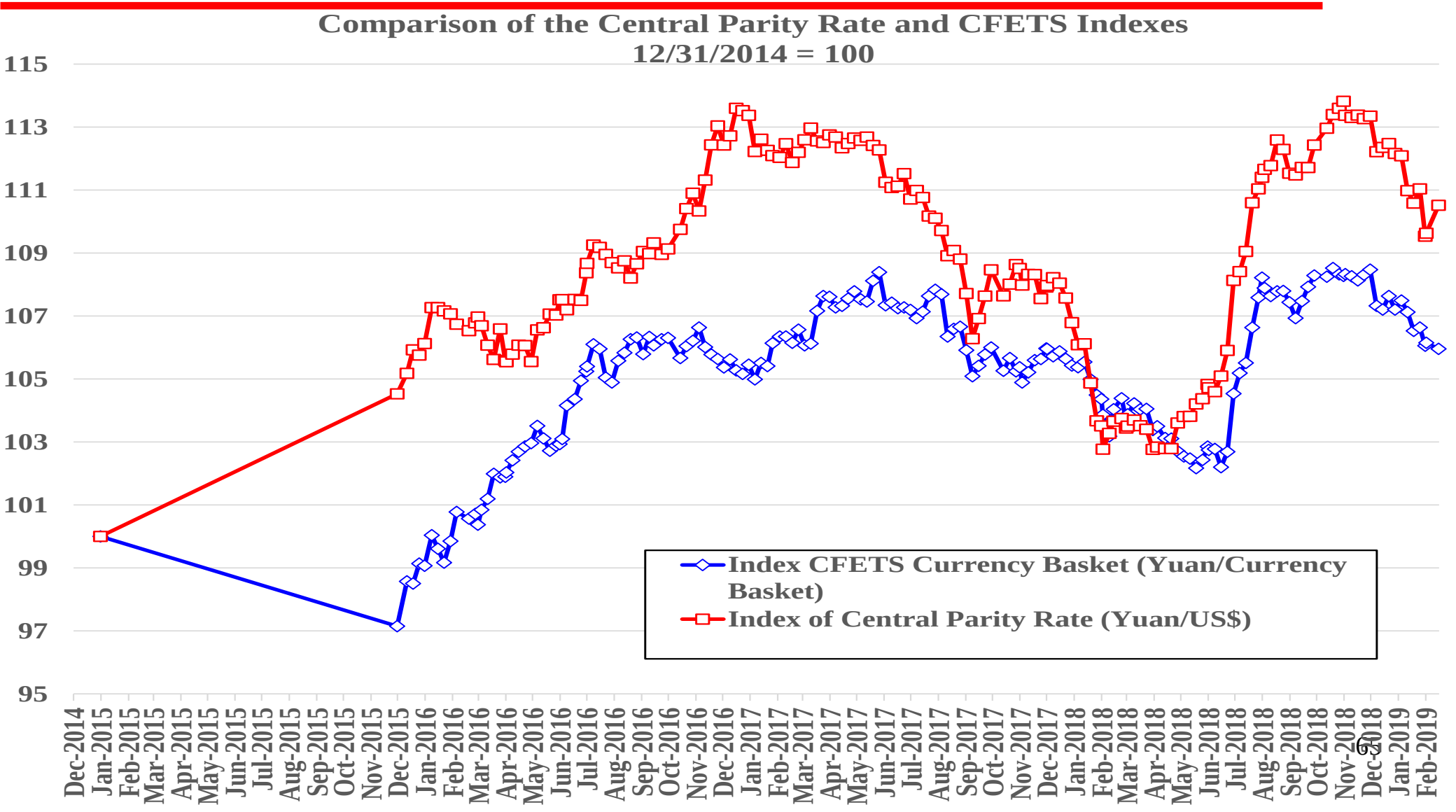
The Chinese, Hong Kong and U.S. Stock Market Indexes, Year to Date



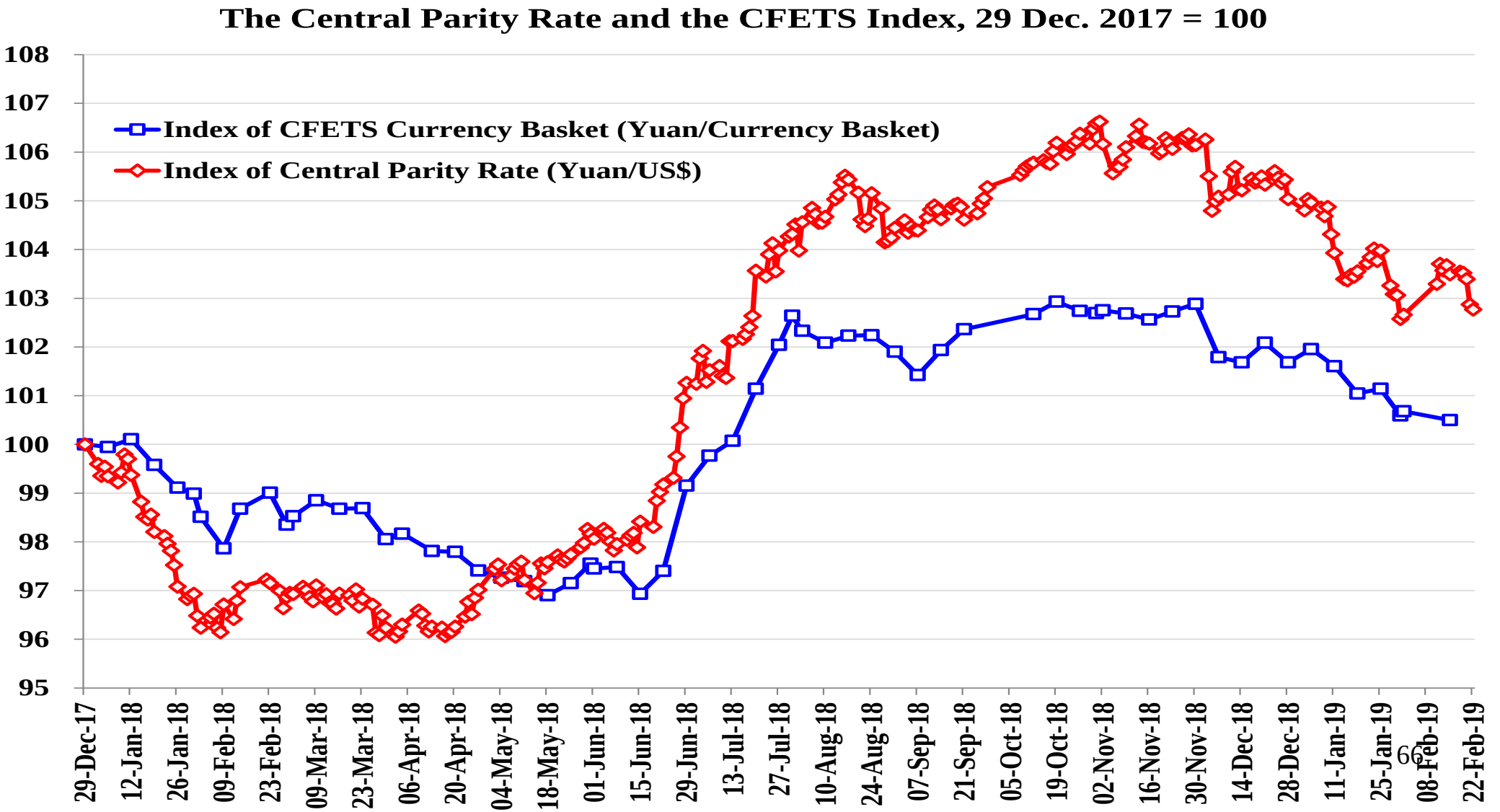
The China-U.S. Trade War: Immediate Impacts

- The Renminbi exchange rate has also been affected by the trade war. Relative to the US$, the Renminbi has devalued by approximately 8% since the end of January 2018 (at one time almost 10%). However, the deviation of the Renminbi central parity rate from the CFETS (China Foreign Exchange Trade System) Index, the exchange rate of a Chinese trade-weighted basket of currencies, has remained within the 3% range. Our focus should be on the central parity rate (onshore rate) rather than the offshore rate and on its relation to the CFETS Index.
- The Renminbi does not follow the US$ because the U.S. accounts for only slightly more than 20% of Chinese international trade. For the Renminbi to follow the US$ when the US$ rises with respect to other currencies implies that China will raise its price of exports to all her other customers that account for 80% of Chinese exports, which makes very little sense. Similarly, when the US$ falls with respect to other currencies, if the Renminbi follows the US$, it will imply that China lowers its price of exports to all her other customers, which also makes little sense.

The Renminbi Central Parity Exchange Rate and the CFETS Index (31 Dec. 2014 = 100)



The Renminbi Central Parity Exchange Rate and the CFETS Index



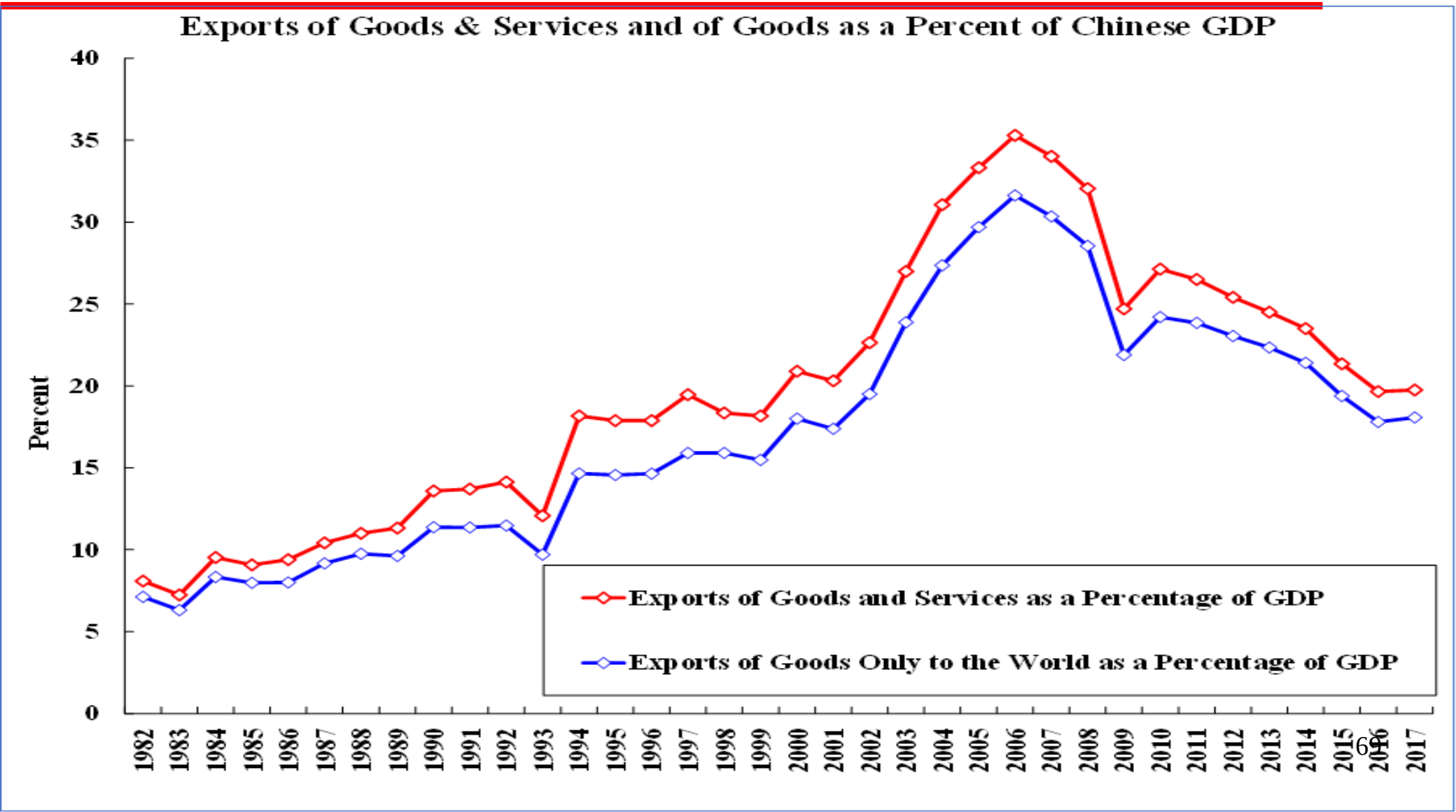
The China-U.S. Trade War: Immediate Impacts

- Maintaining the relative stability of the Renminbi exchange rate with respect to the CFETS (China Foreign Exchange Trade System) Index, the exchange rate of a Chinese trade-weighted basket of currencies, implies that the Renminbi exchange rate vis-a-vis the currency of an average trading-partner country of China will be relatively stable and that the international purchasing power of the Renminbi will also be relatively stable.
- It is in China's interests to maintain a relatively stable Renminbi exchange rate. It is the only way for the internationalisation of the Renminbi to become a reality.

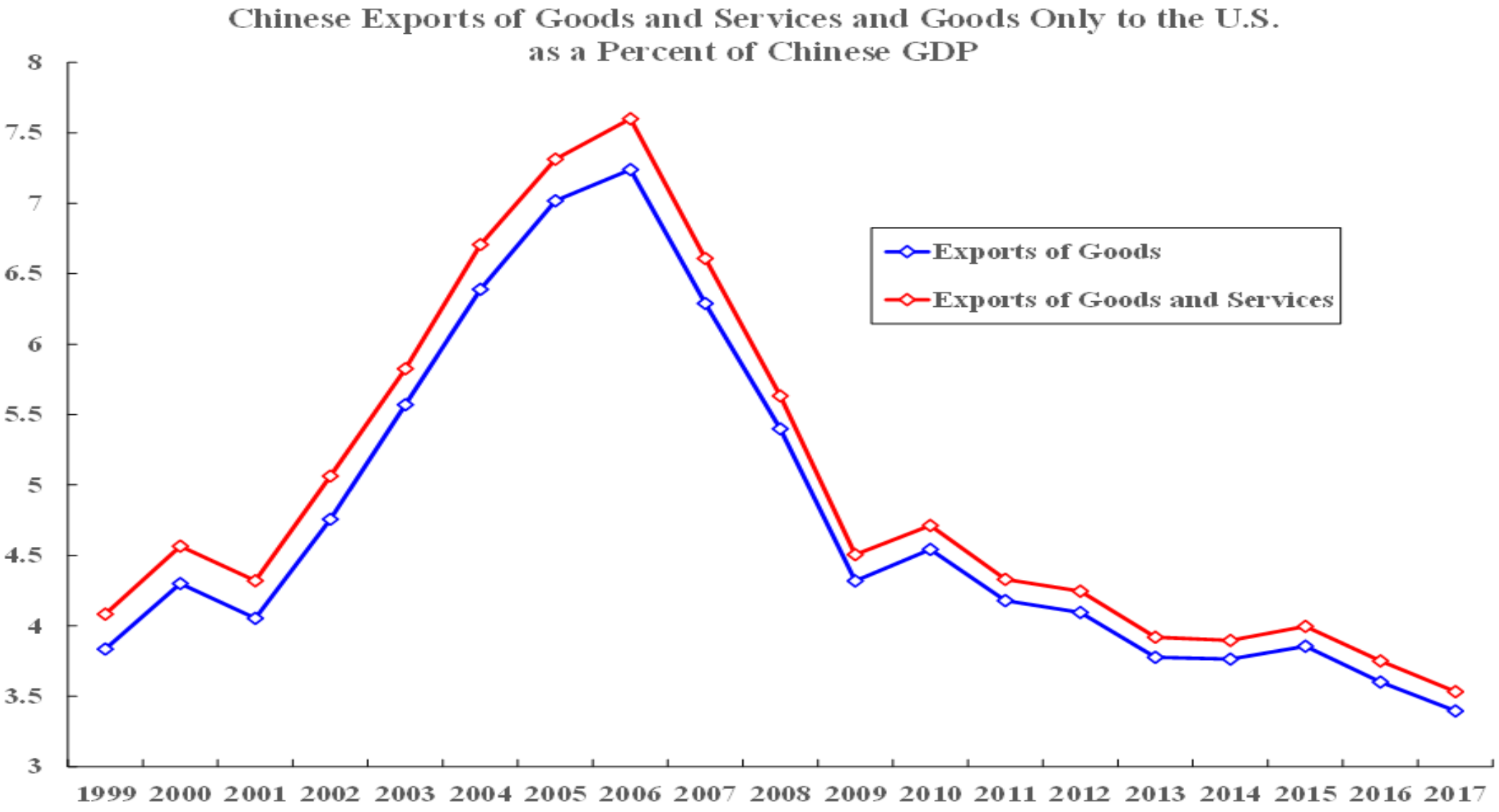
The China-U.S. Trade War: Real Impacts

- Moreover, over the past ten years, Chinese dependence on exports has been declining over the past decade. The share of exports of goods in Chinese GDP has fallen from a peak of 35.3% in 2006 to 19.8% in 2017. The share of exports of goods to the U.S. in Chinese GDP has also fallen by more than half, from a peak of 7.2% in 2006 to 3.4% in 2017. (See the following charts.)
- During this same period, the growth of Chinese exports to the world and to the U.S. has also slowed significantly. Chinese exports to the world grew at an average annual rate of 22.6% in the decade 1998-2007, but slowed to only 7.9% in the following decade, 2008-2017. Similarly, exports to the U.S. grew at 22% per annum in the decade 1998-2007, but slowed to less than 7% per annum in the most recent decade. Exports is no longer the engine of Chinese economic growth.

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



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



The China-U.S. Trade War: Real Impacts

- U.S. tariffs have been imposed on US$250 billion of U.S. imports of goods from China (arrival value, approximately equal to US$227 (250 x 10/11) billion of Chinese exports of goods to the U.S., f.o.b. or departure value), equal to approximately half of Chinese exports of goods to the U.S. in 2017.
- Thus, a maximum of Chinese exports of goods amounting to approximately 1.7% (3.4%/2) of Chinese GDP will be affected.
- The U.S. tariff rates range from 10% to 25% on the value of the imports from China. These rates will be prohibitive for most of the goods imported from China, especially if the 10% tariff rate is raised to 25%, as neither the Chinese exporters nor the U.S. importers have the kind of profit margins that can afford these tariffs.

The China-U.S. Trade War: Real Impacts on the Chinese Economy

- But the direct domestic value-added content of Chinese exports to the U.S. is less than 25%. Thus, the maximum loss in Chinese GDP, assuming that half of the exports to the U.S. is completely halted, in the first instance, may be estimated at 0.43% (1.7% x 0.25), a tolerable level, especially for an economy growing at an average annual real rate of 6.5 percent and with a per capita GDP of US$9,137 in 2017.
- However, the reduction of exports leads to a reduction in the demand for domestic inputs used in their production, which in turn leads to a second-round reduction in the demand for domestic inputs used in the production of the domestic inputs.
- With the indirect, that is, second-, third-, fourth- and higher-round effects of the reduction of Chinese exports kicking in, the total domestic value-added content affected will eventually increase to 66 percent cumulatively. This implies ultimately a maximum total loss in Chinese GDP of 1.12% (1.7% x 0.66). In absolute terms, this amounts to US$137 billion in 2017 prices.

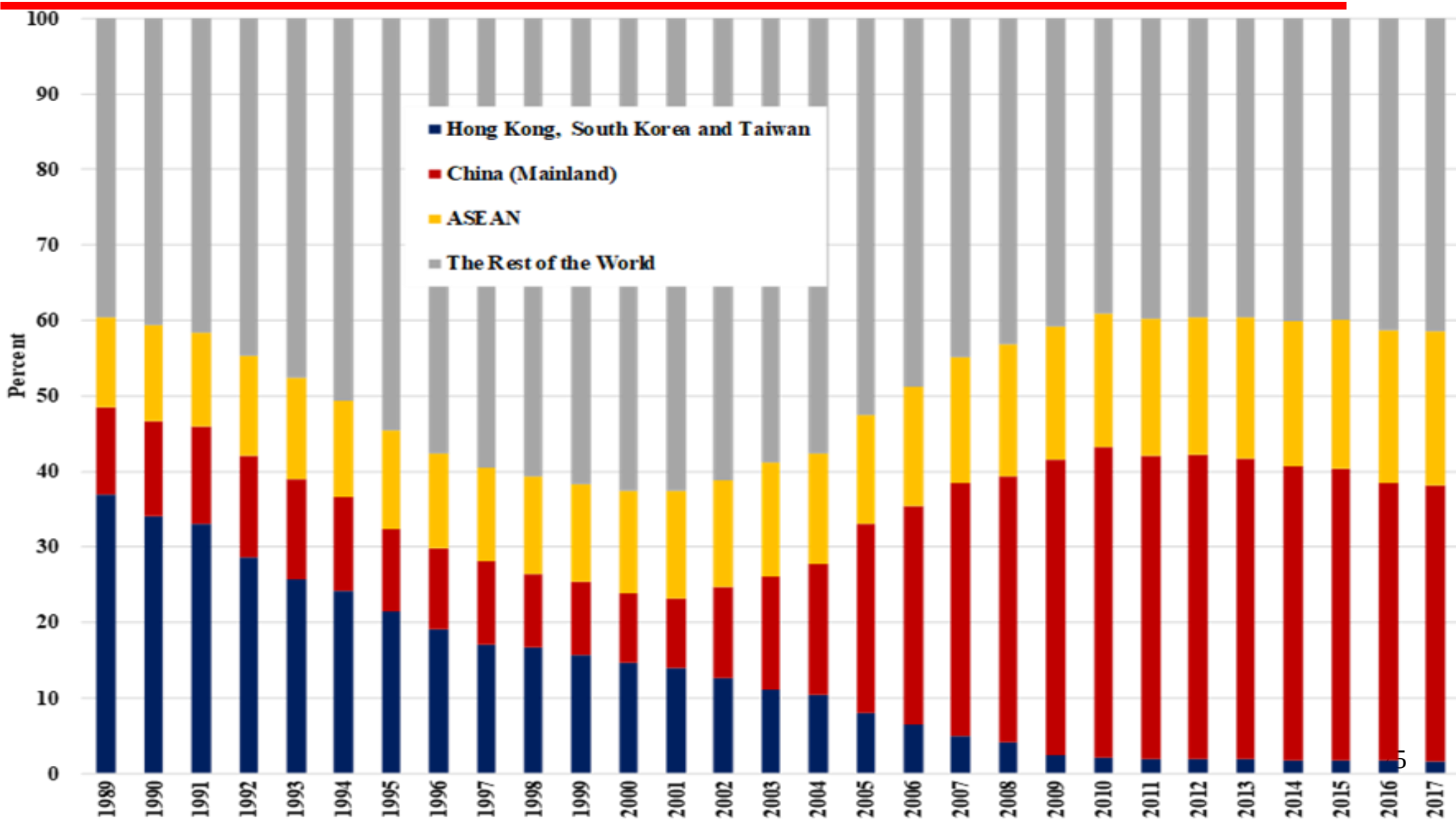
The China-U.S. Trade War: Real Impacts on the Chinese Economy

- A reduction of 1.1% from an expected annual growth rate of 6.5% leaves 5.4%, still a very respectable rate compared to the average of 3.7% for the world in 2018 projected by the International Monetary Fund (IMF). The IMF has recently lowered its projected rates of growth of world GDP for 2019 and 2020 to 3.5% and 3.6% respectively.
- There is also the threat of a 25% tariff on the remaining US$267 billion Chinese exports of goods to the U.S. Since a 25% tariff is basically prohibitive, if implemented, it will mean the total cessation of Chinese exports of goods to the U.S. The maximum damage that can be done is 2.24% (3.4% x 0.66) of GDP, which is significant but not intolerable.
- However, it seems unlikely that the tariffs on this last batch of Chinese exports to the U.S. will be implemented in full because they consist of products such as the Apple iPhones, garments and shoes and packaged re-exports of semi-conductors. The incidence of the tariffs will be mostly borne by U.S. consumers and producers including Apple Inc. (One incidental beneficiary will be Samsung of South Korea whose Galaxy cellphones compete with the iPhones.)

The China-U.S. Trade War: Real Impacts on the Chinese Economy

- In the longer run, if tariffs continue on both sides, the U.S. importers will begin to replace Chinese imports by imports from other Asian countries such as Vietnam, Cambodia and Bangladesh, and eventually perhaps even North Korea.
- But the shift in the sourcing of imports away from China has already been occurring since 2010, because of the rise in labour costs in China and because of the appreciation of the Renminbi. This is similar to the earlier shift of the sources of U.S. imports of apparel from Hong Kong, South Korea and Taiwan to Mainland China (see the following chart). The new U.S. tariffs will accelerate this process.
- The ASEAN and South Asian countries may benefit, but it is really hard to predict by how much because the supply chains today are so internationalised. However, it is unlikely, in most cases, that the tariffs will stimulate new domestic production in the U.S.

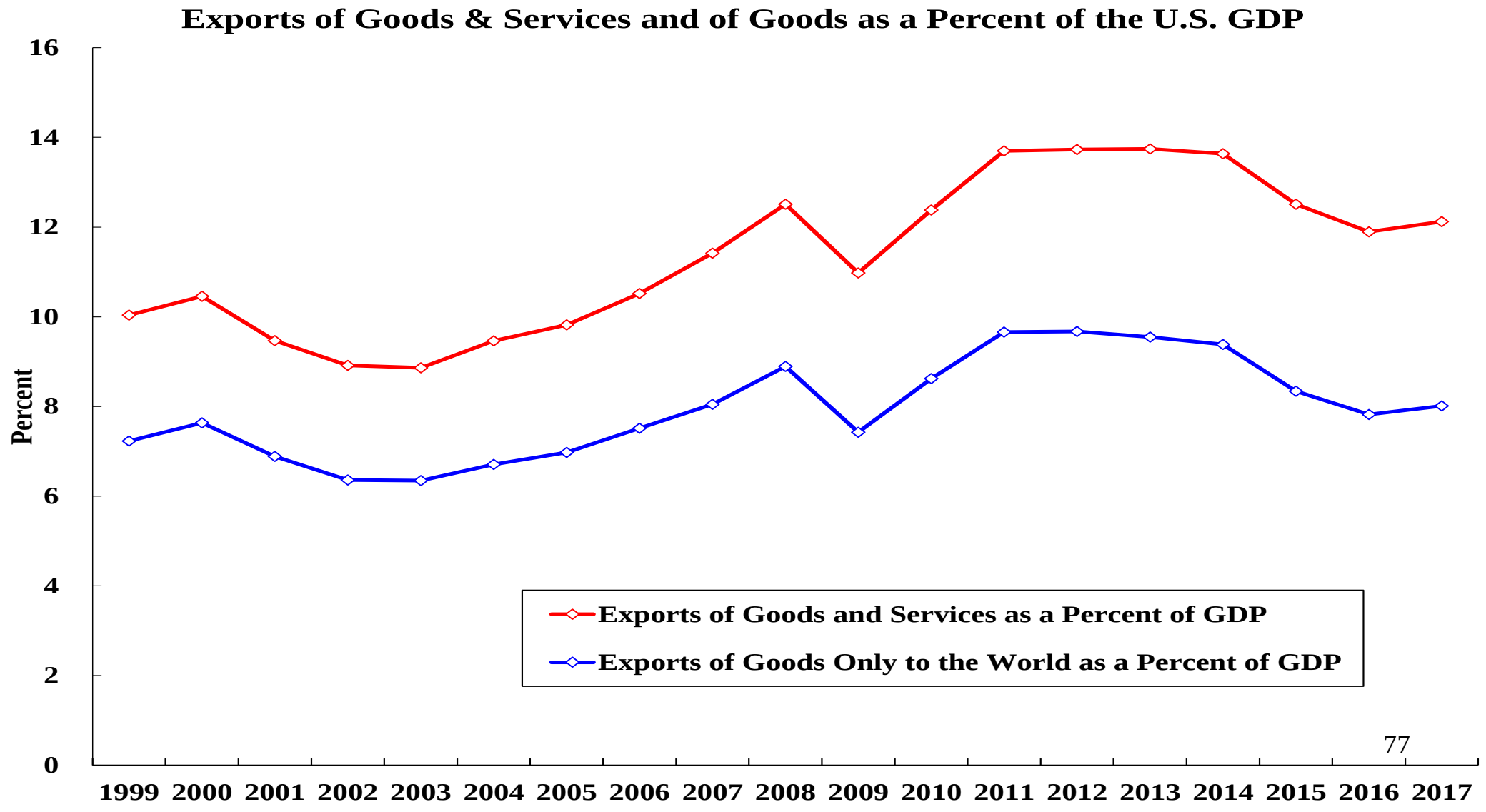
The Distribution of U.S. Apparel Imports by Countries of Origin



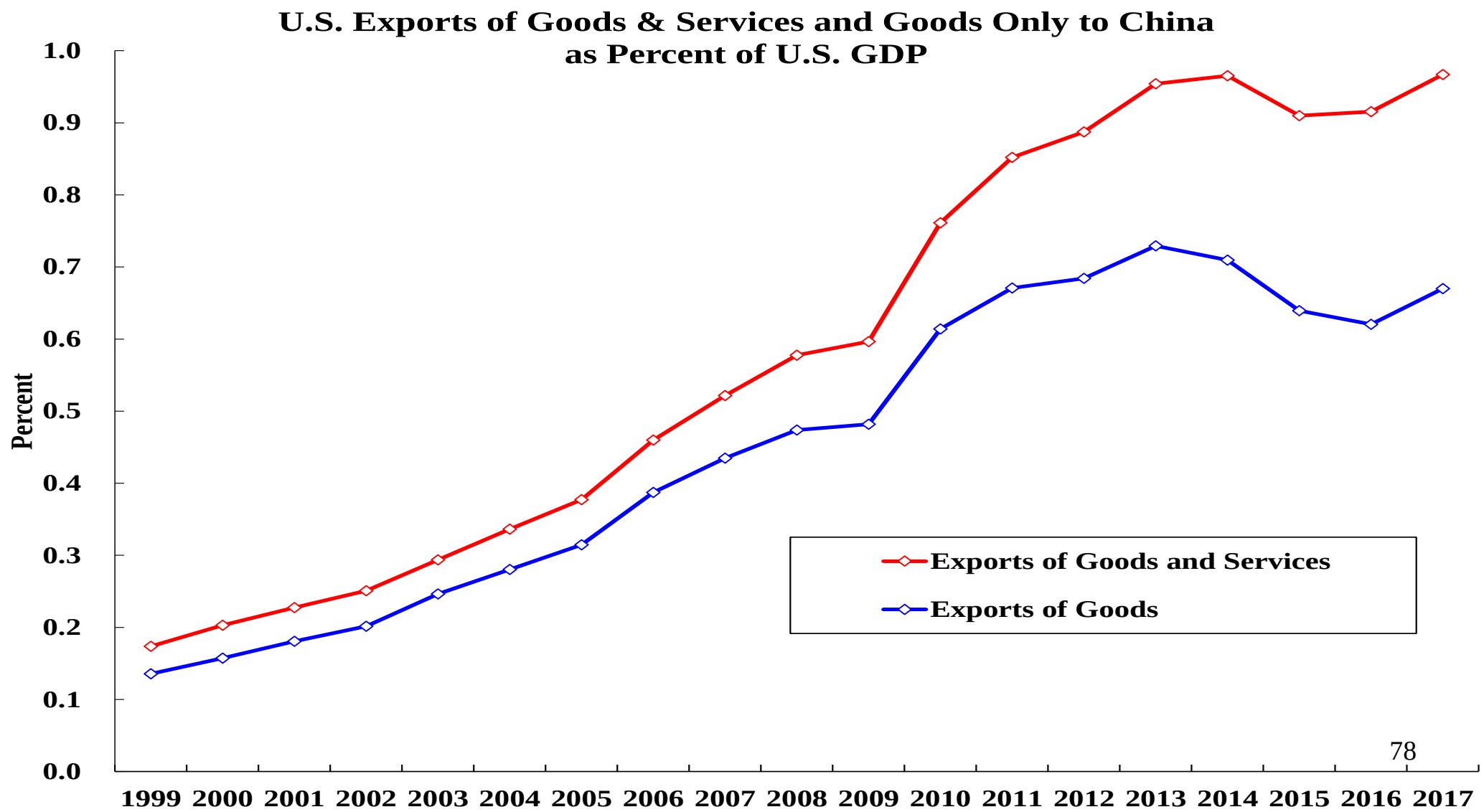
The China-U.S. Trade War: Real Impacts on the U. S. Economy

- The degree of dependence of the U.S., a large continental economy, on exports is even lower than that of China's. U.S. exports of goods and services combined as a share of GDP was 12.12% in 2017. The exports of goods alone as a share of GDP was only 8.01%.
- The shares of U.S. exports of goods and services and goods alone to China in GDP was 0.97% and 0.67% (US$130 billion) respectively in 2017, much lower than those of Chinese exports to the U.S. However, the shares of U.S. exports of both goods and services and goods only to China have been rising over time.
- At the present time, Chinese tariffs have been imposed on US$110 billion of U.S. exports of goods, with the first US$50 billion at rates up to 25% and the subsequent US$60 billion at rates ranging between 5% and 10%.

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



The China-U.S. Trade War: Real Impacts on the U. S. Economy

- The direct domestic value-added content of U.S. exports of goods to China may be estimated to be 50.8%. Thus, the maximum loss in the U.S., assuming that all of the exports to China is completely halted by the tariffs, may be estimated in the first instance at 0.34% (0.67% x 0.508), less than the initial impact on Chinese GDP of 0.43%.
- Moreover, it is unlikely that all of the U.S. exports of goods will be halted; for example, computer chips will continue to be imported by China in large quantities in the medium term. (The price elasticity is low.) Suppose only half of U.S. exports of goods to China is halted, it would amount to a loss of U.S. GDP of 0.17%. This is not significant for the U.S. economy, which grew 2.9% in 2018 (2.6% in 2018Q4), as a whole. U.S. GDP per capita is approximately US$60,000. The U.S. economy can easily weather a reduction of 0.17% in its rate of growth.

The China-U.S. Trade War: Real Impacts on the U. S. Economy

- With the indirect, that is, second-, third-, fourth- and higher-round effects of the reduction of U.S. exports of goods kicking in, the total domestic value-added affected increases to 88.7% cumulatively. This implies ultimately a total loss in U.S. GDP of 0.30% (0.67%/2 x 0.887), assuming that half of U.S. exports to China will be halted.
- In absolute terms, this amounts to US$58 billion (0.30 x 19.4 trillion) in 2017 prices, much less than the estimated Chinese loss in terms of GDP of US$137 billion.
- However, the U.S. has a significant trade surplus in services with China, estimated to be US$40 billion by the U.S. Government but US$54 billion by the Chinese Government for 2017. This surplus may be in jeopardy if China-U.S. relations deteriorate further.

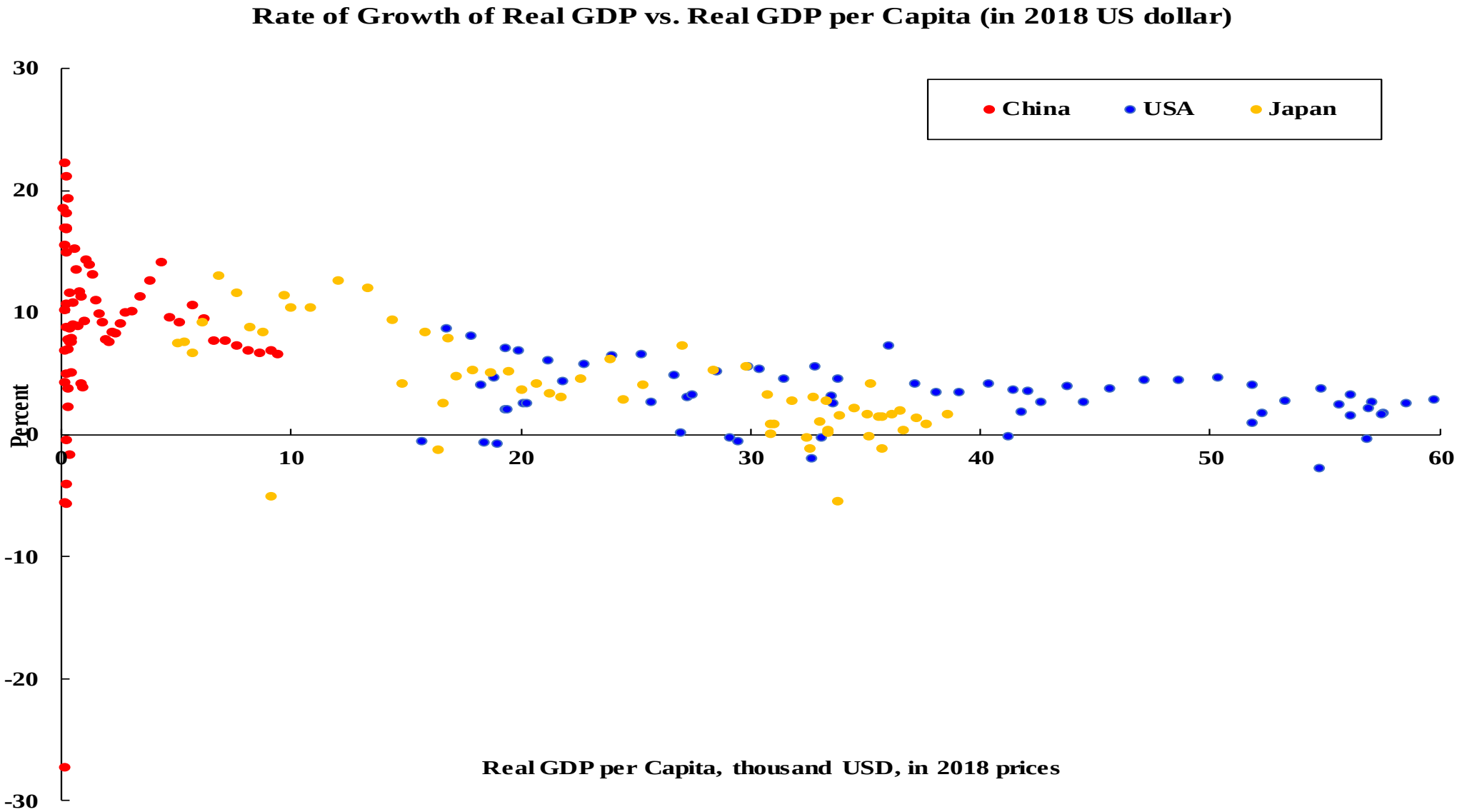
Projections of the Future: Near-Term Forecasts by International Organizations

	World Bank			IMF	
	Real GDP Growth Forecasts			Real GDP Growth Projections	
	2019	2020	2021	2019	2020
World	2.9	2.8	2.8	3.5	3.6
China	6.2	6.2	6	6.2	6.2
the U.S.	2.5	1.7	1.6	2.5	1.8
EU	1.6	1.5	1.3	1.6	1.7
Japan	0.9	0.7	0.6	1.1	0.5
India	7.5	7.5	7.5	7.5	7.7

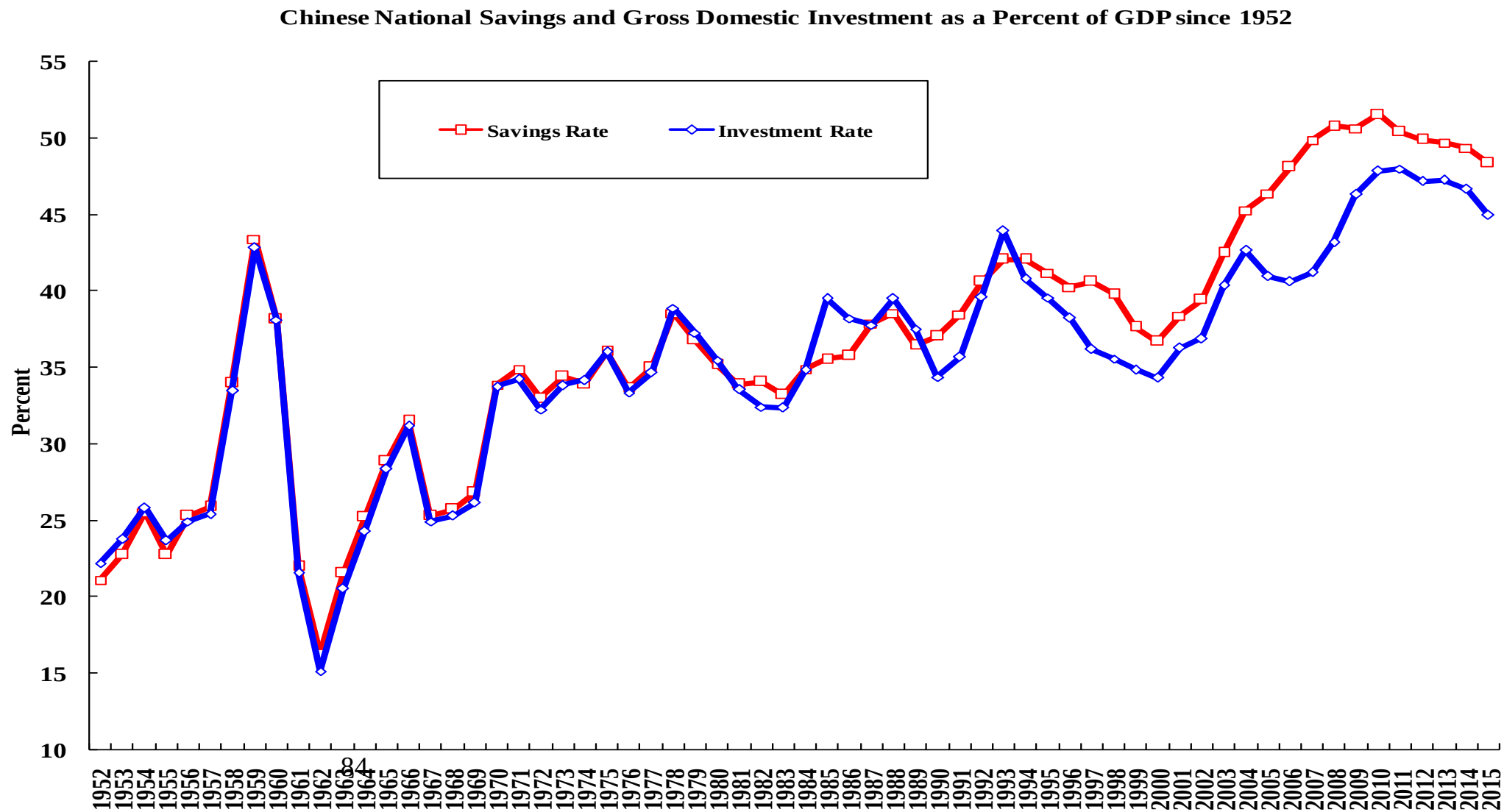
Projections of the Future: Long-Term Forecasts of the Chinese and the U.S. Economies

- It is assumed that the Chinese economy will continue to grow above 6% per annum for a few years, declining gradually to between 5% and 6%, and that the U.S. economy will grow at an average rate of 3% per annum between now and 2050.
- In 2018, the Chinese economy grew 6.6%. The 2019 target growth rate for the Chinese economy is between 6% and 6.5%. In 2018, the U.S. economy grew at 3%. But both the U.S. Federal Reserve Board and the U.S. Congressional Budget Office expect 2.3% growth for 2019.
- It may be thought that the Chinese economy will be unable to sustain an approximately 6% average annual rate of growth for such a long time. But given the still relatively low level of real GDP per capita in China, such a rate of growth should be possible for at least a couple of decades (see the following chart in which the experiences of China, Japan and the U.S. are compared.)
- The projections of Chinses and U.S. real GDP and real GDP per capita between now and 2050 are presented in the following charts.

Growth Rates vs. Levels of Chinese, U.S. and Japanese Real GDP (2018 tril. US$)



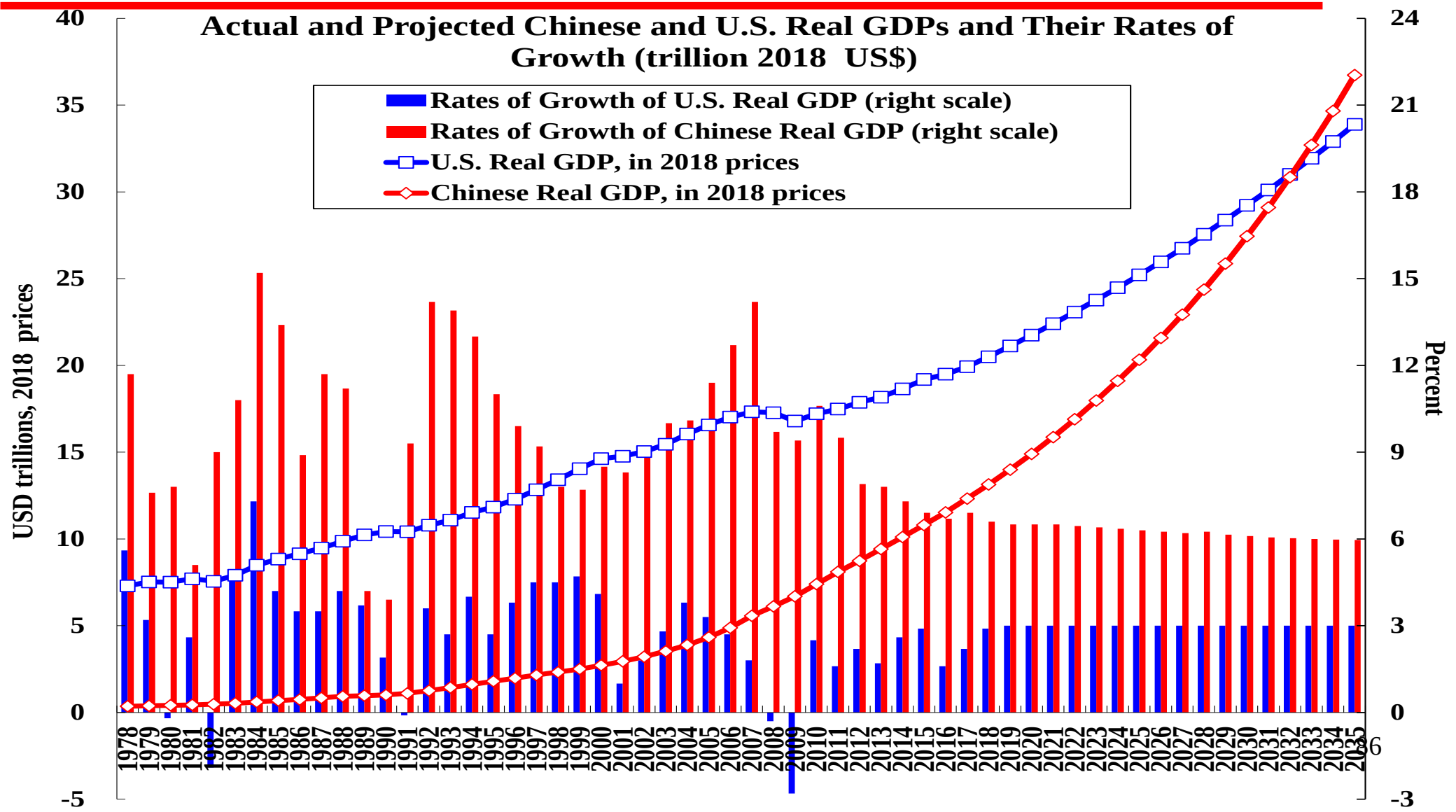
Chinese National Saving and Gross Domestic Investment as Percents of GDP



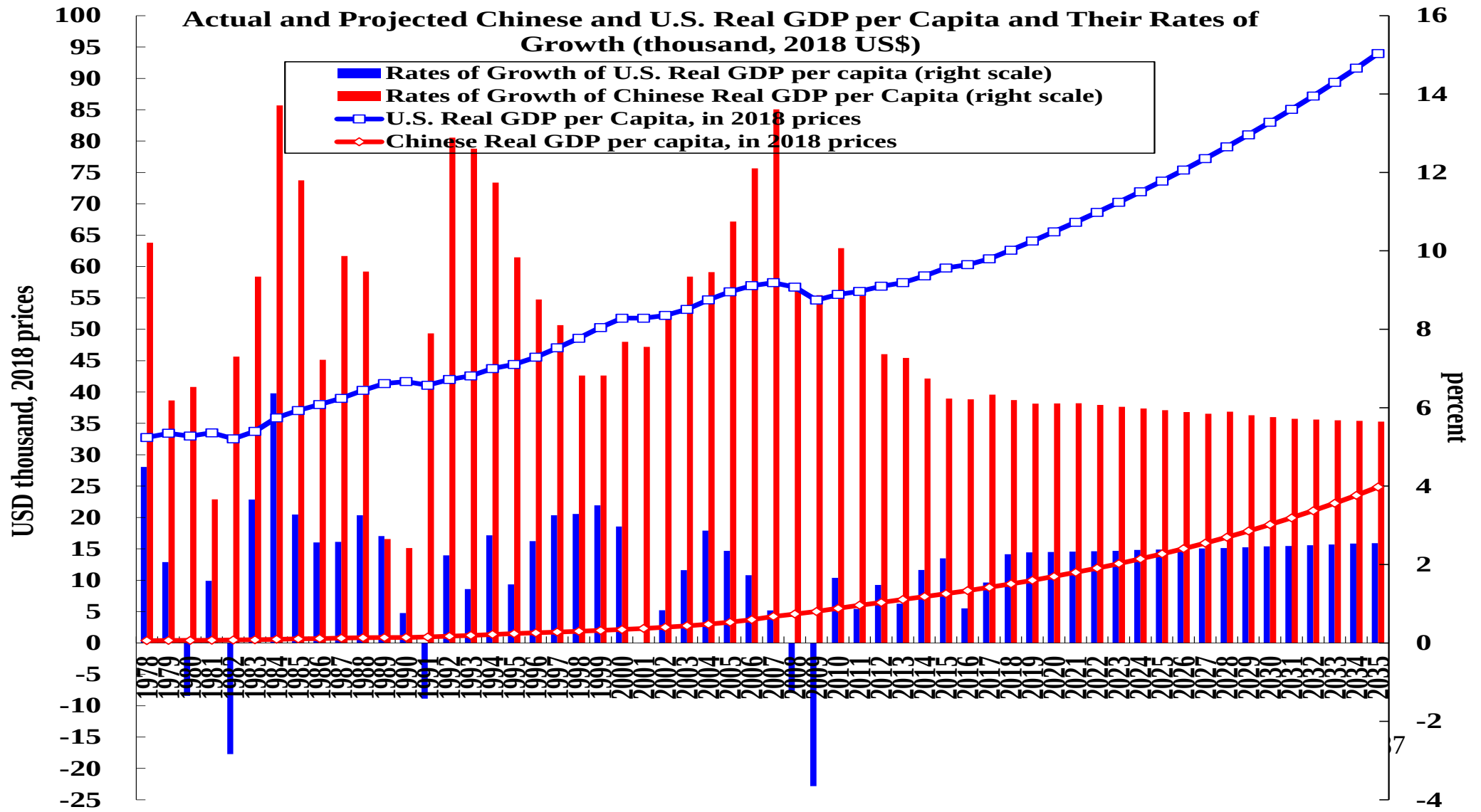
Projections of the Chinese and the U.S. Economies

- In his work report to the Nineteenth National Congress of the Communist Party of China, President XI Jinping identified several milestones in his speech at the Nineteenth Party Congress at 2020, 2035 and 2050.
- The first milestone is to become a moderately well-off society by 2020. Our projections show that by 2020, Chinese real GDP per capita (in 2018 prices) will exceed US$10,582 (compared to US$65,541 for the U.S.).
- Our projections also show that by 2033, Chinese real GDP will surpass U.S. real GDP (US$32.7 trillion versus US$31.9 trillion), making China the largest economy in the world. However, in terms of real GDP per capita, China will still lag behind significantly, with US$22,088 compared to US$89,363 for the U.S.
- By 2050, Chinese real GDP will reach US$83 trillion compared to US$53 trillion for the U.S. In terms of real GDP per capita, China will reach US$53,408, still below the current (2018) level of U.S real GDP per capita of US$62,609, compared to US$138,693 for the U.S.

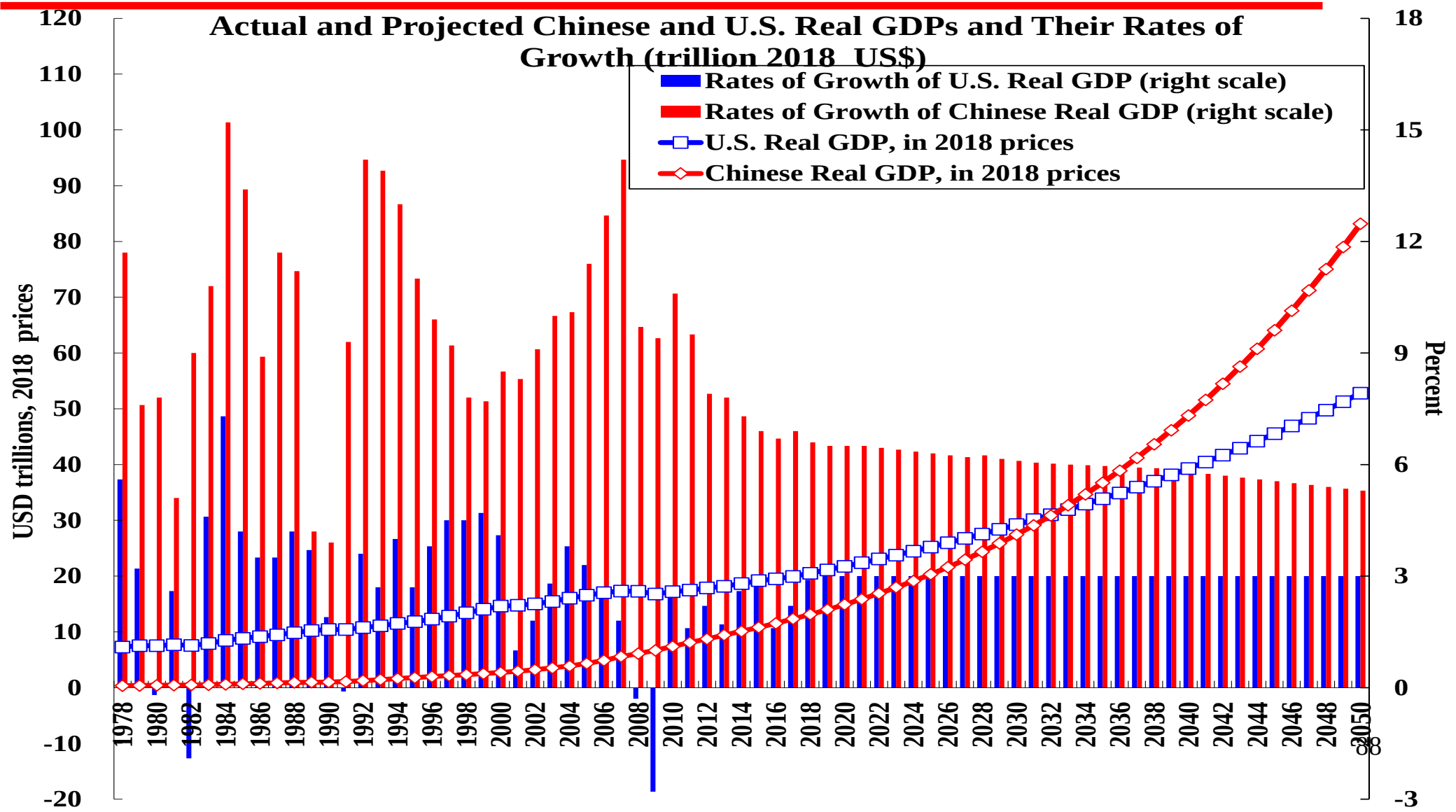
Actual and Projected Levels and Growth Rates of Chinese and U.S. Real GDP (2018 tril. US$)



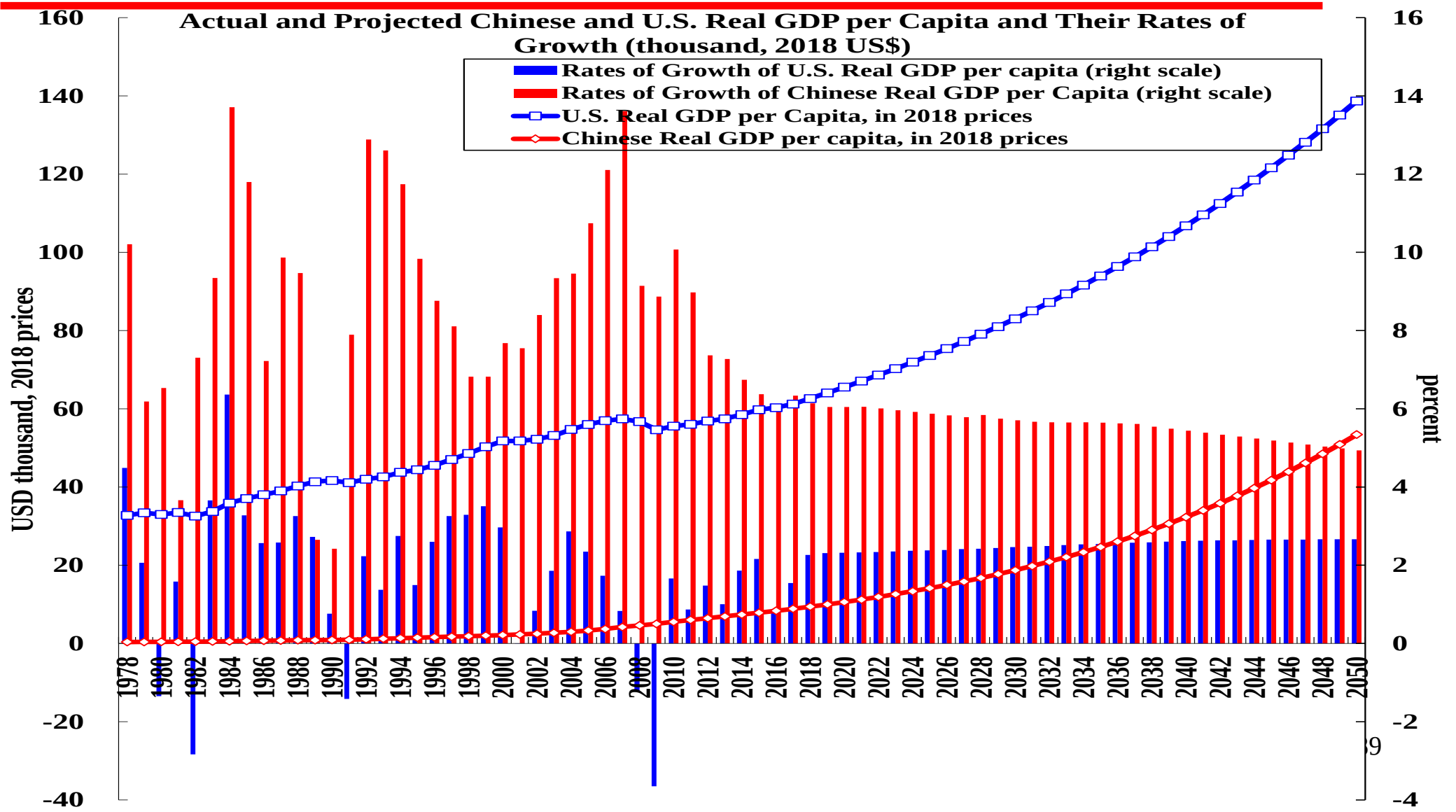
Actual and Projected Chinese and U.S. Real GDP/Capita and Their Annual Rates of Growth (1,000 2018 US$ & %)



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$)



Concluding Remarks

- The principal problem of economic globalisation is one of the domestic distribution of the gains within each country and region. (Of course there is also the issue of the distribution of gains among the trading-partner countries, but that is a different problem altogether.) It is the responsibility of each of the domestic governments to try to redistribute part of the gains from the winners to the losers, so that everyone benefits. There should be enough overall net gain to make this possible. However, the free market on its own will not be able to do it. Government intervention is necessary.
- This will include the provision of transitional and if necessary long-term income support to the displaced workers and of re-training and re-employment assistance.

Concluding Remarks

- Can economic globalisation continue in the future? Without continuing globalisation, can the currently developing economies become developed?
- If the individual governments can ensure that that every one of their respective citizens wins under economic globalisation, that no net losers are created under continuing globalisation, then there will be popular support for continuing globalisation.
- President XI Jinping has said on numerous occasions that China is committed to supporting economic globalization and an open, rule-based international trade system. China's Belt and Road Initiative does support continuing economic globalisation.

Concluding Remarks

- The centre of gravity of the world economy has been and will continue to be gradually shifting to East and South Asia. The centre of gravity of the East Asian economy has been gradually shifting to China.
- The Chinese and East Asian economies have been partially de-coupled from the United States and Europe.
- The Chinese economy will catch up to the U.S. economy in terms of aggregate GDP some time around 2033, plus or minus a couple of years. However, it will take the end of the Twenty-First Century before the Chinese economy can catch up to the U.S. economy in terms of per capita real GDP.