

What Makes China Grow? 中国成长的动力

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Global Economic Modeling: A Conference in Honor of Lawrence Klein

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*All opinions expressed herein are the author's own and do not necessarily reflect the views of any of the organisations with which the author is affiliated.

Introduction:

Professor Lawrence R. Klein and China

- ◆ An intellectual giant, the patriarch of the Project LINK family, a mentor, a role model, and a most respected friend
- ◆ Aaron Gordon, Bert Hickman and Rudolf R. Rhomberg
- ◆ The construction of the first econometric model of China and participation in Project LINK in the late 1960s
- ◆ The construction of the trade matrix model with Prof. Bert Hickman
- ◆ The delegation of the American Economic Association to China, led by Professor Lawrence Klein in 1979
- ◆ The Summer Palace Workshop on Econometrics in 1980
- ◆ The establishment of the Institute of Quantitative and Technical Economics, The Chinese Academy of Social Sciences
- ◆ Adviser to the State Planning Commission
- ◆ Explaining Chinese economic growth—
 - ◆ what are factors common to all economies?
 - ◆ What are factors unique to China?

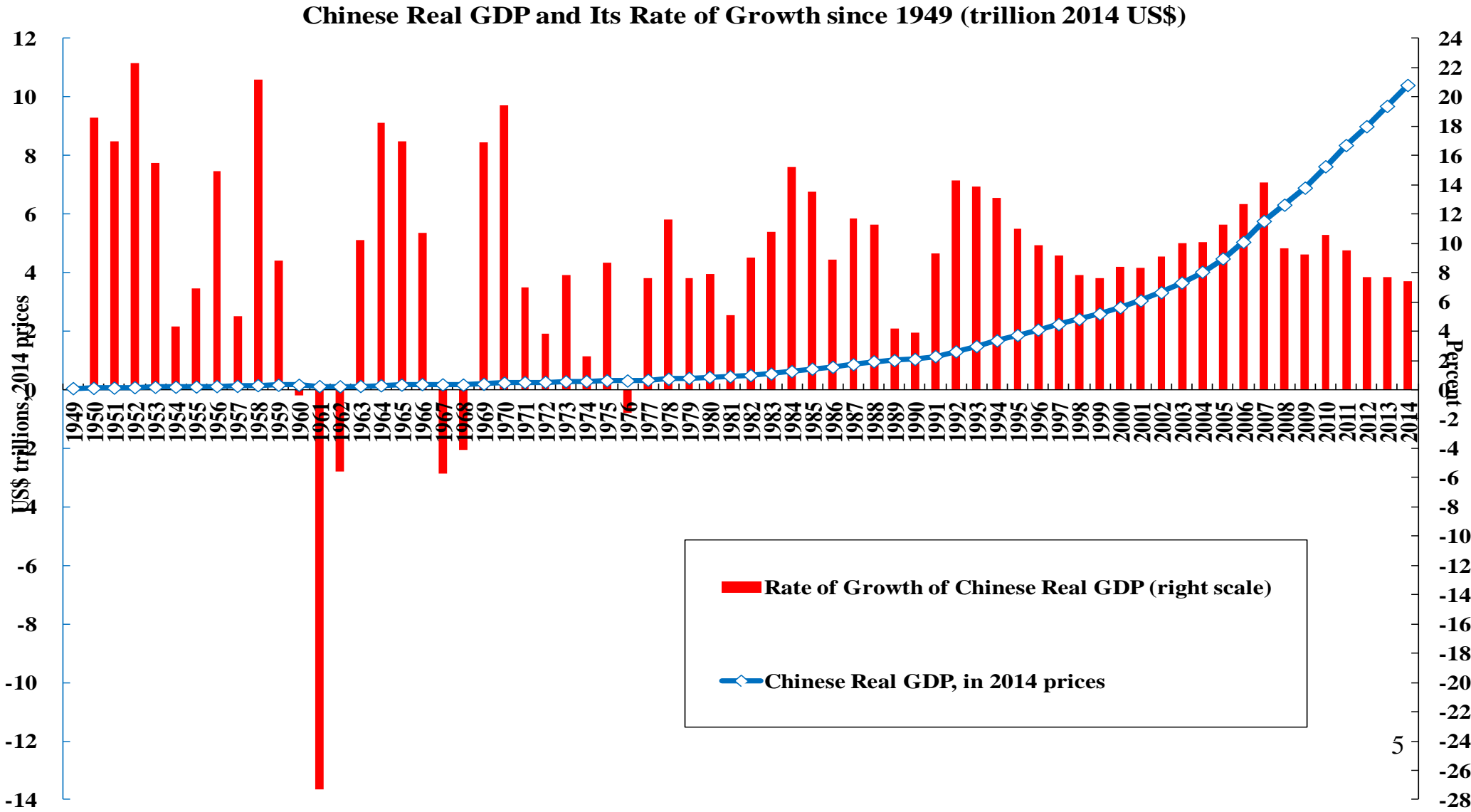
Outline

- ◆ Introduction
- ◆ The Chinese Economic Fundamentals
- ◆ The Inherent Economic Inefficiency of Central Planning
- ◆ The Transition from a Centrally Planned to a Market Economy
- ◆ Reform without Losers--The Chinese Strategy for Economic Reform
- ◆ The Monopsonistic Labour Market in China
- ◆ The Sources of Chinese Economic Growth
- ◆ The “Wild Geese Flying Pattern”--The Further Advantage of China’s Size
- ◆ China as a Surplus Economy
- ◆ The Importance of Expectations
- ◆ The On-Going Economic Challenges
- ◆ The Long-Term Economic Outlook
- ◆ Concluding Remarks

Introduction

- ◆ China has made tremendous progress in its economic development since it began its economic reform and opened to the World in 1978. It is currently the fastest growing economy in the World—averaging 9.7% per annum over the past 37 years. It is historically unprecedented for an economy to grow at such a high rate over such a long period of time. However, the Chinese economy has begun to slow down, to around 7% year-on-year growth, in a process of transition to a “New Normal”.
- ◆ Between 1978 and 2014, Chinese real GDP grew more than 28 times, from US\$369 billion to US\$10.4 trillion (in 2014 prices), to become the second largest economy in the World, after the U.S. By comparison, the U.S. GDP of approximately US\$17.4 trillion was a little less than 1.7 times Chinese GDP in 2014.

Chinese Real GDP (2014 US\$) and Its Rate of Growth since 1949



Introduction

- ◆ During this same period, China also had to face many domestic and international challenges and several financial crises, such as the East Asian currency crisis of 1997-1998, the bursting of the internet bubble in 2000, the global financial crisis of 2007-2009 as well as the European sovereign debt crisis. China was able to survive all of these crises relatively unscathed, even maintaining a healthy rate of real economic growth.
- ◆ The Chinese Government leaders have demonstrated their ability to confront these challenges and solve difficult problems.
- ◆ The Chinese economy has recently begun a process of transition to a “New Normal”, with a lower rate of growth and a cleaner environment, and more innovation-driven than input-driven.

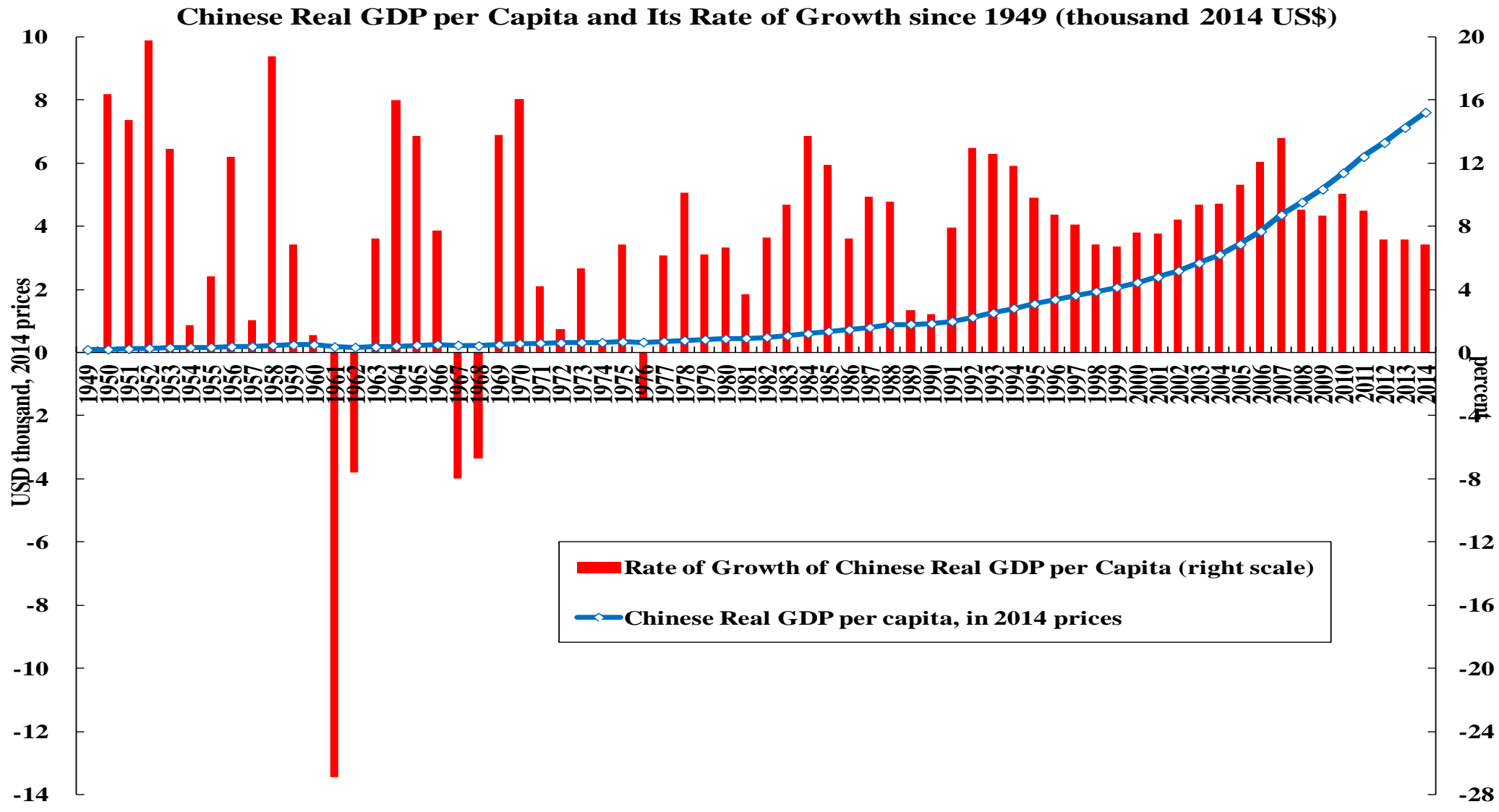
Key Performance Indicators Before and After Chinese Economic Reform of 1978

	Growth Rates	
	percent per annum	
	Pre-Reform Period	Post-Reform Period
	1952-1978	1978-2014
Real GDP	6.13	9.72
Real GDP per Capita	4.04	8.65
Real Consumption	5.02	9.19
Real Consumption per Capita	2.96	8.13
Exports	9.99	16.76
Imports	9.14	15.98
Inflation Rates (GDP deflator)	0.53	5.19

Introduction

- ◆ However, despite its rapid economic growth in the aggregate, in terms of its real GDP per capita, China is still very much a developing economy.
- ◆ In 1978, the U.S. real GDP per capita of US\$30,472 (in 2014 prices) was 79 times the then Chinese real GDP per capita of US\$383.
- ◆ Between 1978 and 2014, Chinese real GDP per capita grew 19.8 times, from US\$383 to US\$7,604 (in 2014 prices).
- ◆ By comparison, the U.S. GDP per capita of US\$54,575, in 2014 prices, was 7.2 times Chinese GDP per capita in 2014.

Chinese Real GDP per Capita and Its Rate of Growth (2014 Prices) since 1949

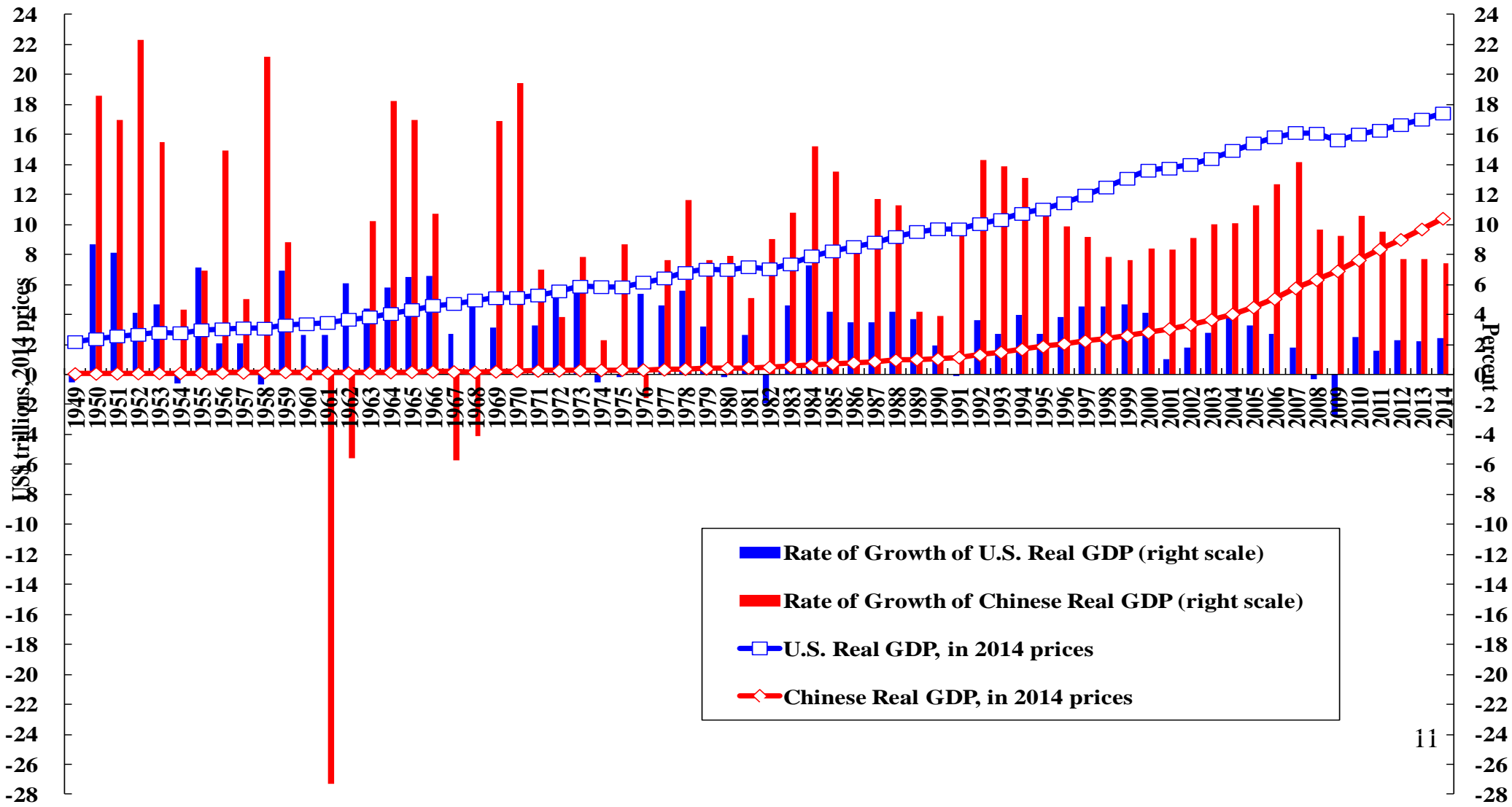


Introduction

- ◆ While many problems have arisen in the Chinese economy within the past decade—for example, increasing income disparity--both inter-regional and intra-regional--uneven access to basic education and health care, environmental degradation, inadequate infrastructure and corruption—it is fair to say that every Chinese citizen has benefitted from the economic reform and opening since 1978, albeit to varying degrees, and few want to return to the central planning days.

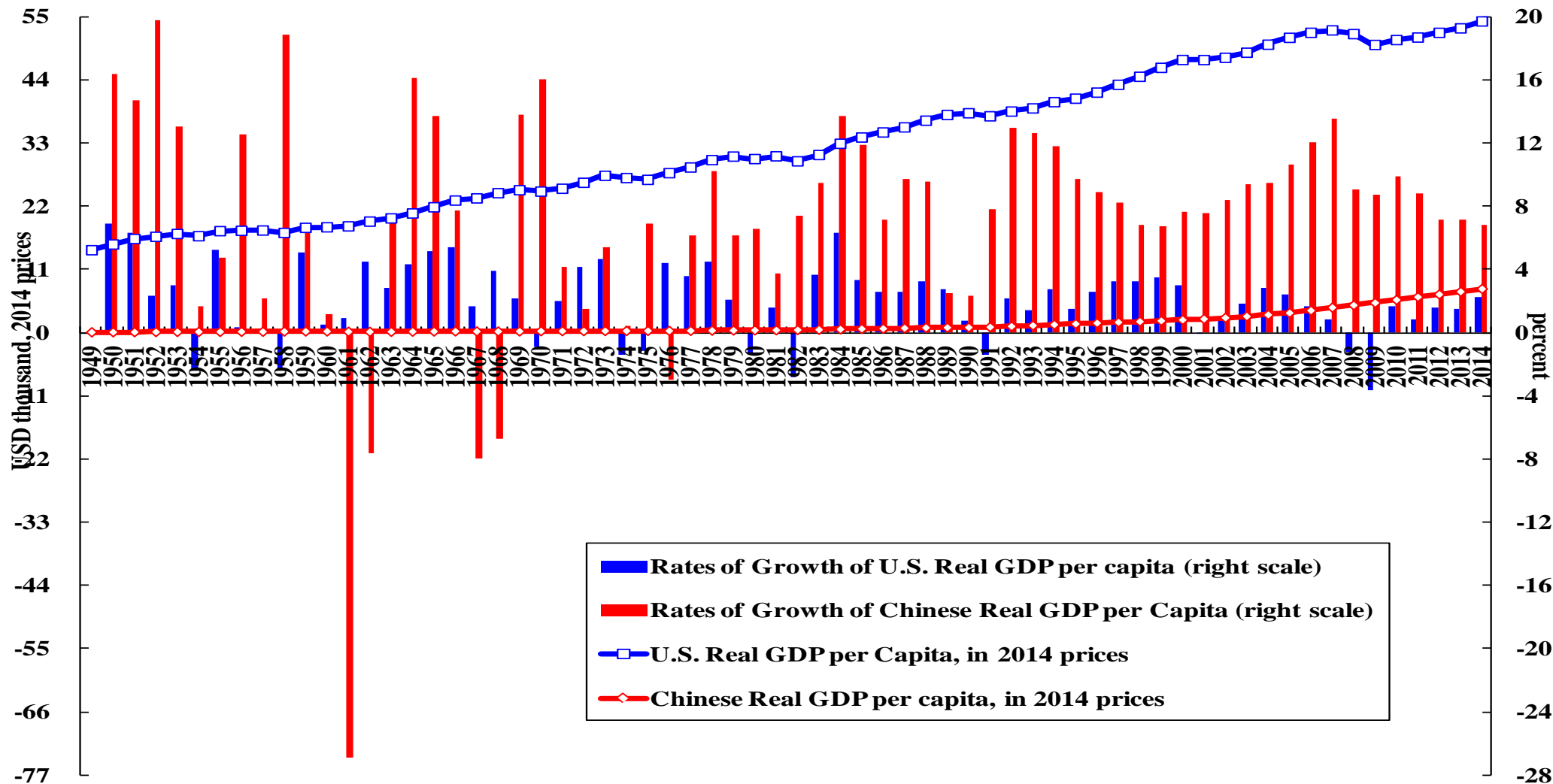
Chinese and U.S. Real GDPs and Their Rates of Growth (2014 US\$) since 1949

Chinese and U.S. Real GDPs and Their Rates of Growth since 1949 (trillion 2014 US\$)



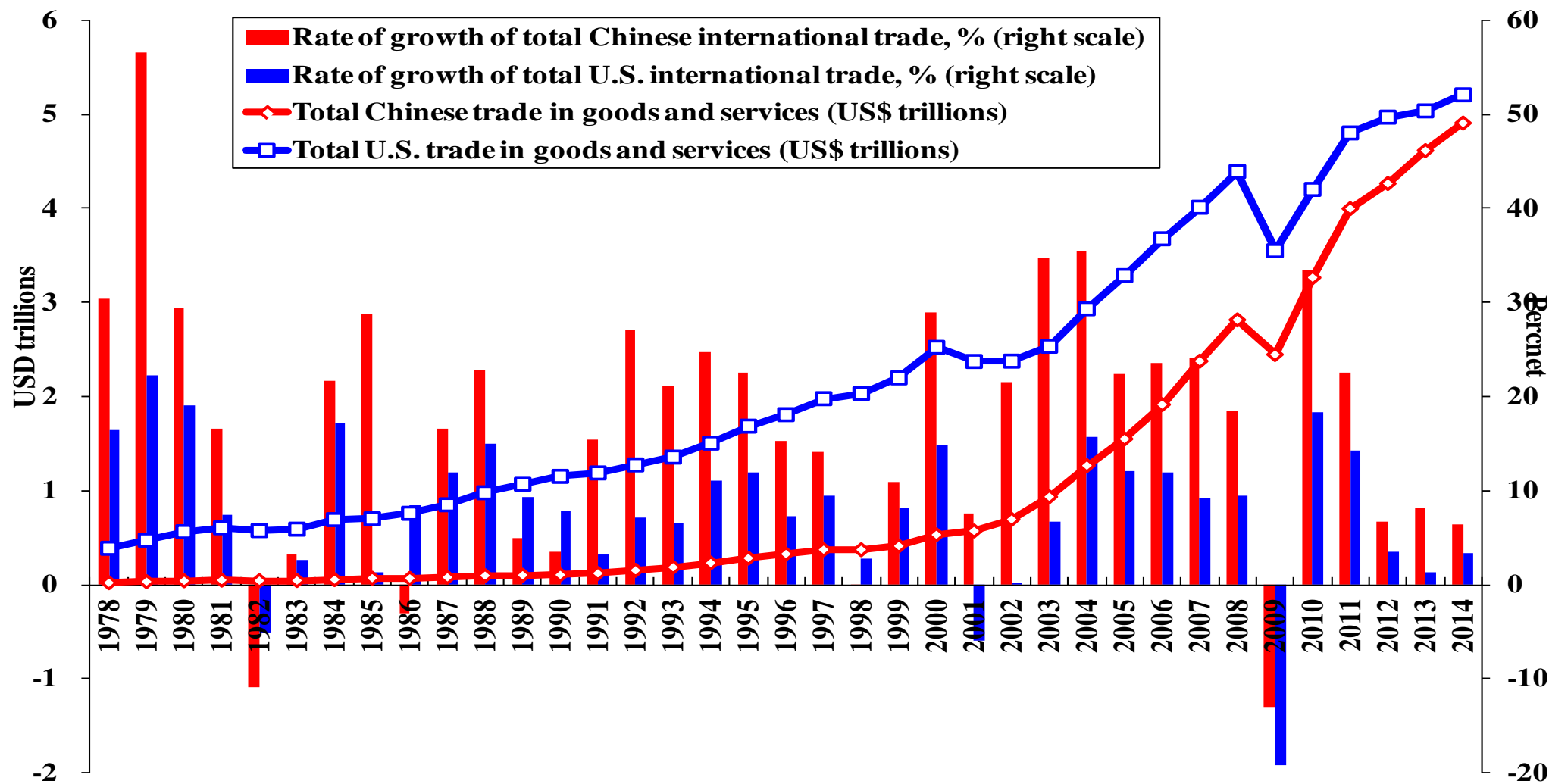
Chinese and U.S. Real GDP per Capita and Their Rates of Growth (2014 US\$) since 1949

Chinese and U.S. Real GDP per Capita and Their Rates of Growth since 1949
(thousand, 2014 US\$)



International Trade & Its Rate of Growth: A Comparison of China and the U.S. since 1978

The Value of International Trade and Its Rate of Growth:
A Comparison of China and the U.S.



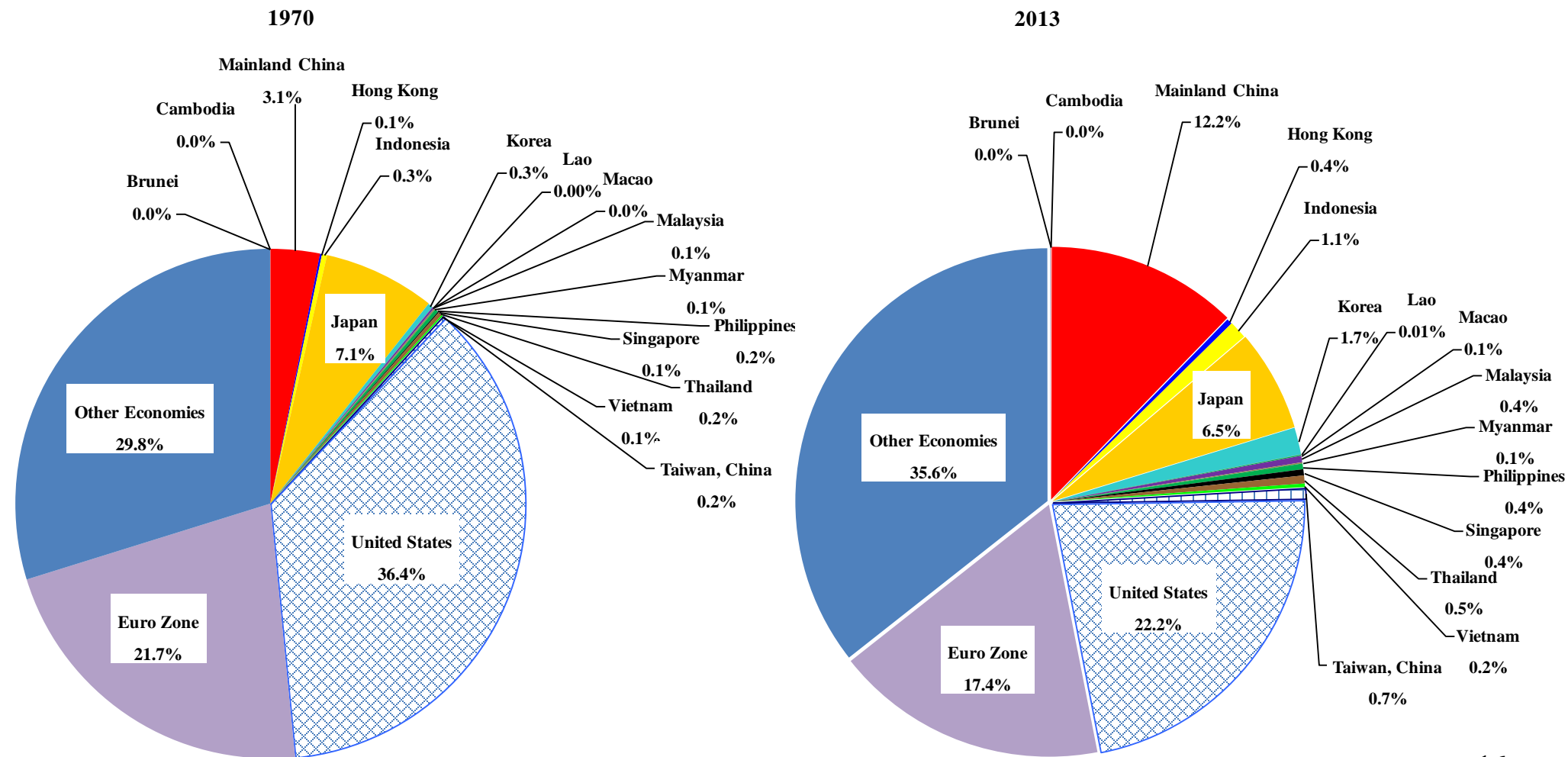
China in the Global Economy

- ◆ 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 approximately 10% of World GDP.
- ◆ Hong Kong, Republic of Korea, Singapore and Taiwan are also known collectively as the East Asian “Newly Industrialised Economies (NIEs)”.

China in the Global Economy

- ◆ By 2013, the share of United States and Western Europe in World GDP has declined to approximately 40% whereas the share of East Asia has risen to around 25%.
- ◆ The Japanese share of World GDP declined from a peak of almost 18% in the mid-1990s to 6.5% in 2013 while the Mainland Chinese share of World GDP rose from 3.1% in 1970 and less than 4% in 2000 to over 12.2% in 2013.

The Distribution of World GDP, 1970 and 2013, US\$



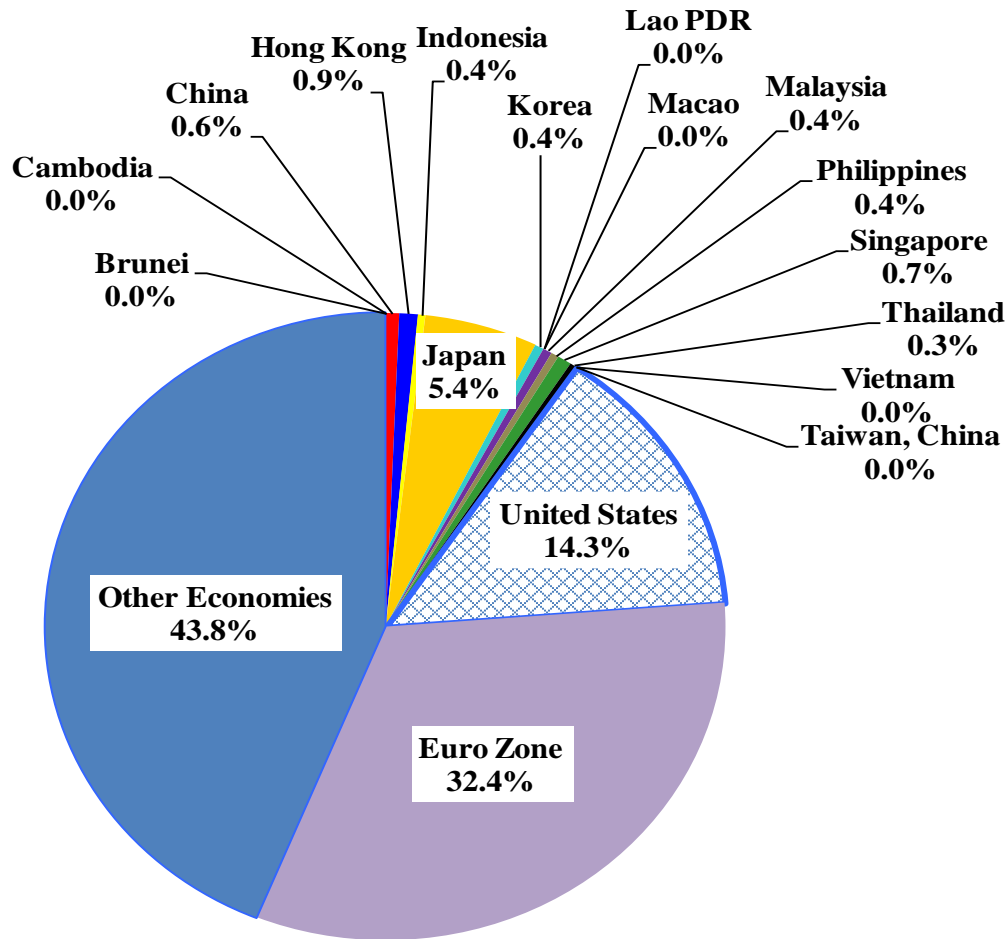
China in the Global Economy:

International Trade

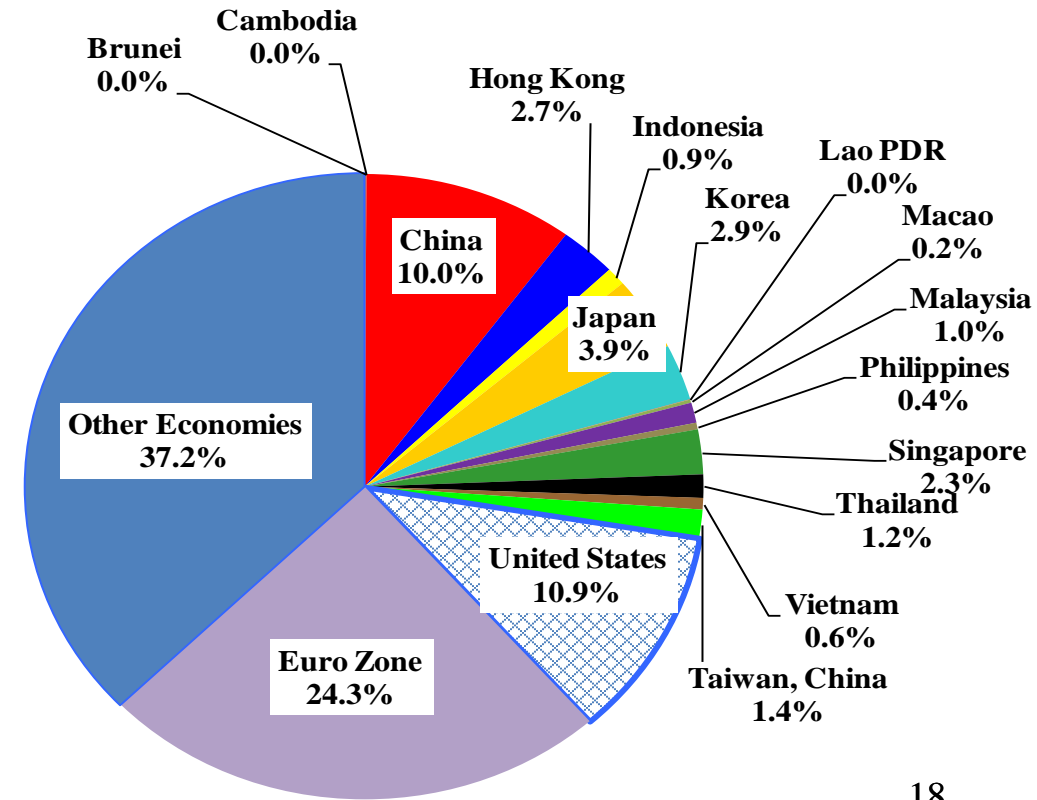
- ◆ In 1970, the United States and Western Europe together accounted for almost 60% of World trade in goods and services. By comparison, East Asia accounted for 9.5% of World trade.
- ◆ By 2013, the share of United States and Western Europe in World trade has declined to 41.4% whereas the share of East Asia has risen to almost 27.6%.
- ◆ The Chinese share of World trade rose from 0.63% in 1970 to 10.0% in 2013. The growth in Chinese international trade may be attributed in part to the reform of the Chinese exchange rate system in the early 1990s, accompanied by a significant devaluation, and to Chinese accession to the World Trade Organisation in the 2001.

The Distribution of Total International Trade in Goods and Services, 1970 and 2013

1970

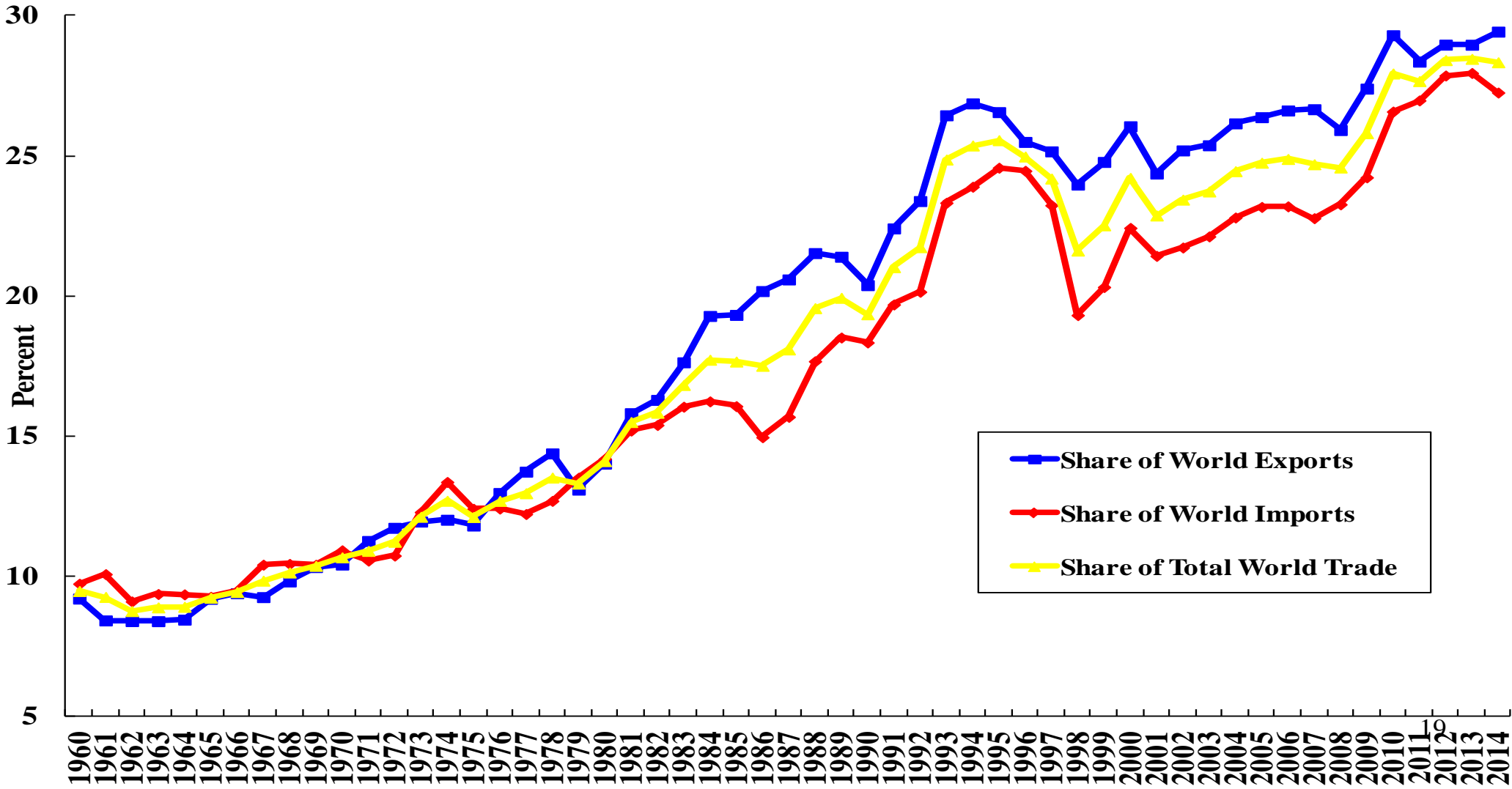


2013



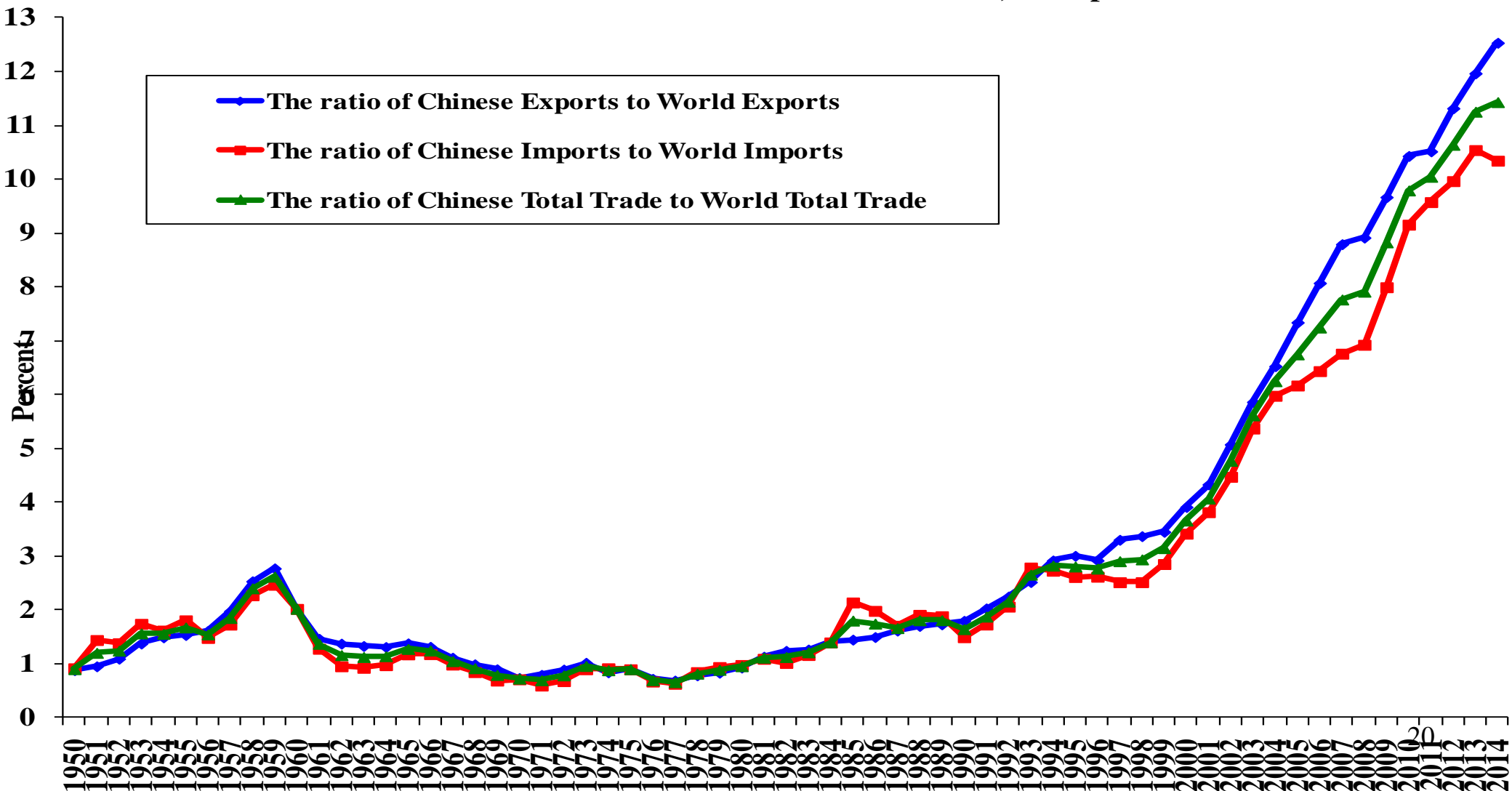
The Rising Share of East Asian Trade in Total World Trade, 1960-present

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



The Chinese Share of Total World Trade, 1950-present

The Share of Chinese Trade in Total World Trade, 1950-present

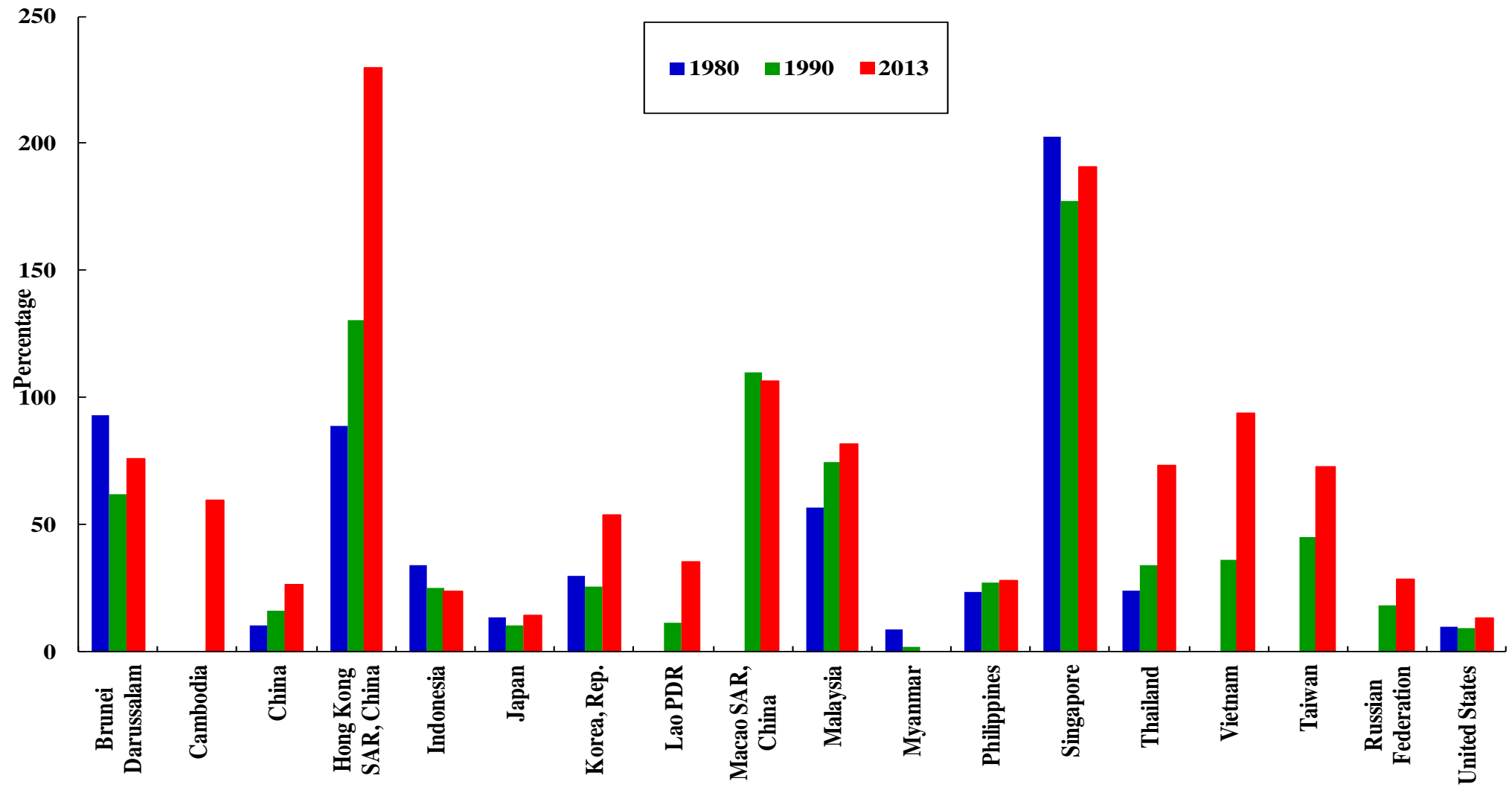


The Ranks of China as Trading Partner of Asia-Pacific Countries/Regions and Vice Versa, 2013

Country/Region	Chinese Rank as Trading Partner of Country/Region	Rank of Country/Region as Trading Partner of China
Australia	1	7
Brunei	3	104
Cambodia	1	78
Hong Kong	1	2
Indonesia	1	16
Japan	1	3
Korea	1	4
Laos	2	90
Macau	1	85
Malaysia	1	8
Myanmar	1	51
New Zealand	1	43
Philippines	2	27
Singapore	1	11
Taiwan	1	5
Thailand	1	13
United States	2	1
Vietnam	1	18

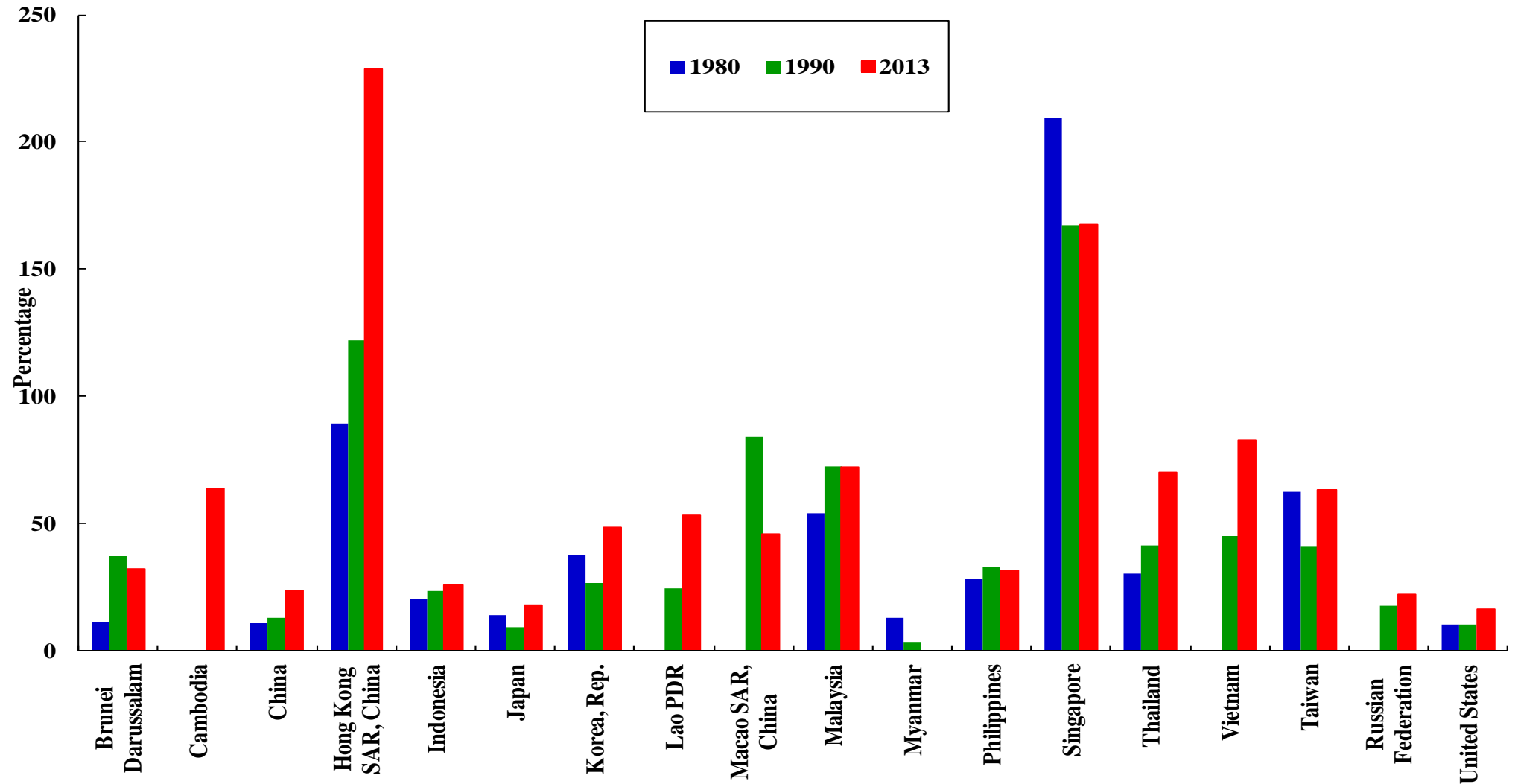
Exports of Goods and Services as a Percent of GDP: Selected Economies

Exports as a share of GDP of East Asian Economies



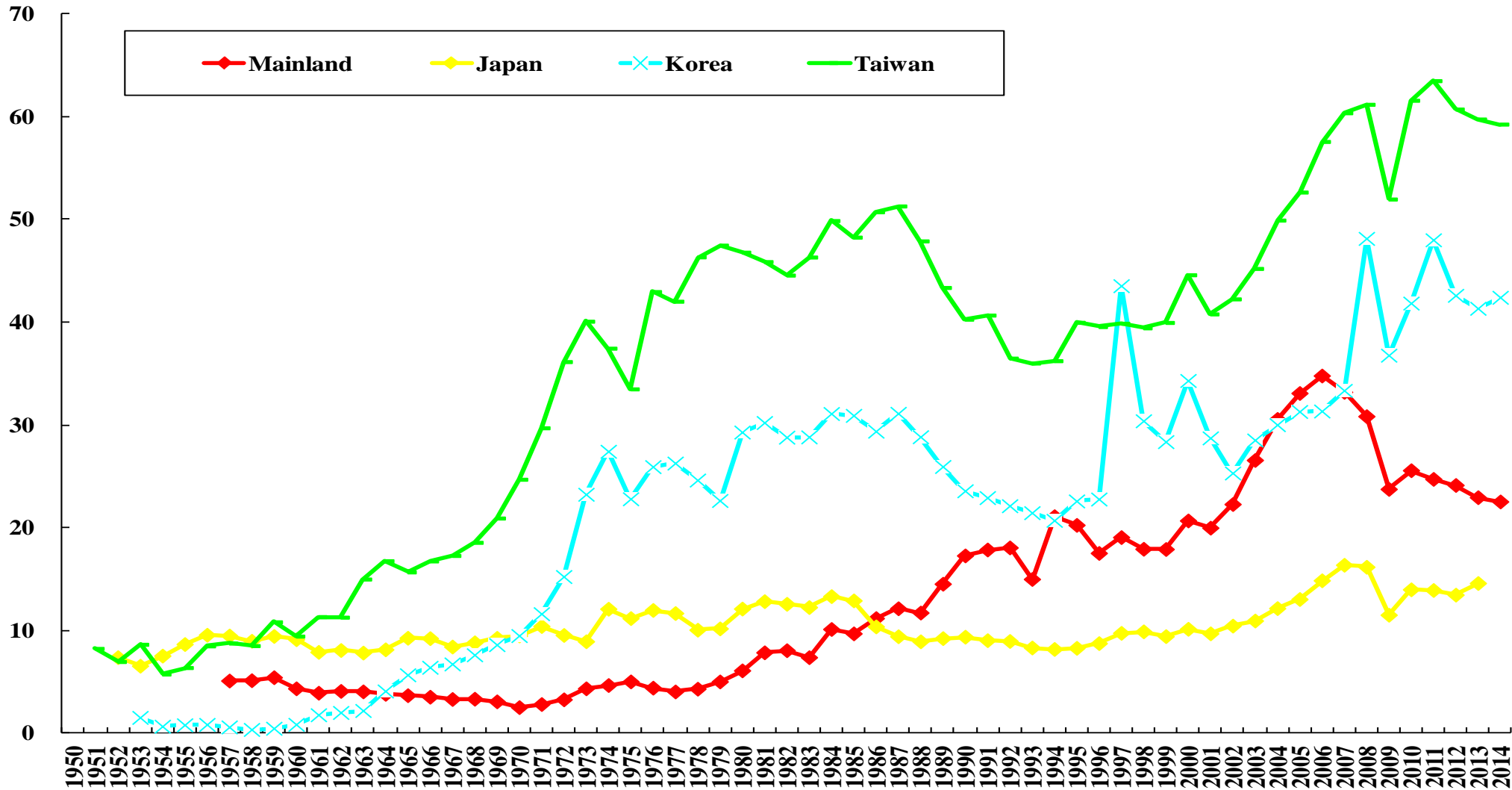
Imports of Goods and Services as a Percent of GDP: Selected Economies

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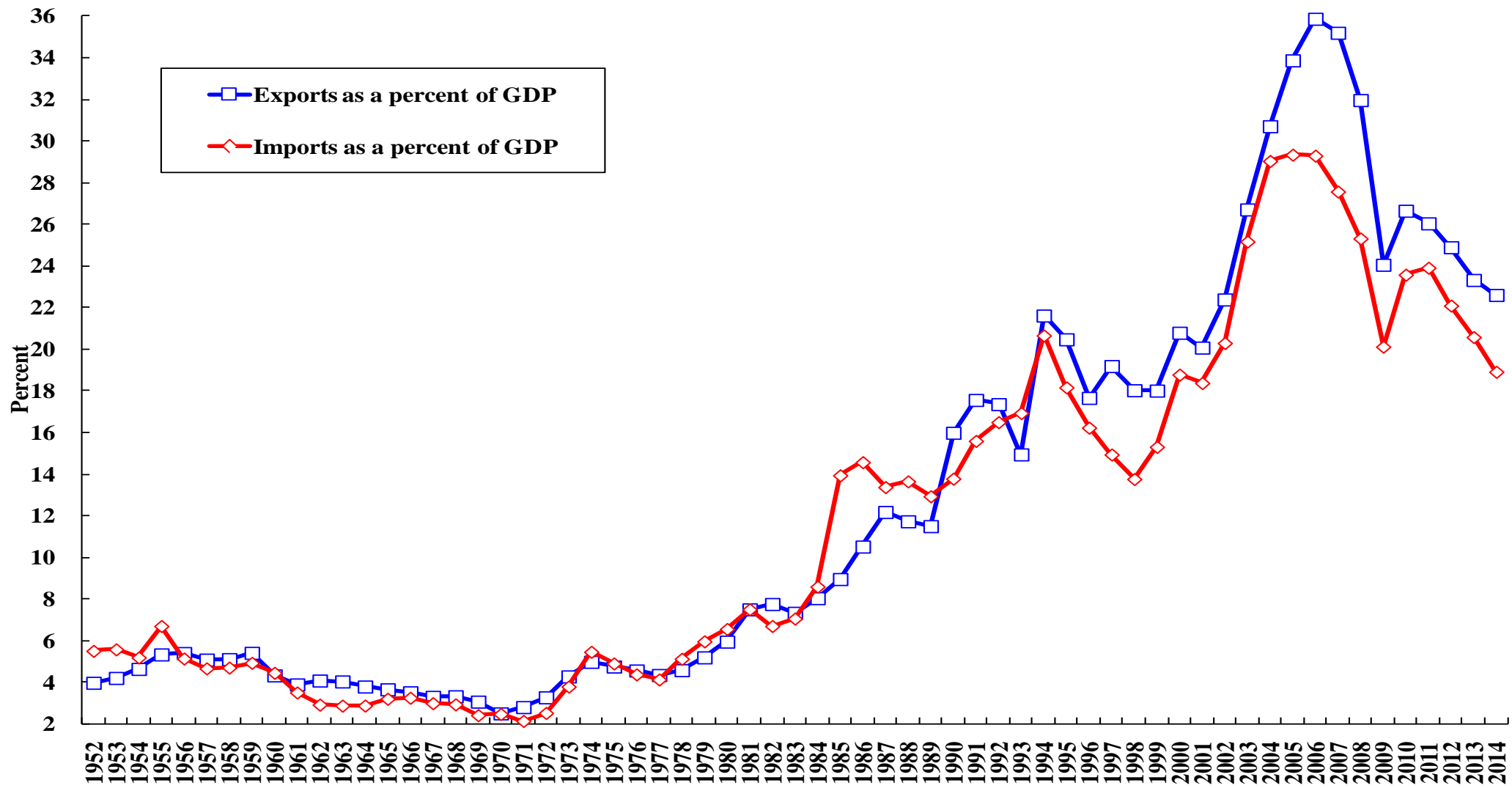
Exports of Goods as a Percentage of GDP: Mainland China, Japan, Korea & Taiwan

Exports of Goods as a Percentage of GDP: Mainland China, Japan, Korea & Taiwan



Exports and Imports as a Percent of Chinese GDP, 1952-present

Exports and Imports as a Percent of Chinese GDP, 1952-present



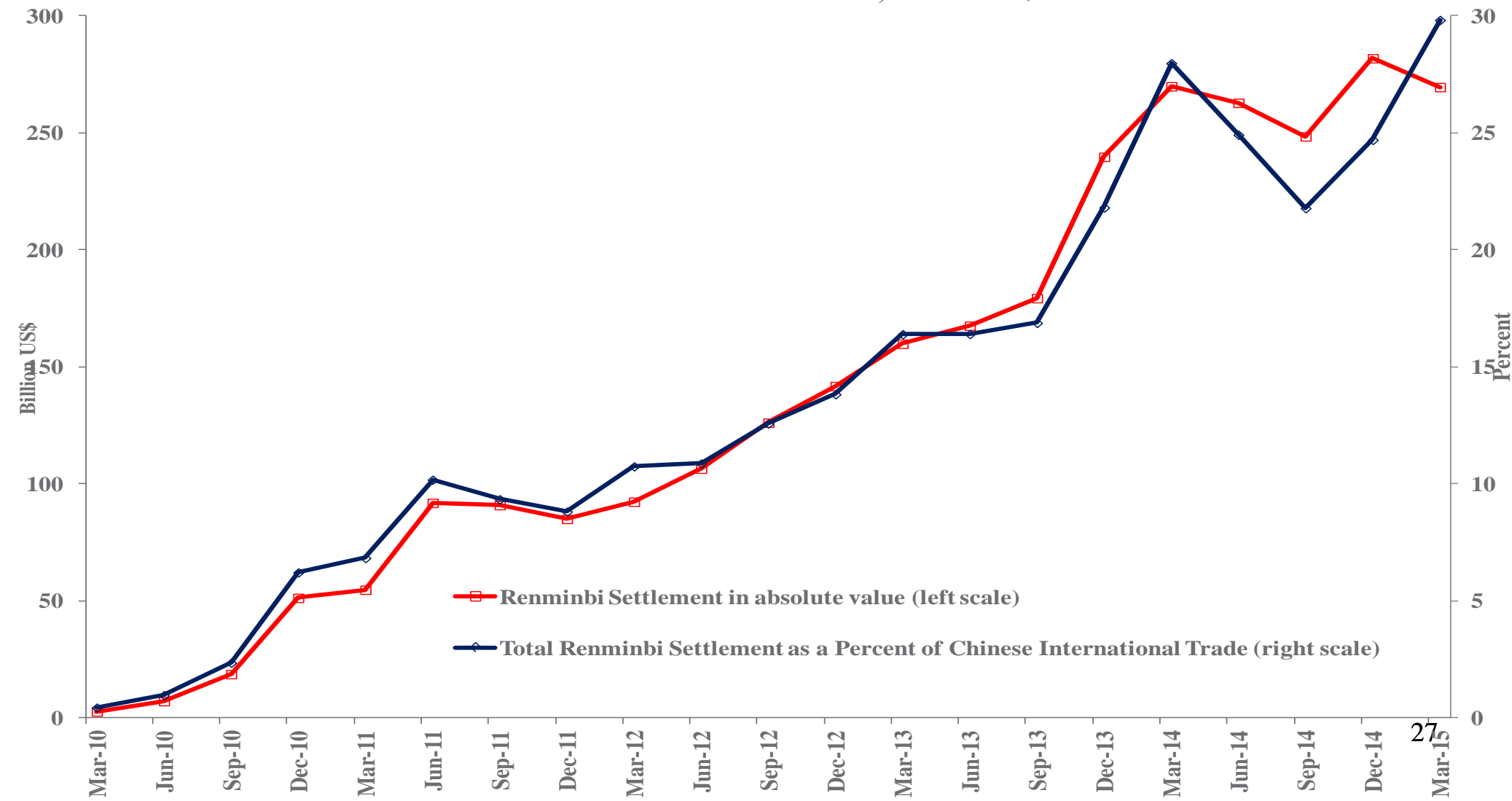
China in the Global Economy:

The Growing Use of the Renminbi

- ◆ The Renminbi, the Chinese currency, is increasingly used as an invoicing and settlement currency for cross-border transactions, especially those involving Chinese enterprises as transacting parties.
- ◆ The proportion of Mainland Chinese international trade settled in Renminbi has grown rapidly, from almost nothing in 2010Q1 to 30% of the total value of Chinese international trade in goods in 2015Q1 (US\$270 billion). In absolute value, more than a US\$1 trillion worth of Chinese international trade is now settled in Renminbi annually.

Renminbi Settlement of Chinese Cross-Border Trade, Billion US\$ and Percent

Renminbi Settlement of Cross-Border Trade, Billion US\$ and Percent



China in the Global Economy: The Growing Use of the Renminbi

- ◆ In the following charts, the share of each major country in world trade is compared to the share of its currency used in world trade settlement in 2010 and in April 2015.
- ◆ The Renminbi rose from outside the top twenty currencies used for world trade settlement in 2010 to the fifth most widely used currency in 2015, behind the U.S. Dollar, the Euro, the British Pound and the Japanese Yen.
- ◆ Even though China accounted for more than 12% of world trade, Renminbi accounted for only 2.1% of world trade settlement in April 2015; while the U.S. had a similar share of world trade as China, the U. S. Dollar accounted for 45.1% of world trade settlement in April 2015.

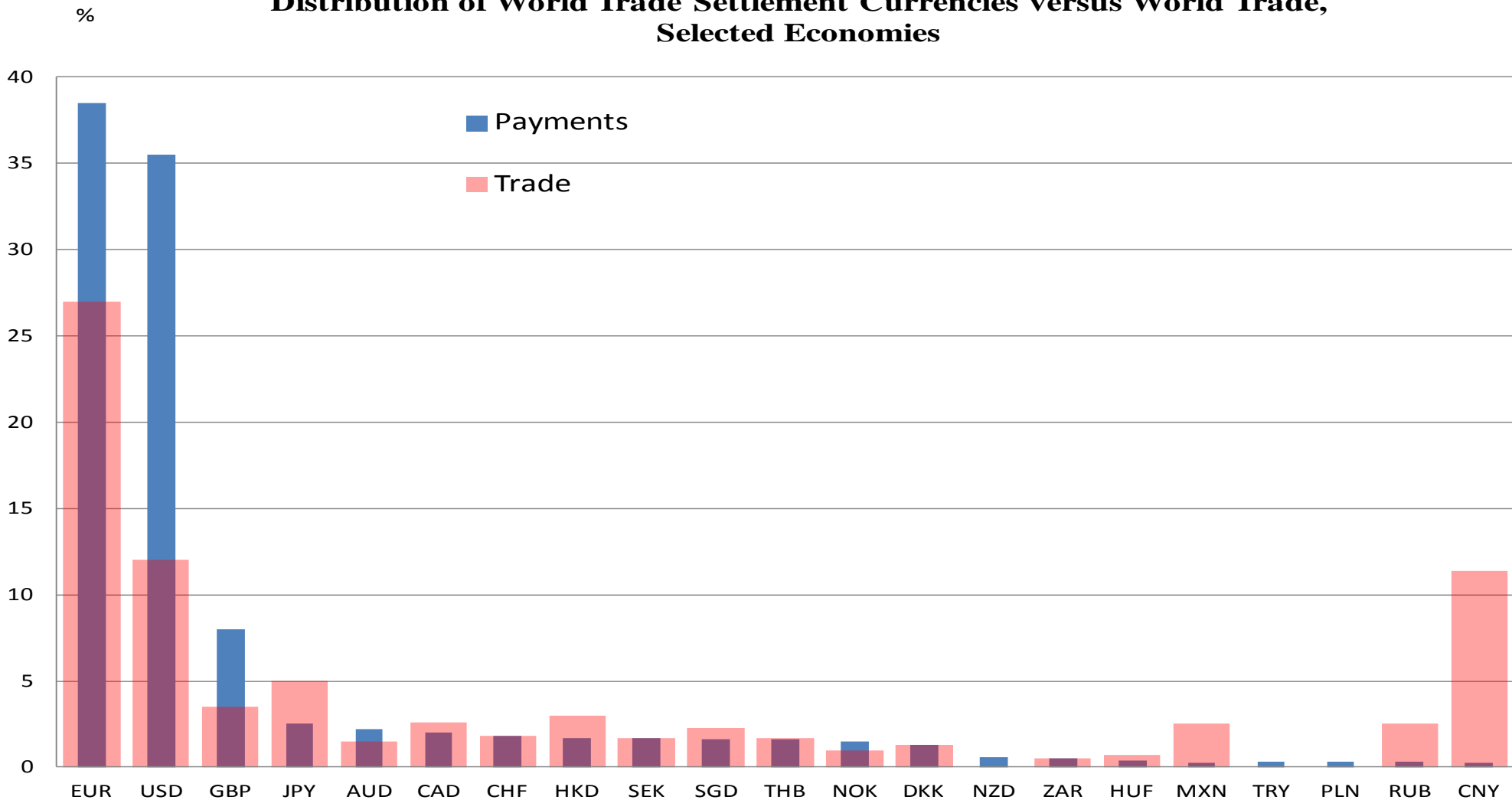
China in the Global Economy:

The Growing Use of the Renminbi

- ◆ By comparison, Japan accounted for 5.1% of world trade and its currency, the Yen, accounted for 2.7% of world trade settlement in April 2015.
- ◆ While the use of Renminbi for world trade settlement has increased significantly in just a few years, there is still plenty of room for the expansion of the use of Renminbi for cross-border trade settlement in the future.
- ◆ If the Japanese experience is any guide, the use of the Renminbi for world trade settlement should triple over the next few years.

Distribution of World Trade Settlement Currencies versus World Trade, 2010

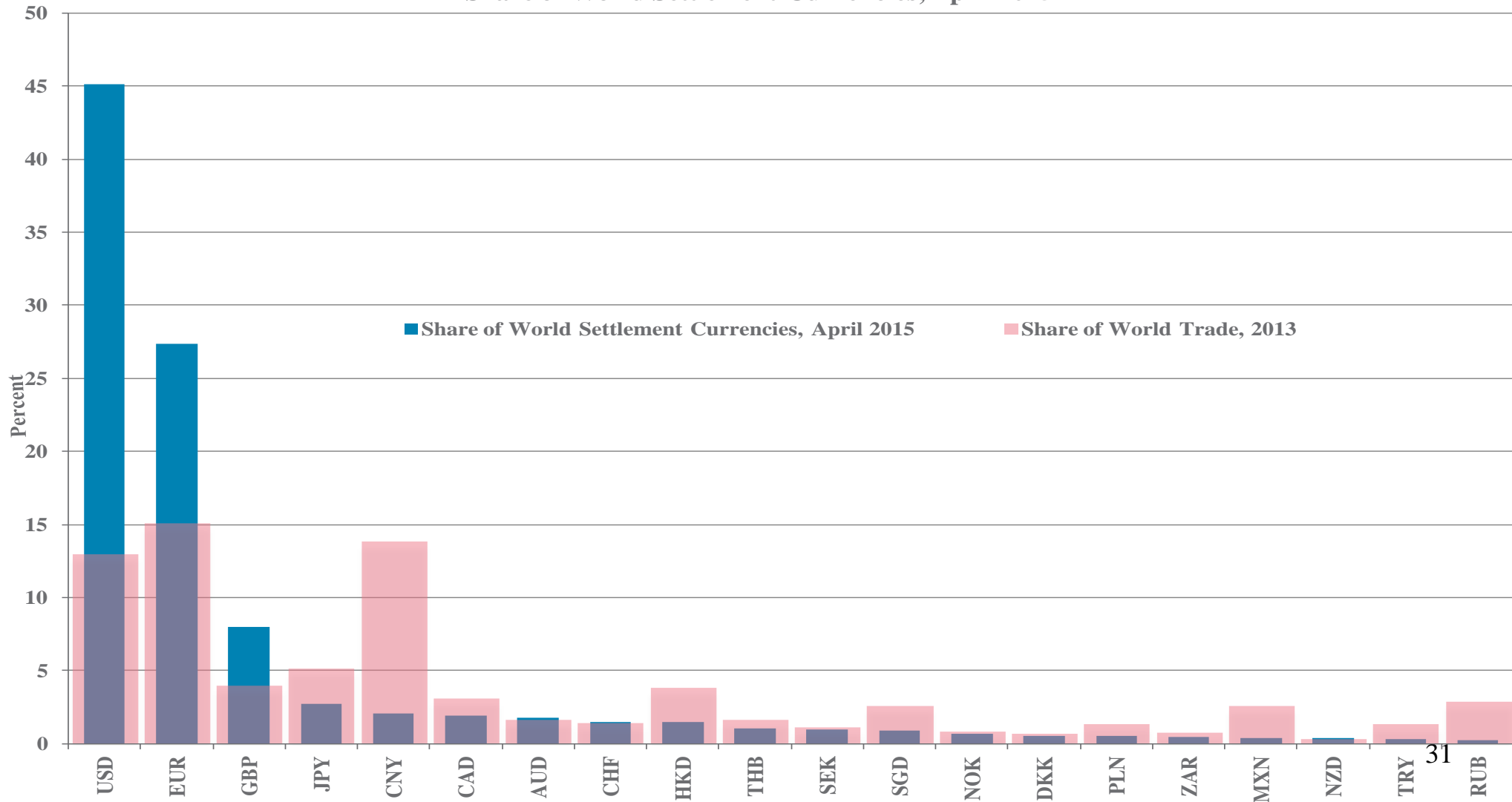
Distribution of World Trade Settlement Currencies versus World Trade, Selected Economies



Source: SWIFT Value Analyser. Trade (import/export) 2010, in value., WTO working paper, Daiwa

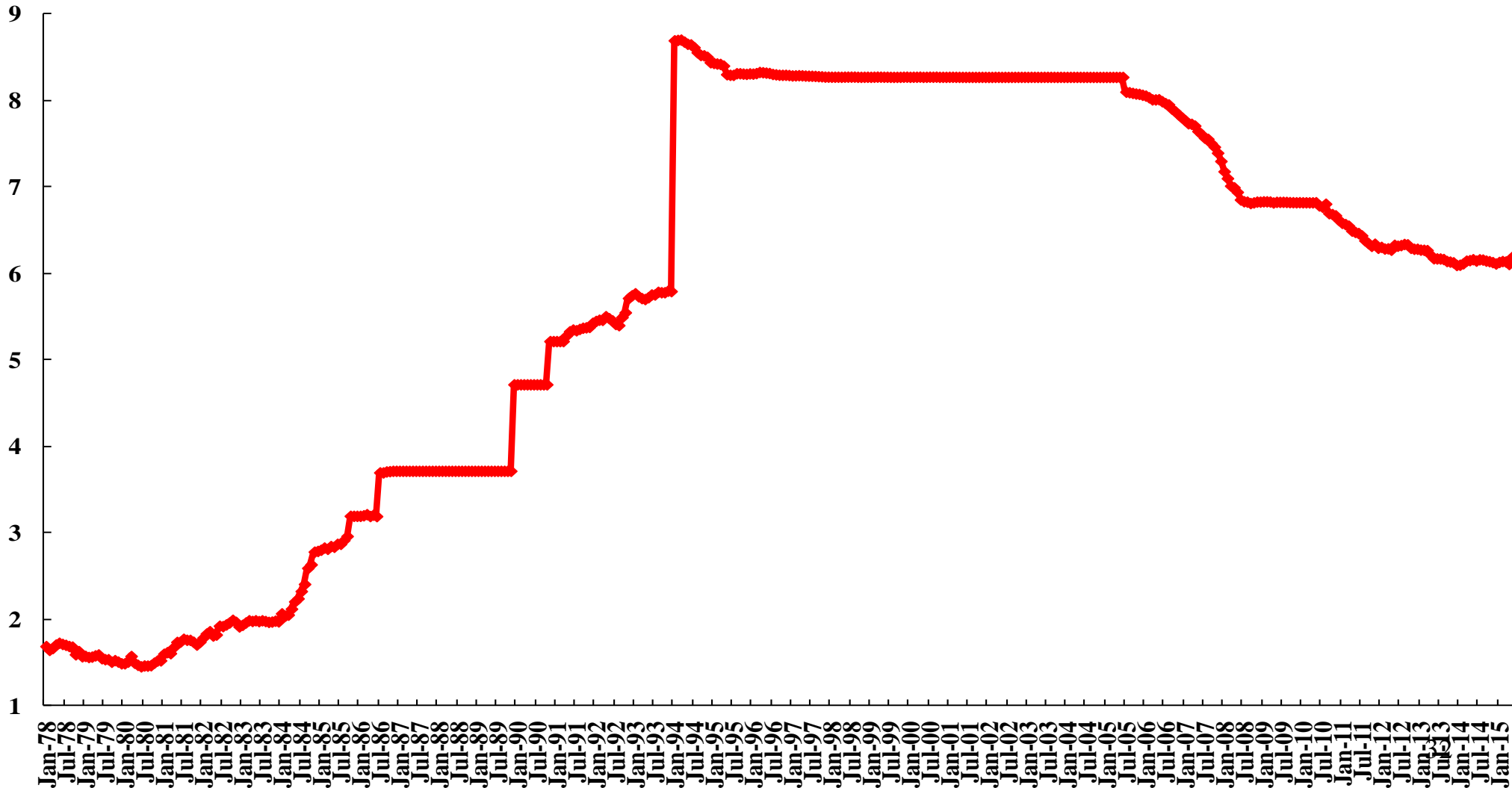
Distribution of World Trade Settlement Currencies versus World Trade, April 2015

Share of World Settlement Currencies, April 2015



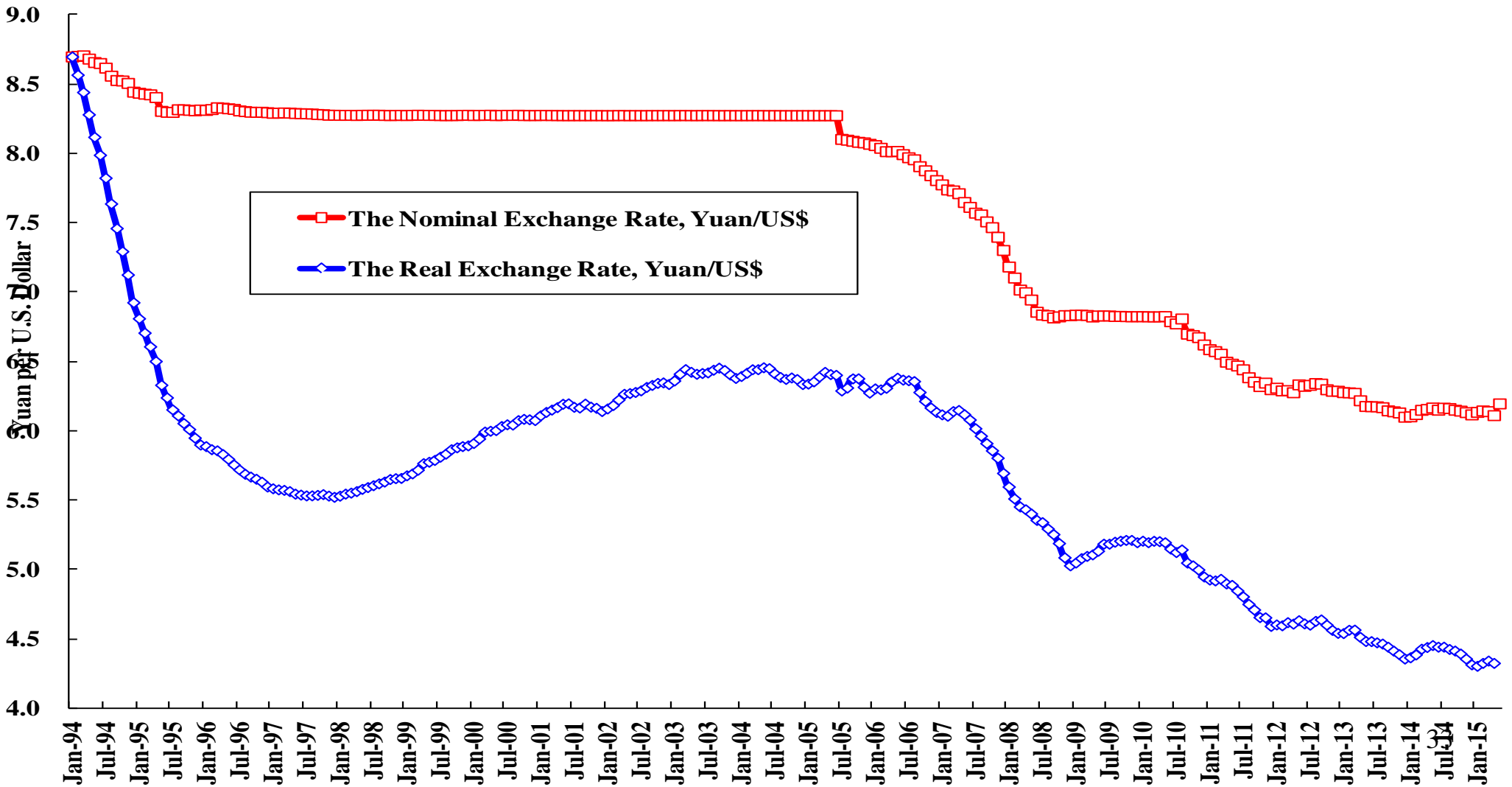
Nominal Exchange Rate of the Renminbi, Yuan/US\$, 1978-present

Nominal Exchange Rate of the Renminbi, Yuan/US\$, 1978-present



The Nominal and Real Yuan/US\$ Exchange Rates

The Nominal and Real Yuan/US\$ Exchange Rates (1994 prices)

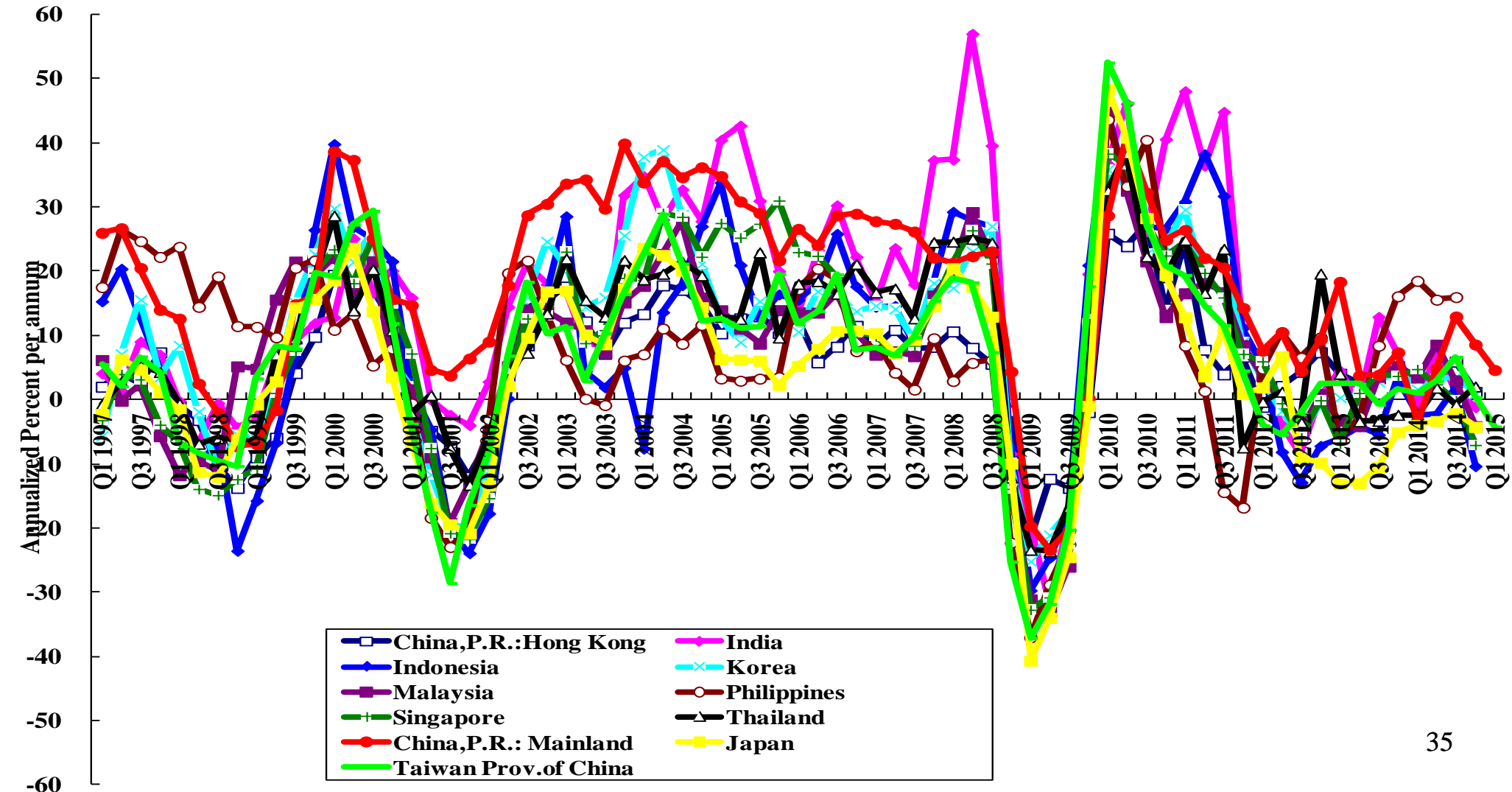


China in the Global Economy: The Partial De-Coupling Hypothesis

- ◆ Why was the Chinese economy able to survive successive financial crises, beginning with the 1997-1998 East Asian currency crisis, as well as quantitative easings on the part of the U.S. Federal Reserve Board (QE1, II and III), the Bank of Japan and the European Central Bank (ECB) relatively unscathed?
- ◆ China has been relatively insulated from the financial disturbances in the World economy because it had controls on both inflows and outflows of capital and moreover did not have to depend on foreign capital because of its own high domestic saving rates. Potential contagion is therefore minimised. (It was even spared the Bernard Madoff swindle which had actually caught quite a few wealthy European investors.)

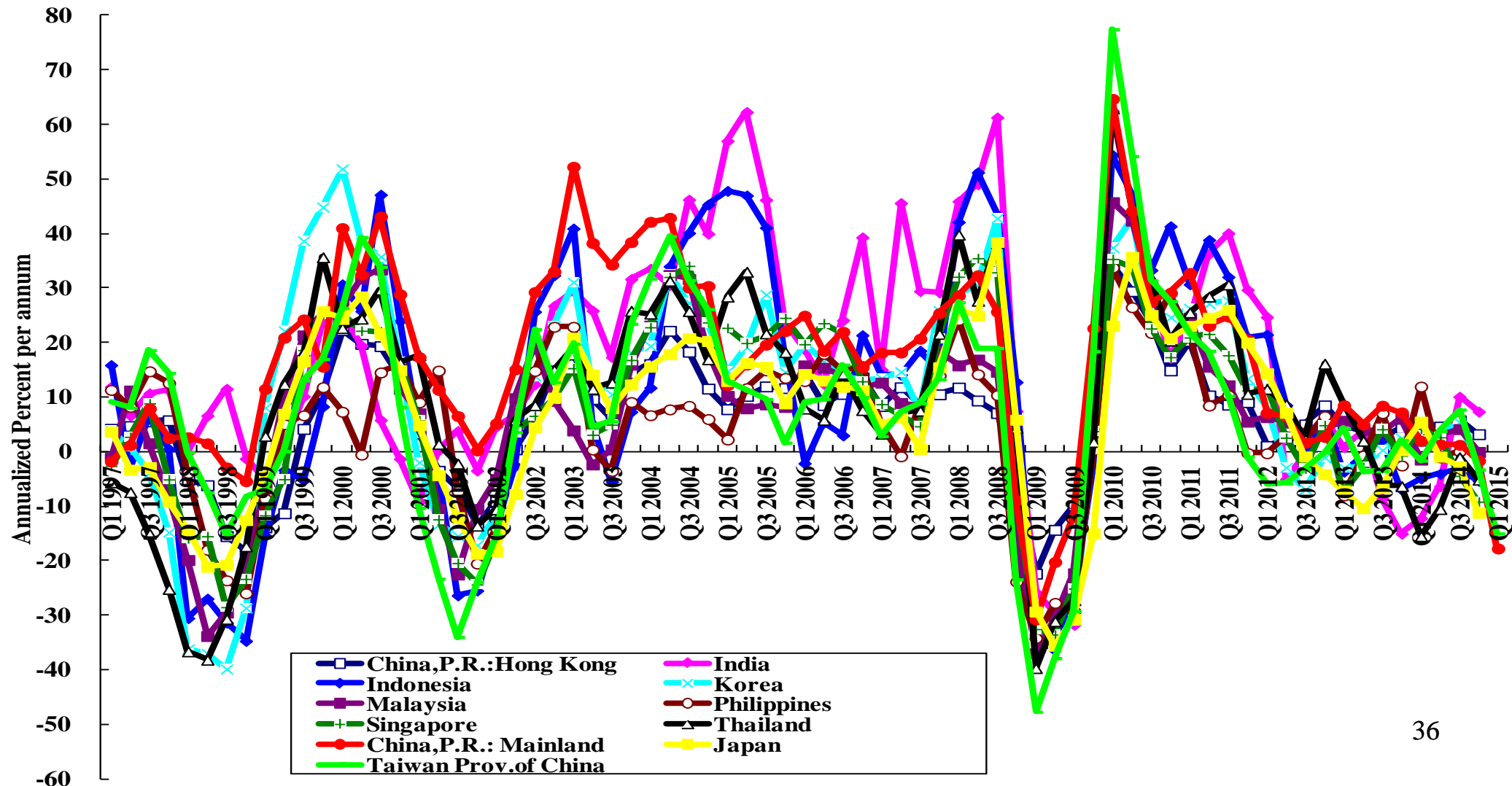
Quarterly Rates of Growth of Exports of Goods: Selected Asian Economies

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



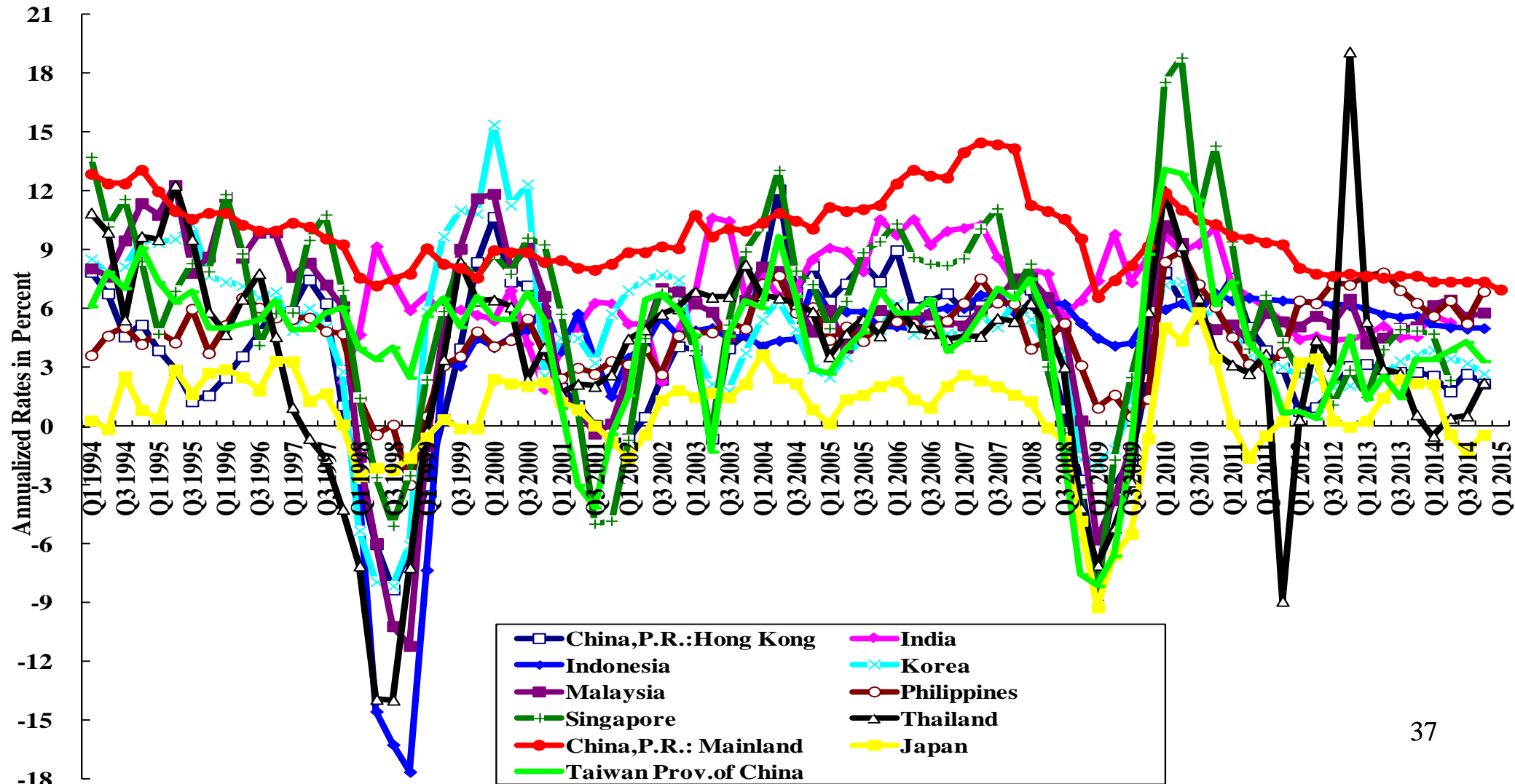
Quarterly Rates of Growth of Imports of Goods: Selected Asian Economies

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



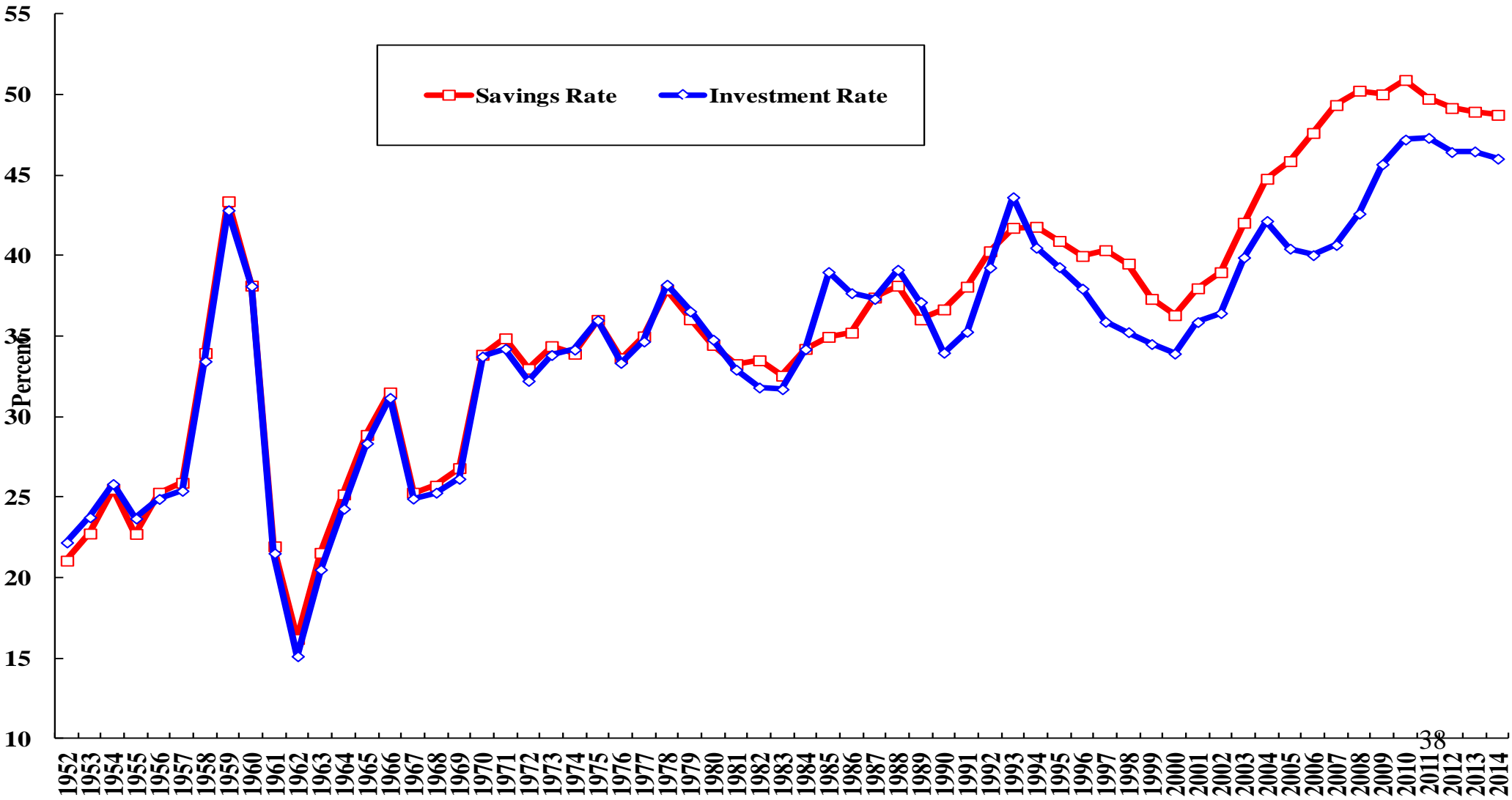
Quarterly Rates of Growth of Real GDP, Y-o-Y: Selected Asian Economies

Quarterly Rates of Growth of Real GDP, Year-over-Year: Selected East Asian Economies



Chinese National Saving and Gross Domestic Investment as Percents of GDP

Chinese National Savings and Gross Domestic Investment as a Percent of GDP since 1952



The Chinese Economic Fundamentals:

Capital

- ◆ The high Chinese saving rate means, among other things, that the Chinese economy can finance all of its domestic investment needs from its own domestic savings alone, without having to depend on the more fickle foreign capital inflows (including foreign direct investment, foreign portfolio investment, foreign aid, or foreign loans). In particular, it does not need to borrow abroad and bear the potential risks of a large, short-term and often interruptible, foreign-currency denominated debt.
- ◆ Thus, the Chinese economy is assured of a high rate of growth of the tangible capital stock.
- ◆ The Chinese economy is therefore also more immune from external disturbances than other economies.

The Chinese Economic Fundamentals:

Capital

- ◆ In addition, since new resources can be made available each year from new savings, enabling new investments to be made, the necessity of restructuring, redeploying or privatising existing fixed assets is greatly diminished. Thus, the potentially politically divisive issues such as factory closings and lay-offs and the creation of “losers” can be avoided). There was, for example, little privatisation of state-owned enterprises in Taiwan and South Korea during their initial periods of industrialisation.
- ◆ A high national savings rate also allows the normally more efficient non-state sector greater room and greater scope for development and expansion (there is less “crowding out”).

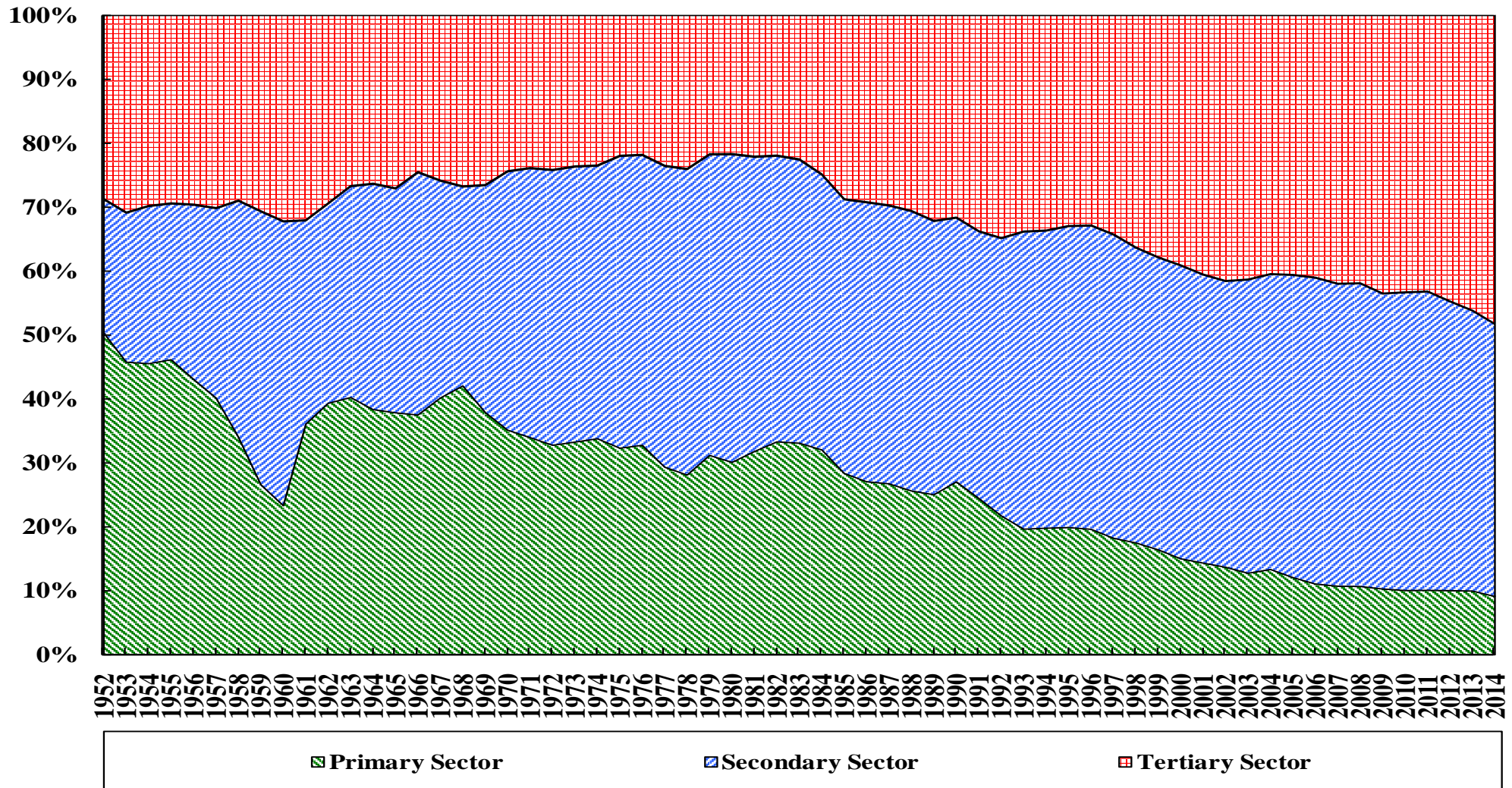
The Chinese Economic Fundamentals:

Labour

- ◆ The distribution of Chinese GDP by production-originating sectors in 2014 was approximately: Primary (agriculture), 9.2%; Secondary (manufacturing, mining and construction), 42.6%; and Tertiary (services), 48.2%. (Note that mining is normally included in the primary sector in most other economies.)

The Distribution of Chinese GDP by Originating Sector since 1952

The Distribution of GDP by Sector



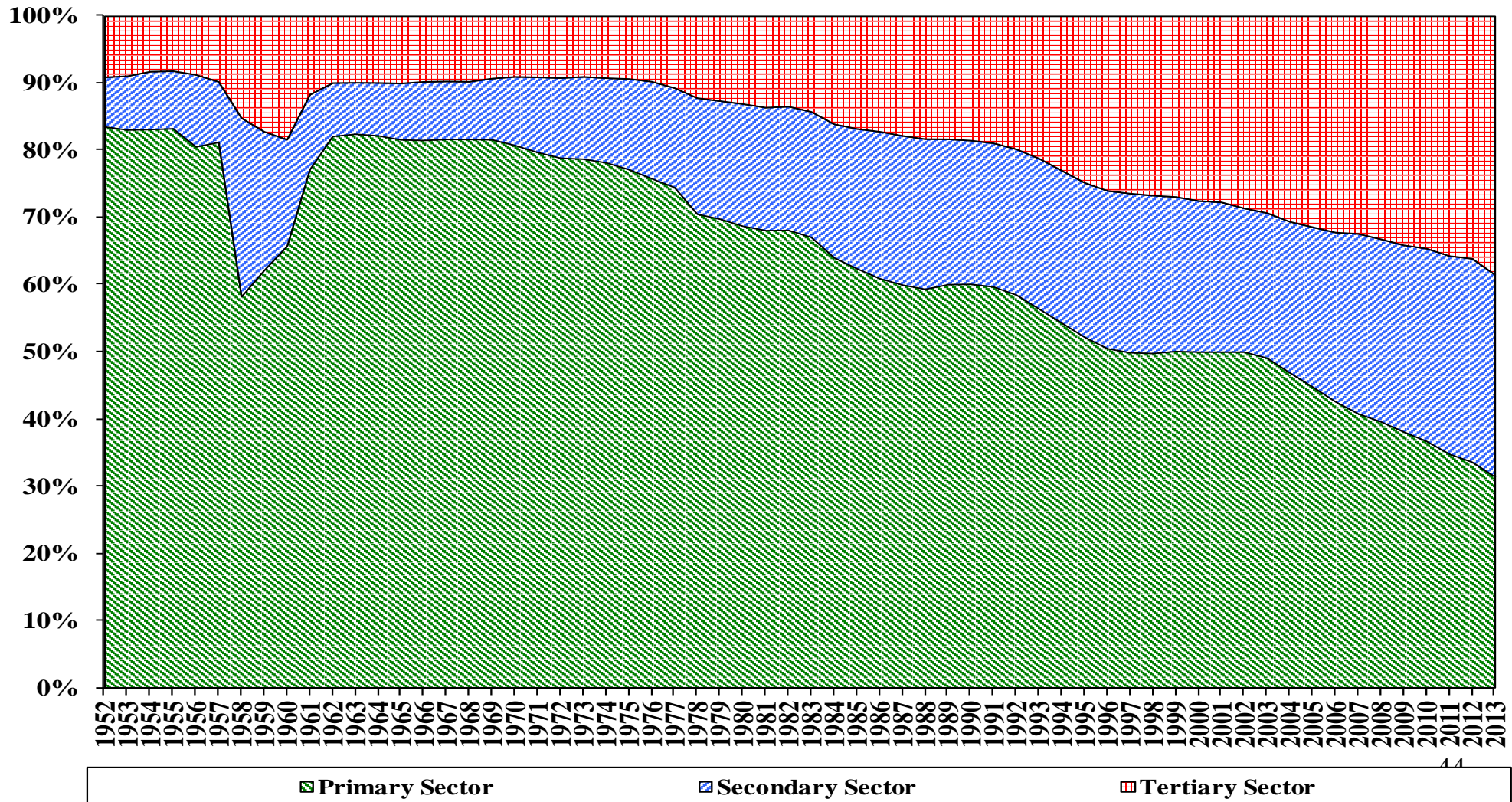
The Chinese Economic Fundamentals:

Labour

- ◆ In 2013, The distribution of employment by sector was: Primary 31.4%, Secondary 30.1%, and Tertiary 38.5%.
- ◆ The agricultural sector employs 31.4% of the Chinese labour force but produces only 10% of the Chinese GDP in 2013. Thus labour can be productively transferred to the other two sectors where labour productivities and wage rates are higher as long as complementary capital and demand are available.
- ◆ Hence, as long as the percentage of labour force employed in the primary sector significantly exceeds the percentage of GDP originating from the primary sector, there will be little or no upward pressure on the real wage rate of unskilled, entry-level labour in the secondary and tertiary sectors. Surplus labour will continue to exist in the Chinese economy.

The Distribution of Chinese Employment by Sector since 1952

The Distribution of Employment by Sector since 1952



The Chinese Economic Fundamentals:

Intangible Capital

- ◆ On intangible capital, China has a long tradition of emphasis on education and learning (human capital) and will be continuing to increase its investment in human capital. The enrollment rate of tertiary education has been rising rapidly and stands at approximately 30 percent today. It is expected to rise further over the next decades as private tertiary educational institutions become more numerous in response to demand and facilitated by government policy.
- ◆ China has also begun to increase its expenditure on Research and Development (R&D), with the goal of increasing it to 2.2 percent of GDP by 2015.
- ◆ However, relative to many other economies, China lags behind on both investment in human capital and R&D capital.

The Chinese Economic Fundamentals:

The Size of the Domestic Economy

- ◆ The huge domestic market of 1.34 billion consumers with pent-up demand for housing and transportation and other consumer goods and services (e.g., education and health care), enables the realisation of significant economies of scale in production and in investment in intangible capital, based entirely on the domestic market in China.
- ◆ The huge domestic market greatly enhances the productivity of intangible capital (e.g., R&D capital and goodwill including brand building) by allowing the fixed costs of the R&D for a new product or process or advertising and promotion in brand building to be more easily amortised and recovered.
- ◆ For intangible capital, once the initial fixed costs are recovered, any additional revenue is almost all pure profit.

The Chinese Economic Fundamentals: The Size of the Domestic Economy

- ◆ The huge domestic market also enables active Chinese participation in the setting of product and technology standards, for example, fifth-generation (5-G) standards for telecommunication, and sharing the economic benefits of such standard-setting.
- ◆ Brand-building is a pre-requisite for Chinese enterprises to re-orient themselves to take advantage of the huge domestic market. It is true that brand-building requires resources, but it also enables the owners of brand names to have much more pricing power and higher profit margins than enterprises that do only OEM (original equipment manufacturing) business.

The Chinese Economic Fundamentals

- ◆ In addition to a high national savings rate, a large pool of surplus labour, rising investment in intangible capital (human capital and R&D capital), and the large size of its economy, China also has the advantage of relative backwardness.
- ◆ The Chinese economy has:
 - ◆ The ability to learn from the experiences of successes and failures of other economies;
 - ◆ The ability to leap-frog and by-pass stages of development (e.g., the telex machine, the VHS video players, the fixed landline phones); and
 - ◆ The possibility of creation without destruction (e.g., online virtual bookstores like Amazon.com do not have to destroy brick and mortar bookstores which do not exist in the first place; internet shopping versus brick and mortar malls).

The Chinese Economic Fundamentals

- ◆ However, while good economic fundamentals are necessary for a sustained high rate of growth of an economy, they are by no means sufficient.
- ◆ In the thirty years between 1949, the year of the founding of the People's Republic of China, and 1978, the first year of the Chinese economic reform and opening, China also had (1) a high domestic saving rate; (2) an unlimited supply of surplus labour; and (3) a large domestic economy. But the Chinese economy did not experience a sustained high rate of growth during that period.
- ◆ Similarly, the former Soviet Union also had a high rate of tangible capital accumulation as well as a large domestic economy, but did not experience a sustained high rate of economic growth either.

The Inherent Economic Inefficiency of Central Planning

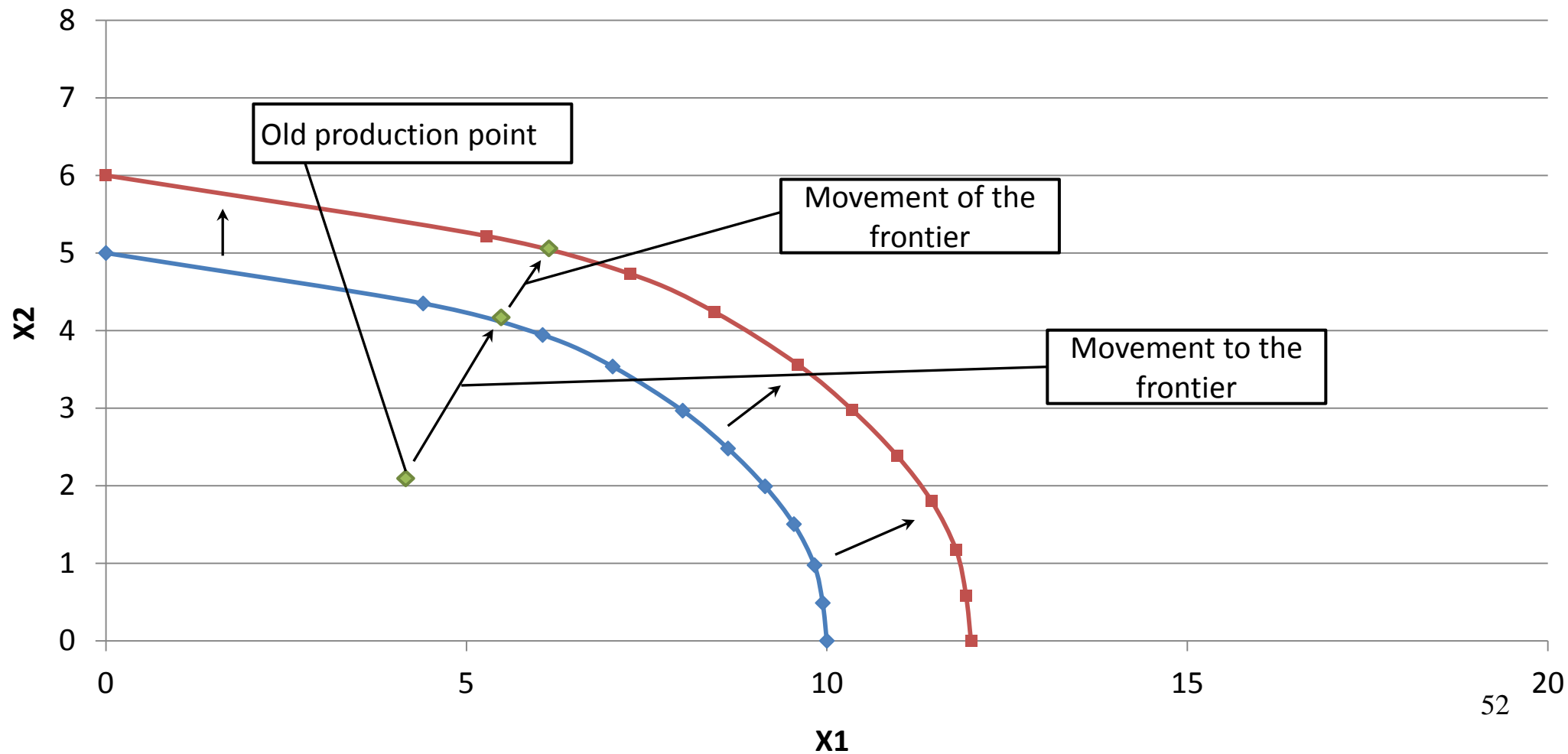
- ◆ Why didn't China (and the former Soviet Union) experience sustained high-rate economic growth despite favourable economic fundamentals?
- ◆ The short answer is that both the Chinese economy before its economic reform of 1978 and the former Soviet economy operated under central planning, with its inherent economic inefficiencies.
- ◆ From 1953, when China launched its First Five-Year Plan, to the end of the last Century, the Chinese economy operated under a series of mandatory central plans. The former Soviet Union and the East European countries also operated under central planning until 1989.

The Inherent Economic Inefficiency of Central Planning

- ◆ For various reasons, a centrally planned economy always operates in the interior of its set of production possibilities. They are:
 - ◆ Incomplete information;
 - ◆ Failure to optimise; and
 - ◆ Lack of incentives.
- ◆ Thus, the output of such an economy can in principle be increased by simply moving to the frontier from the interior of the set of production possibilities without any increase in the inputs. The existence of inherent inefficiency therefore also implies the existence of surplus potential output.

Movement of the Production Possibilities Frontier versus Movement to the Frontier

Production Possibility Frontier

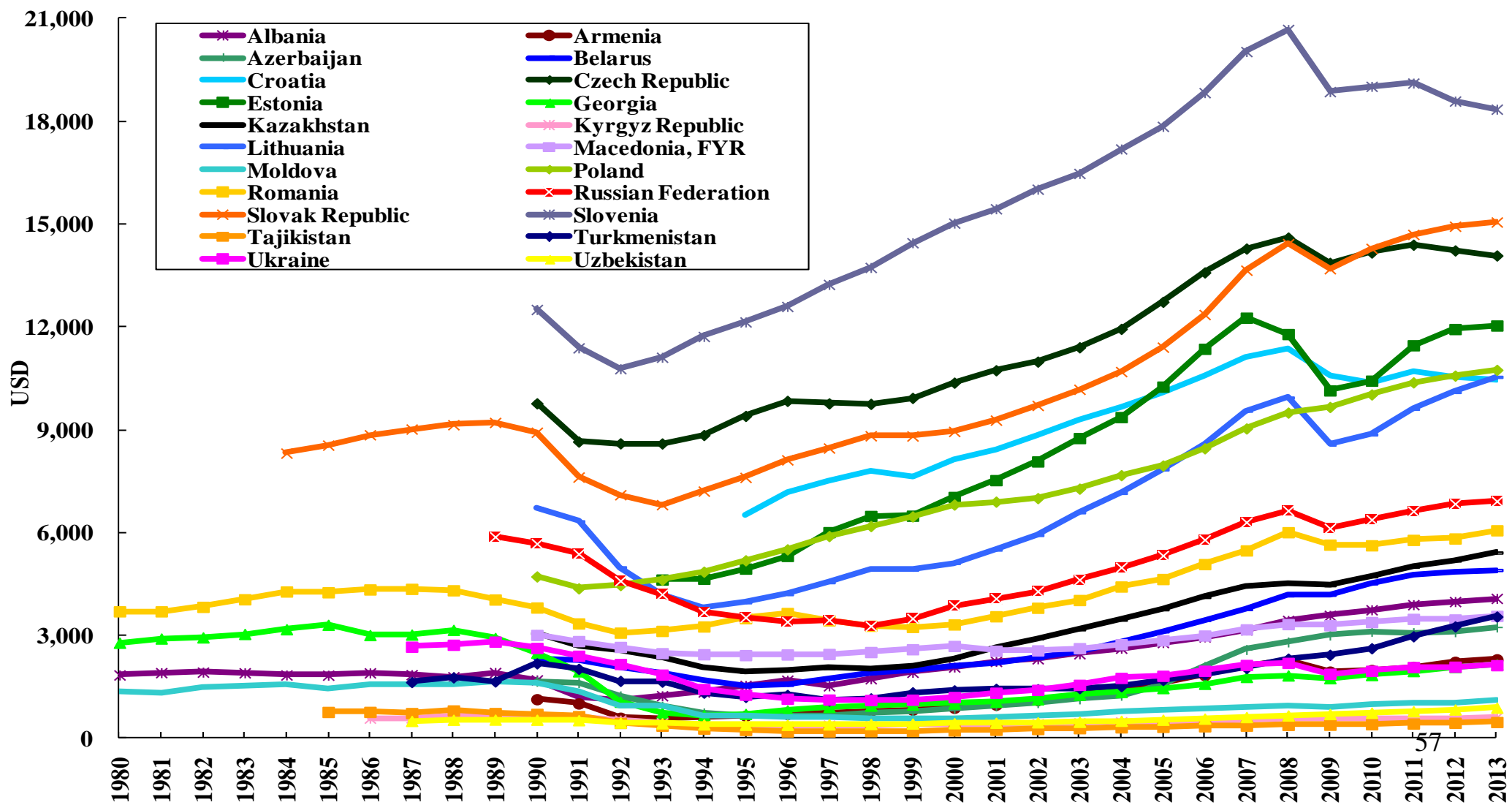


The Benefits of an Open Economy

- ◆ Expansion of the Set of Consumption Possibilities;
- ◆ Imported Resources Augment Domestic Resources (Foreign Direct Investment, Foreign Portfolio Investment, Foreign Loans and Foreign Aid);
- ◆ Technology Transfer (Expansion of the Set of Production Possibilities)

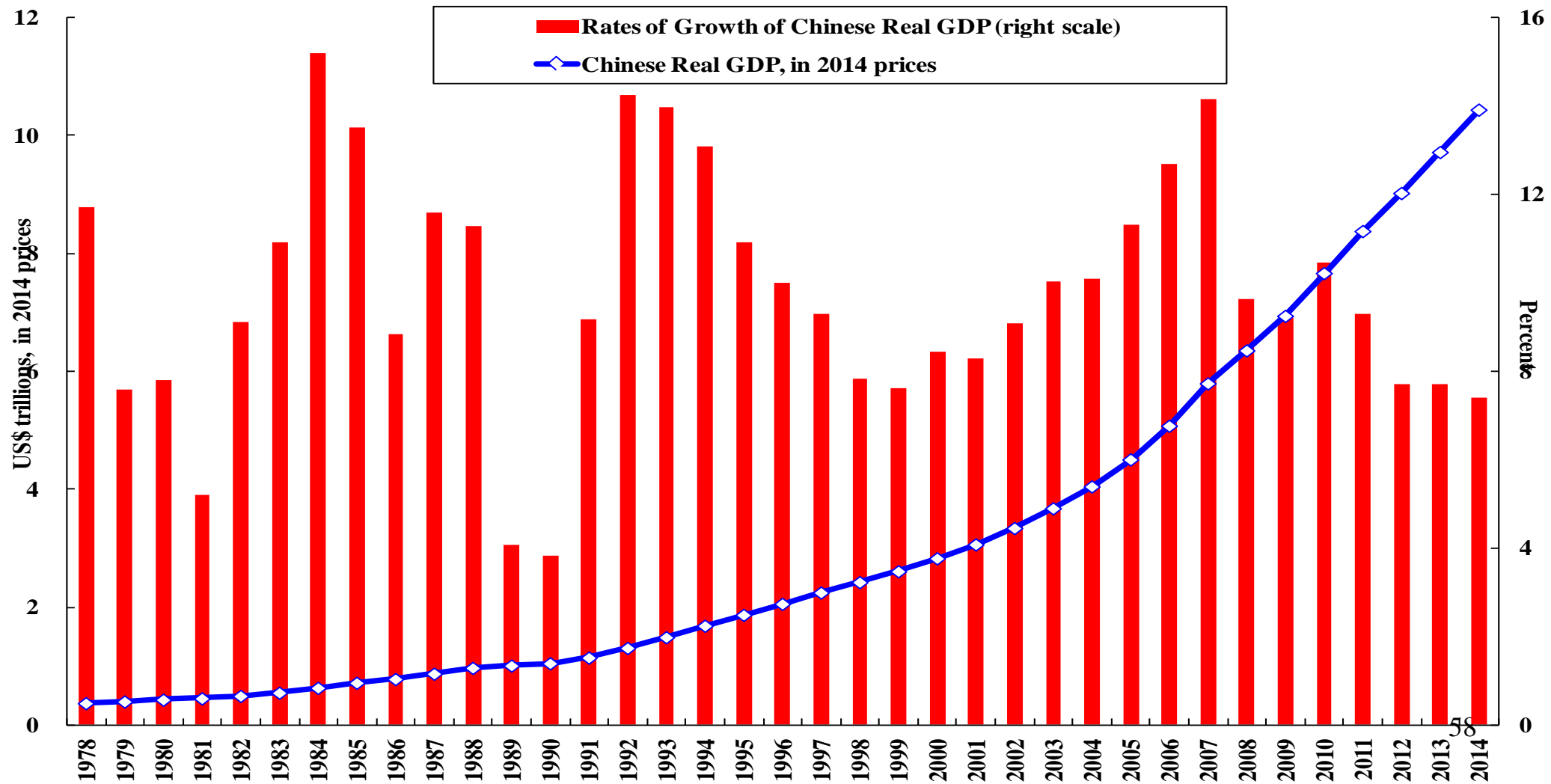
GDP per Capita of Former Soviet Union and East European Countries (2005 US\$)

GDP per capita of Former Soviet Union and East European Countries, in constant 2005 US dollars



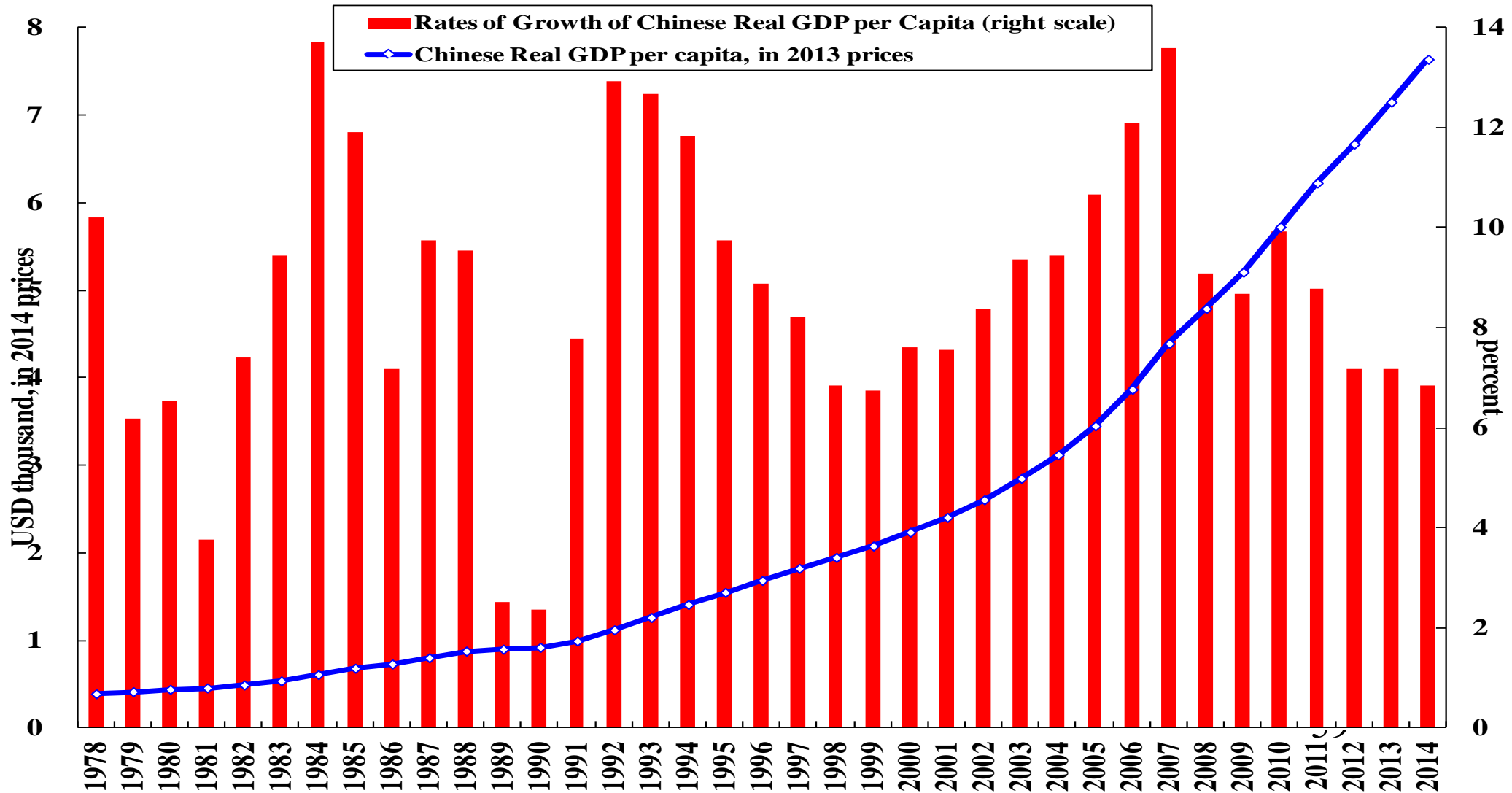
Chinese Real GDP and Its Rate of Growth (2014 US\$) since 1978

The Real GDP and Its Annual Rates of Growth of China (trillion 2014 US\$)



Chinese Real GDP per Capita and Its Rate of Growth (2014 US\$) since 1978

Real GDP per Capita and Its Annual Rates of Growth of China (thousand, 2014 US\$)



Reform without Losers—

The Chinese Strategy for Economic Reform

- ◆ We have identified two factors that contributed to Chinese economic success: favourable economic fundamentals and the existence of surplus potential output. But these factors were also common to other transition economies such as those of the former Soviet Union and the Eastern European countries.
- ◆ What our previous charts have shown is that for a previously centrally planned economy, even though there might have been good economic fundamentals and prior economic inefficiency (and hence surplus potential output), introduction of producer autonomy and the free market and opening to the World may not be sufficient to assure a successful economic transition or a high rate of real economic growth without incurring significant adjustment costs. Only China was able to do so.

Reform without Losers—

The Chinese Strategy for Economic Reform

- ◆ Why was the Chinese economic reform and opening to the World so hugely successful? Why was China able to achieve a smooth and successful transition from a closed centrally planned economy to an open market economy while the former Soviet Union (and East European) countries failed so miserably?
- ◆ It turns out that the choice of strategy for the economic transition matters. In the former Soviet Union and Eastern European socialist countries, the strategy adopted for the transition was the so-called “shock therapy” or “big bang” strategy—that is, a strategy that calls for the immediate and full abolition of the mandatory central plan, relying completely and solely on the newly introduced and still relatively primitive free markets, which lacked the necessary facilitating and supporting institutions.

Reform without Losers—

The Chinese Strategy for Economic Reform

- ◆ During the first couple of decades after the Chinese economic reforms began in 1978, the principle of the avoidance of the creation of net losers in the process was almost always followed—making sure that at every step of the economic reform, no one would be made worse off than before.
- ◆ Thus, China was able to achieve “Reform without Losers”, which was able to maximise popular support for and minimise political opposition to economic reform, thus preserving social stability in the process. This experience is probably unique in the annals of economic development.
- ◆ An easy way to understand “Reform without Losers” is that it involves the “grandfathering” of the existing vested interests so that they do not suffer any net losses as a result of the economic reform.
- ◆ Moreover, such a strategy often can not only make everyone better off than before but also enable the economy to achieve full economic efficiency.

Reform without Losers—

The Chinese Strategy for Economic Reform

- ◆ The Chinese Government did not adopt the “shock therapy” or the “big bang” strategy to implement its economic reform.
- ◆ Instead of dismantling the mandatory central plan all at once, the Chinese Government adopted the “Dual-Track” approach. While introducing enterprise autonomy and free markets, it also continued to enforce the existing central plan. There were thus simultaneously two tracks in the economy: a “Plan Track” and a “Market Track”, which operated in parallel but separately from each other.
- ◆ The “Plan Track”—the pre-existing central plan remained unchanged and the rights and obligations of individuals, households, communes, enterprises and townships under the central plan continued to be enforced by the government.
- ◆ The “Market Track”—all markets for goods and services were instantaneously open, with prices determined by supply and demand in the markets.

Reform without Losers—

The Chinese Strategy for Economic Reform

- ◆ This "Dual-Track" approach as implemented in China can be shown to be not only Pareto-improving, that is, making everyone better off, but also would enable the economy to achieve full economic efficiency (see Lau, Qian and Roland (2000)).
- ◆ By the end of the last Century, the market track of the Chinese economy had grown sufficiently that the (mandatory) plan track became no longer important and was thus gradually phased out.

Reform without Losers—

The Chinese Strategy for Economic Reform

- ◆ As long as the obligations of producers (individuals, households, communes, enterprises and townships) under the central plan had been fulfilled, they were given the autonomy and incentive to plan their own additional production on the margin and to participate in the free markets. However, they would be fully responsible for any profits and losses resulting from their production and market activities outside the central plan.
- ◆ Individuals were also completely free to plan their consumption and participate in the markets, given their allocated consumption goods and fulfillment of their labor obligations under the central plan.

Reform without Losers—

The Chinese Strategy for Economic Reform

- ◆ No one would be worse off under the “Dual-Track” approach, because everyone—a commune, a township, an enterprise, a household or an individual—would have the option of staying with the pre-reform arrangements under the central plan, with identical rights and obligations. Thus, there would be “no losers” with everyone having in addition the opportunity to “win”.
- ◆ All the “vested interests” would thus be “grandfathered.”
- ◆ Since no one would lose and everyone could win, opposition to the economic reform would be minimised, support for the reform would be maximised, and social stability would be preserved. Such a win-win strategy for economic reform would have the best chance of success.

The Monopsonistic Labour Market in China

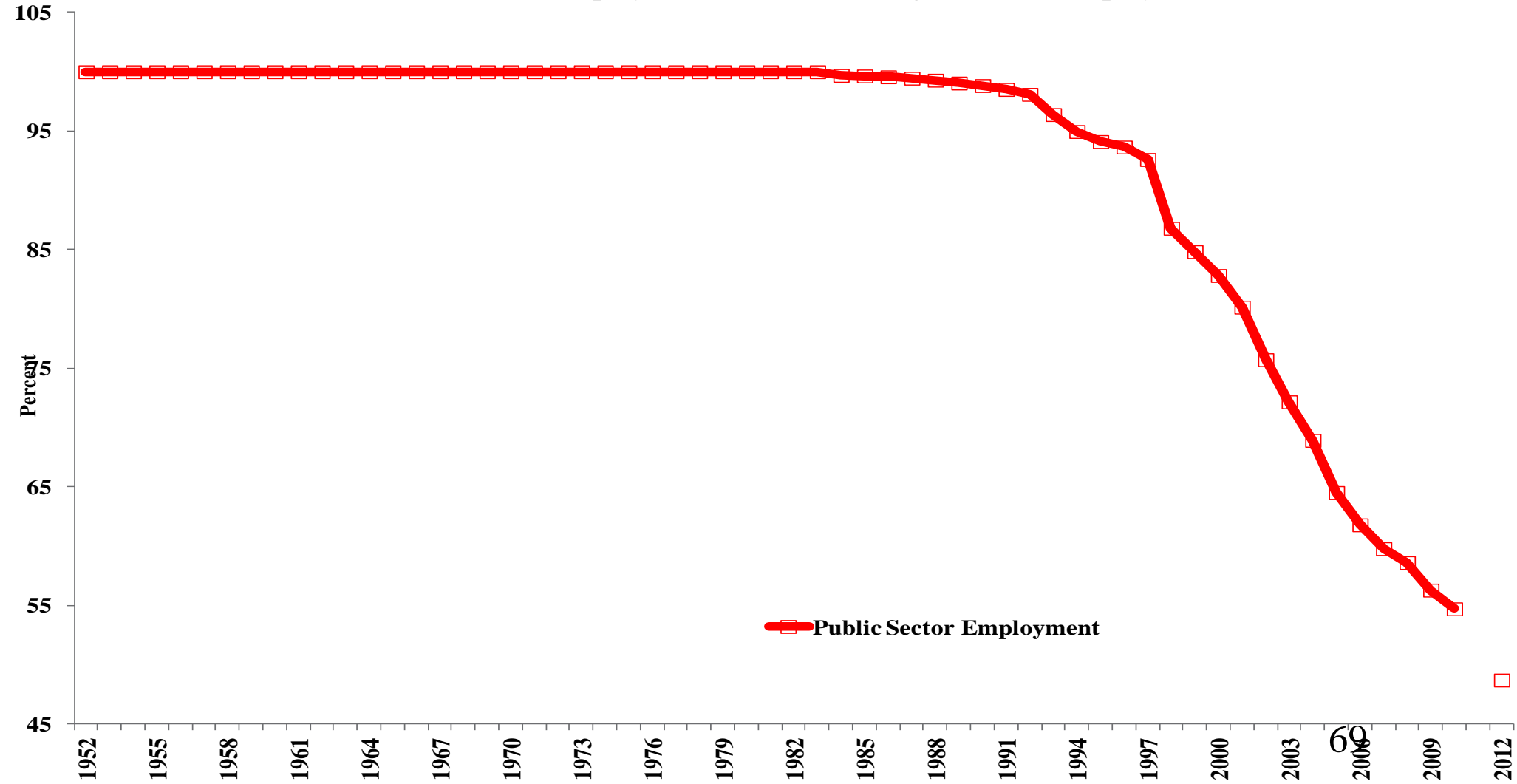
- ◆ Before the economic reform of 1978, the Chinese Government was the sole employer for all workers in China and could set the wage rates for all workers in the urban areas. As the sole employer, the Chinese government could exercise its monopsonistic power and pursued a low (and egalitarian) wage policy, resulting in a low share of labour in GDP.
- ◆ Note that if the government is the sole employer, the wage and individual income tax policies can be de facto integrated—no separate individual income tax is necessary.
- ◆ The low-wage policy was designed to increase national savings so that the needed domestic investments could be financed. The objective of the low-wage policy is similar to the “price scissors” policy of maintaining a large gap between industrial prices and agricultural prices practiced in the former Soviet Union in the early Twentieth Century.

The Monopsonistic Labour Market in China

- ◆ Even as recently as 2010, the share of public sector employment, which includes the employees of central and local governments and their affiliated units, state-owned enterprises, educational and medical institutions, would still be over 50% of all urban employment. The government could therefore exercise a decisive influence on not only the wage rates of the public-sector employees, but also the level of wages as a whole. A government job is still the preferred choice for many Chinese workers today because of the job and income security and the fringe benefits that it offers.

The Share of Public Sector Employment in Total Non-Agricultural Employment in China

The Share of Public Sector Employment in Total Non-Agricultural Employment in China



The Monopsonistic Labour Market in China

- ◆ This low-wage policy has had two effects: first, it has kept the labour share (and the household share) of GDP low; and secondly, it has created large profits for state-owned (and other) enterprises.
- ◆ The disposable household income share of GDP in China was approximately 43% in 2014, much lower than the developed economies, where it would typically be between 60% and 70%, and also other economies with a comparable real GDP per capita.
- ◆ As the Chinese households have less disposable income to spend, China has a lower household consumption to GDP ratio, approximately 30 percent in 2014, than most other economies with a comparable real GDP per capita.

The Monopsonistic Labour Market in China

- ◆ The saving rate of Chinese households out of their disposable income is approximately 30%, comparable to ethnic Chinese households in the economies of both Hong Kong, which only has a fairly rudimentary social safety net, and Taiwan, where the social safety net is more comprehensive and better.
- ◆ The low-wage policy has also resulted in a higher national saving rate in China than in most other economies as the enterprises, especially the state-owned enterprises, declare little cash dividends despite large profits. The saving rate of Chinese enterprises is close to 100 percent.

The Sources of Chinese Economic Growth

- ◆ The realisation of the surplus potential output from the initial slack resulting from central planning
- ◆ The growth of tangible capital and labour inputs
- ◆ The effects of economies of scale
- ◆ The low costs of its transition from a centrally planned to a market economy

The Sources of Chinese Economic Growth: The Effects of Economies of Scale

- ◆ Consider two economies with the same initial levels of tangible inputs capital and labour and the same rates of growth of both inputs of 7% per annum. Suppose that one of the economies has economies of scale of degree 1.1, and the other economy has constant returns to scale. Over a long period of time, the economy with economies of scale will be much larger.
- ◆ In 10 years, the GDP of the economy with economies of scale will be 17.4% larger than the other economy; in 20 years, 25.3%; and in 30 years, 33.8%. These are significant differences. Thus, whether there exist economies of scale can make a huge difference in the level of GDP in a few decades.
- ◆ Moreover, the existence of significant economies of scale can increase the return to fixed investment and may lead to higher investment rates than otherwise.

The “Wild Geese Flying Pattern”—The Further Advantage of China’s Size

- ◆ The metaphor of the "wild-geese-flying pattern" of East Asian economic development over time, introduced by Professor Kaname Akamatsu (1962), suggests that industrialisation will spread from economy to economy within East Asia as the initially fast-growing economies, beginning with Japan, run out of surplus labour and face labour shortages, rising real wage rates, and quota restrictions on their exports, and need to relocate some of its industries to lower-cost economies. The fastest-growing economy will thus slow down and the lower-cost economy will take over as the fastest-growing economy.

The “Wild Geese Flying Pattern”—The Further Advantage of China’s Size

- ◆ Thus, East Asian industrialisation spread from Japan to first Hong Kong in the mid-1950s, and then Taiwan in the late 1950s, and then South Korea and Singapore in the mid-1960s, and then Southeast Asia (Thailand, Malaysia, Indonesia) in the 1970s, and then to Guangdong, Shanghai, Jiangsu and Zhejiang in China as China undertook economic reform and opened to the World beginning in 1978.
- ◆ During this industrial migration, the large trading firms such as Mitsubishi, Mitsui, Marubeni and Sumitomo of Japan and Li and Fung of Hong Kong played an important role as financiers, intermediaries, quality assurers, and managers of logistics and supply chains.

The “Wild Geese Flying Pattern”—The Further Advantage of China’s Size

- ◆ This metaphor actually applies not only to East Asia but also to China itself because of its large size. Within China, industrialisation first started in the coastal provinces, autonomous regions and municipalities and then would migrate and spread to other provinces, regions and municipalities in the interior—to Chongqing, Henan, Hunan, Jiangxi, Shaanxi and Sichuan—as real wage rates rose on the coast.
- ◆ As the coastal provinces, regions and municipalities began to slow down in their economic growth, the provinces, autonomous regions and municipalities in the central and western regions of China would take their turns as the fastest growing areas in China. China as a whole will therefore be able to maintain a relatively high rate of growth for many years to come.

China as a Surplus Economy

- ◆ Given the excess manufacturing capacities, Chinese real GDP is actually not supply-constrained but aggregate demand-determined. If there is aggregate demand, there will be sufficient supply forthcoming to meet the demand.
- ◆ The growth of exports and fixed investment in manufacturing and residential housing can no longer be the principal drivers of the growth of Chinese aggregate demand.

China as a Surplus Economy

- ◆ How did the surplus economy come about? It came about because of massively excess fixed investment in manufacturing and in residential housing.
- ◆ Fixed investment in manufacturing was undertaken by both state-owned and private enterprises without regard to its potential rate of return, often supported by local government officials eager to increase the rates of growth of local GDP and employment during their terms of office, typically five years.
- ◆ Fixed investment in residential housing was undertaken by developers at the local level, with the support of local governments.

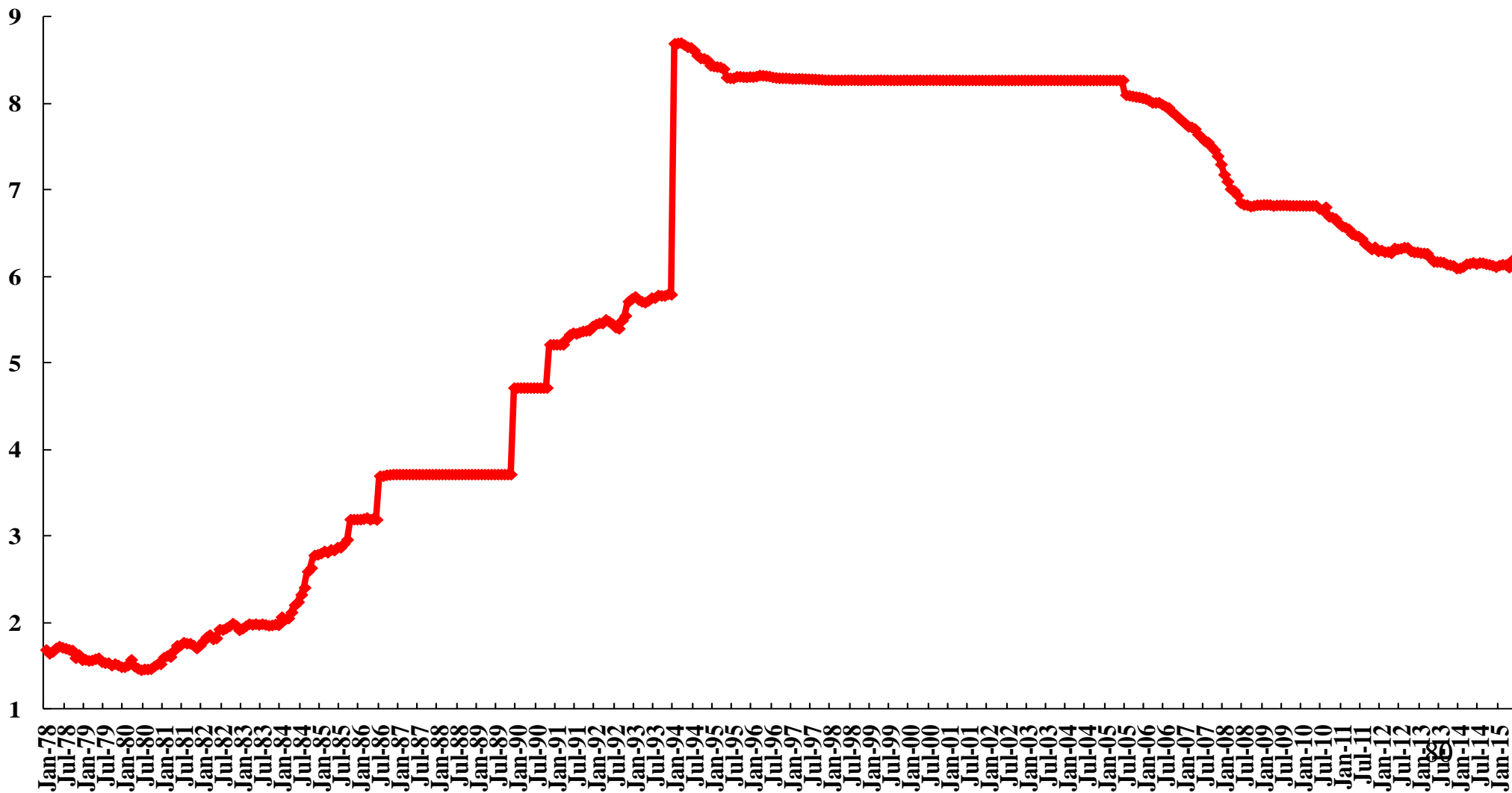
China as a Surplus Economy:

The Chronically Excess Demand for Credit

- ◆ However, even with a national saving rate of almost 50%, there does not seem to be sufficient credit available in China. There seems to be a chronically excess demand for credit.
- ◆ One piece of evidence for the chronically excess demand for credit in China is the very high Renminbi rate of interest relative to the U.S.\$ rate of interest, even though the Renminbi has been appreciating in both nominal and real terms with respect to the U.S.\$ since 2005.
- ◆ This clearly contradicts the interest rate parity theory, which specifies that the rate of interest of the relatively appreciating currency should be lower than the rate of interest of the other currency by the percentage amount of the expected appreciation. (Granted that there exist capital control in China, but the control is at best leaky.) The Renminbi rate of interest has been much higher than the U.S.\$ rate of interest (see the following charts).

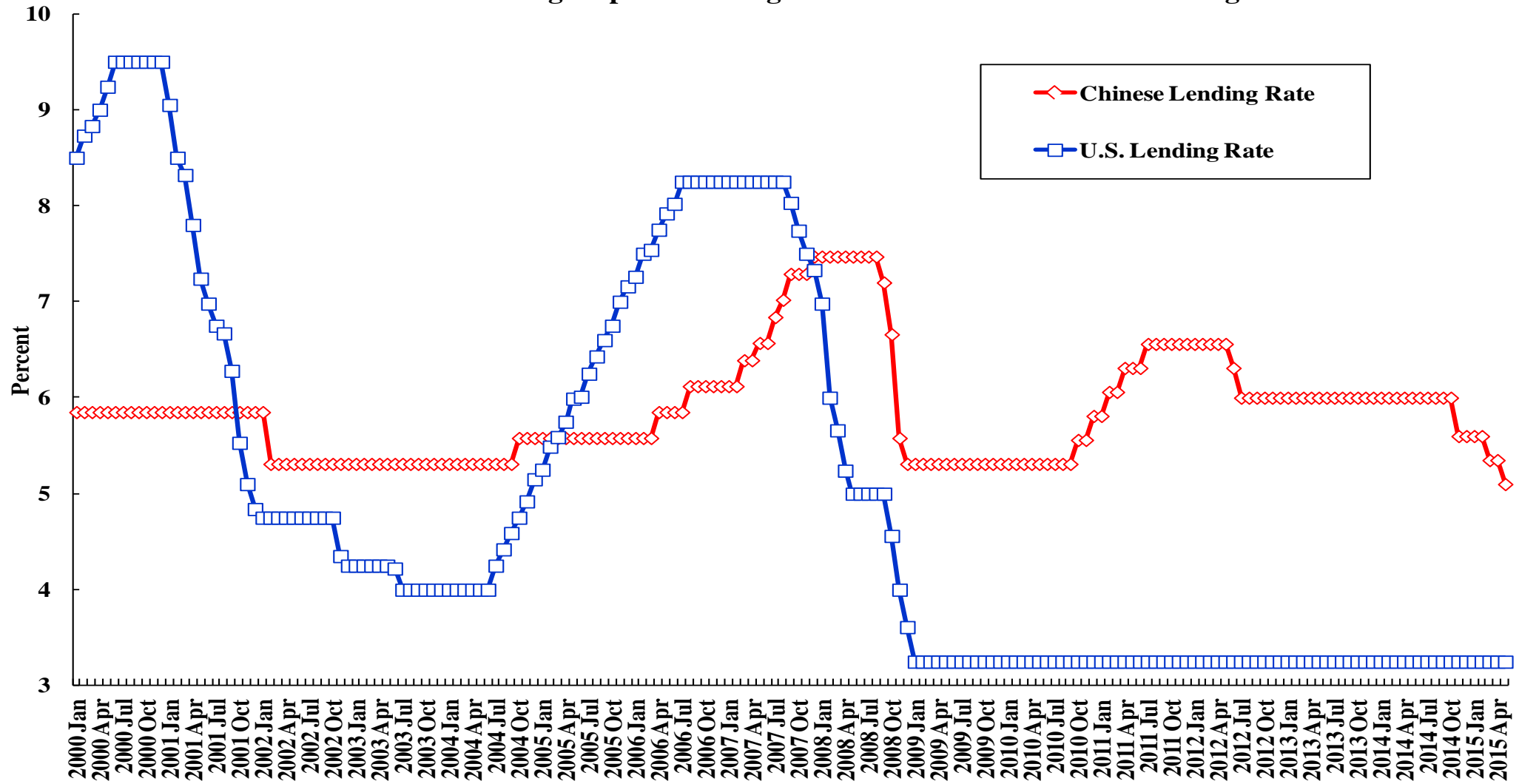
Nominal Exchange Rate of the Renminbi, Yuan/US\$, 1978-present

Nominal Exchange Rate of the Renminbi, Yuan/US\$, 1978-present



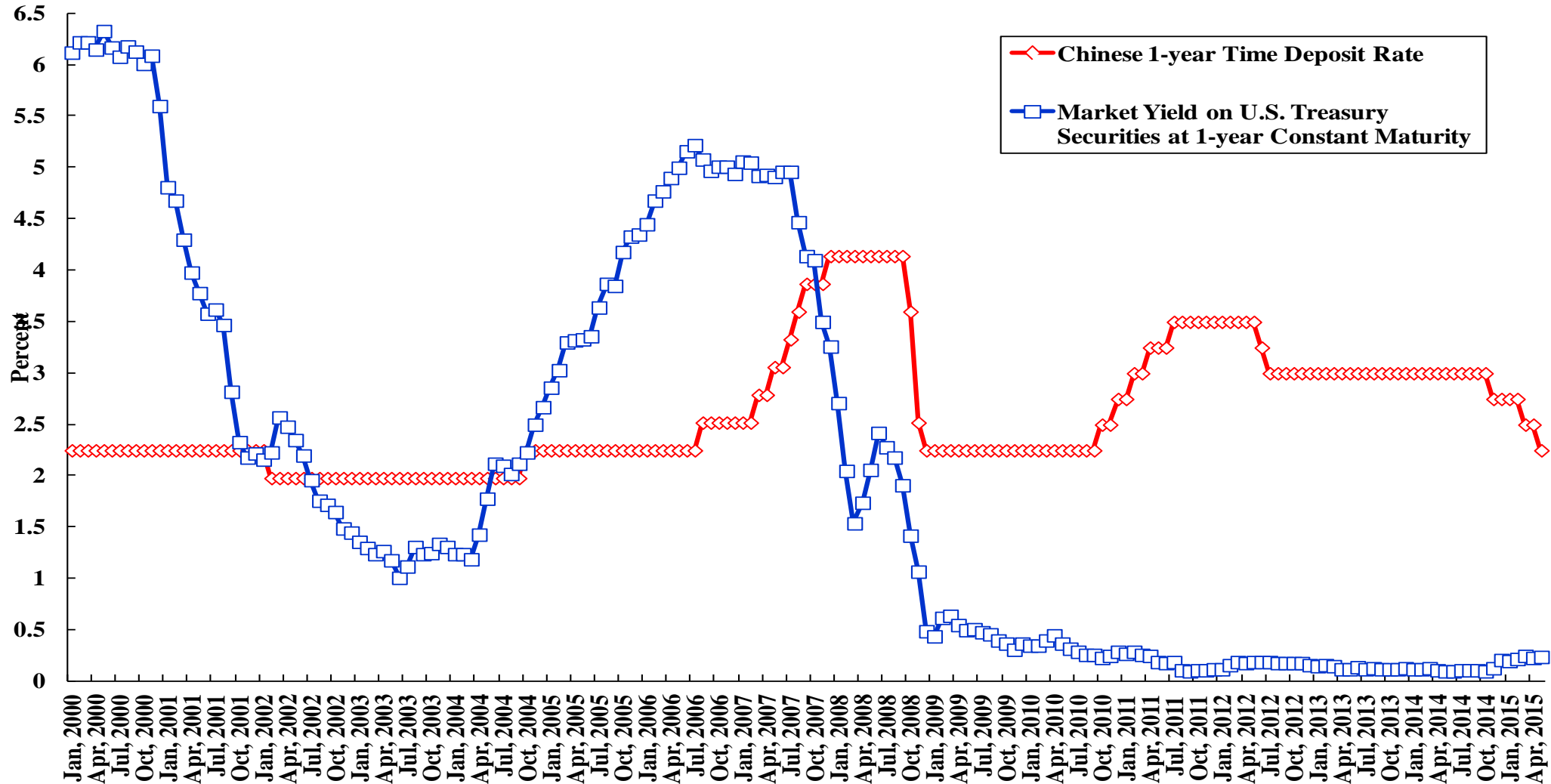
The Chronically Excess Demand for Credit: China-U.S. Lending Interest Rate Differential

Chinese 1-Year Working Capital Lending Rate and U.S. Short-Term Lending Rate



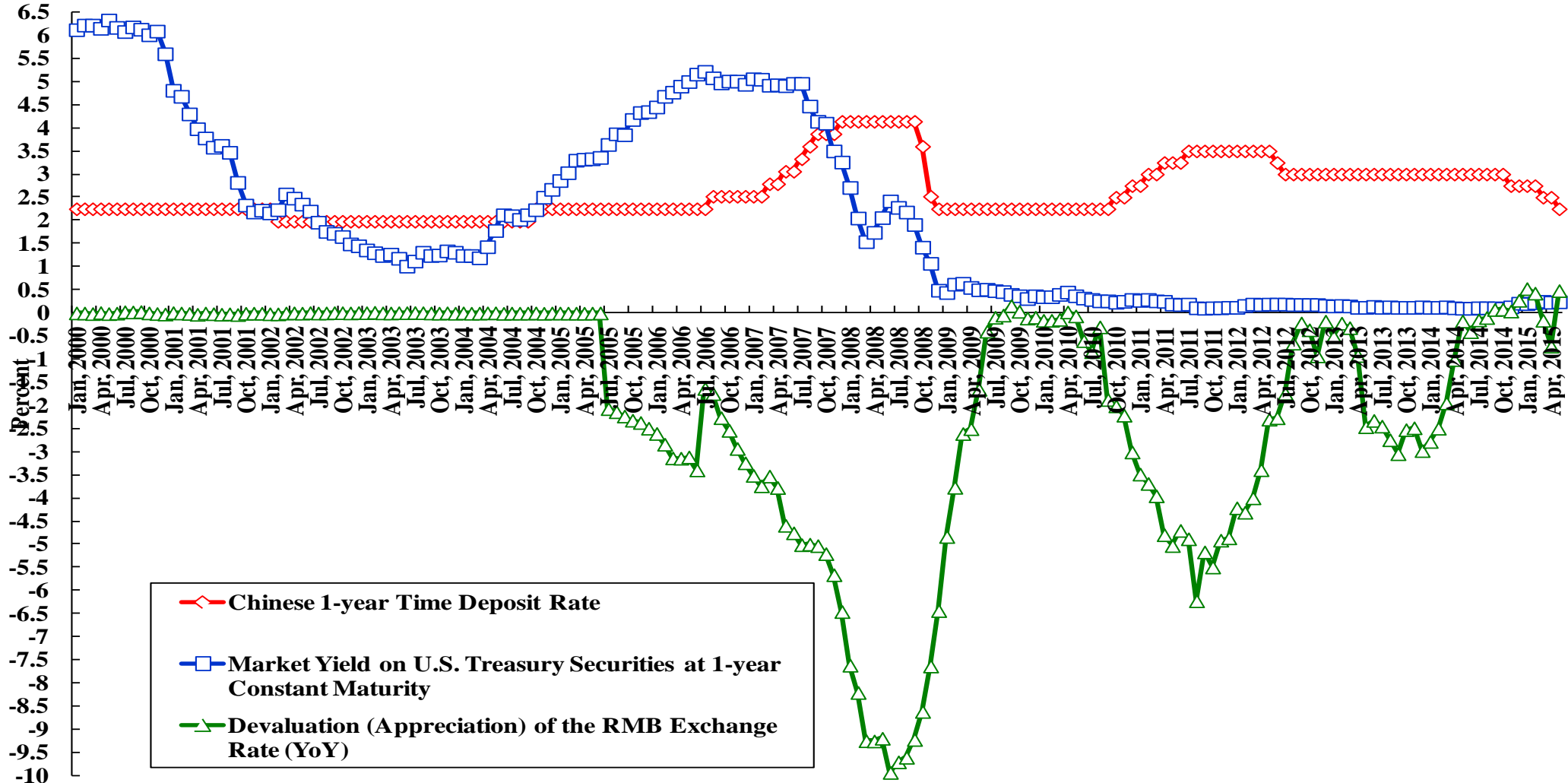
The Chronically Excess Demand for Credit: China-U.S. Deposit Interest Rate Differential

Chinese 1-Year Time Deposit Rate and Market Yield on U.S. Treasury Securities at 1-Year Constant Maturity



The Chronically Excess Demand for Credit: Inconsistency with Interest Rate Parity Theory

Chinese 1-Year Time Deposit Rate, Market Yield on U.S. Treasury Securities at 1-year Constant Maturity and Changes of RMB Exchange Rate (YoY)



China as a Surplus Economy:

The Chronically Excess Demand for Credit

- ◆ The chronically excess demand for credit in China is caused by the fact that many borrowers or potential borrowers, including local governments, state-owned enterprises (SOEs) and private enterprises, do not plan to repay their loans if things do not work out as hoped. If borrowers do not plan to repay their loans when things turn sour, the level of the rate of interest does not matter very much to them. The outcome is a chronically high rate of interest in China caused by a chronically excess demand for credit.

China as a Surplus Economy: Aggregate Demand-Constrained Output

- ◆ The massively excess fixed investment in manufacturing has resulted in huge excess manufacturing capacities in China in industries such as steel, cement, glass, aluminum, ship-building, solar panels, residential housing, etc. at the present time.
- ◆ One important implication of the excess capacities in the Chinese manufacturing sector is that the Chinese real output or GDP is not supply-constrained but aggregate-demand-constrained—as long as there is aggregate demand, the supply will be there to meet the demand.
- ◆ The Chinese GDP is therefore primarily determined by aggregate demand at the present time and the Government can exercise a decisive influence on the level of aggregate demand.
- ◆ Thus, China should be able to continue to grow at an average annual rate of 7% for the next five to ten years, more or less independently of what happens in the rest of the World.

China as a Surplus Economy: From Where Can Growth of Aggregate Demand Come?

- ◆ The growth of Chinese aggregate demand will come principally from domestic demand and not from exports.
- ◆ The growth in household consumption will do its part, especially in the demand for services. The expanding and rising middle class will play a crucial role.
- ◆ However, growth in household consumption alone is not sufficient to sustain the growth in aggregate demand. The expansion of public infrastructural investment and public goods consumption is essential to maintain the growth of aggregate demand.

China as a Surplus Economy: From Where Can Growth of Aggregate Demand Come?

- ◆ Public infrastructural investment include such projects as high-speed railroads, urban mass-transit systems (China and the World cannot afford “a car in every garage”), facilities for the support of universal free or low-cost internet access in urban areas, and affordable housing through urban slum clearance and renewal and other projects related to urbanisation.
- ◆ In addition, one can also consider investment in clean energy, the construction of sea water desalination plants as an alternative source of fresh water supply and storage facilities for a national strategic petroleum reserve.

China as a Surplus Economy: From Where Can Growth of Aggregate Demand Come?

- ◆ Urbanisation can not only increase the demand for public infrastructure and housing, but also promote the growth of the service sector, on both the supply and the demand sides.
- ◆ The growth in public goods consumption (including necessary related investments) such as education, health care, care for the elderly, and environment control, preservation and restoration--securing cleaner air, water and soil can be an important component of the growth of aggregate demand going forward.
- ◆ Increasing public goods consumption is an effective method of redistribution in kind. For example, since everyone breathes the same air, if the air is cleaner, both the wealthy and the poor benefit equally; and better access to health care may benefit the lower-income households more. Expansion of public goods consumption can thus reduce the real income disparity significantly.

China as a Surplus Economy: Aggregate Demand-Constrained Output

- ◆ Chinese household consumption has actually been growing quite rapidly since the first quarter of 2009. The rates of growth of real retail sales have been running at approximately 150% of the rates of growth of real GDP.
- ◆ However, it will be a long time before Chinese household consumption can become the major driver of Chinese economic growth. The share of disposable household income in Chinese GDP is approximately 43% in 2014. Even if the household saving rate declines to zero, household consumption cannot exceed 50% of GDP, compared to between 65% and 70% for developed economies.
- ◆ The share of household consumption in GDP was approximately 30%.

China as a Surplus Economy: The Potential Sources of Aggregate Demand

- ◆ However, both public infrastructural investment and public goods consumption require the leadership and support of the central and local governments.
- ◆ While expenditures on public goods consumption, including the necessary related investments, will count as GDP, some of the benefits of these expenditures may not be pecuniary, for example, cleaner air, water and soil, better education, better national health, etc., and may not be fully reflected in the conventional measurement of GDP. However, the increase in general welfare as a result of these expenditures is definitely real.

The Importance of Expectations

- ◆ Expectations of the future are important determinants of enterprise and household behaviour, which in turn determines whether an economy grows or stagnates. The Chinese central government has the proven credibility to change expectations through its plans and actions.
- ◆ In 1992, Mr. Deng Xiaoping undertook his famous southern tour, which changed expectations in the entire country overnight. Enterprises started investing and households started consuming. As a result, 1992, 1993 and 1994 were boom years.
- ◆ In 1997, Premier ZHU Rongji held the Renminbi/US\$ exchange rate steady amidst the chaos of the East Asian currency crisis, and thus managed to maintain the confidence of the investors and consumers about China's economic future, keeping the economy growing.
- ◆ In 2008, Premier WEN Jiabao launched the 4 trillion Yuan economic stimulus programme, barely six weeks after the collapse of Lehman Brothers, which once again helped to hold the confidence of Chinese enterprises and households in their economic future.

The Importance of Expectations

- ◆ In all of these cases, the Chinese government was able to turn around the very negative expectations about the future of the Chinese economy into positive ones, and in so doing greatly reduced the uncertainty pertaining to the future and increased general business confidence. These changes in turn fueled investment booms that resulted in the subsequent economic growth.
- ◆ Expectations often have the ability to be “self-fulfilling.” If everyone believes that the economy will do well and act accordingly, by investing and consuming, the economy will indeed turn out to do well, and vice versa.
- ◆ Expectations will continue to play an important role in the Chinese economy. A strong central government with the power to mobilise aggregate demand can credibly change expectations in a positive direction to keep the economy growing.

The On-Going Economic Challenges

- ◆ The Rapidly Aging Population
- ◆ The Anti-Corruption Campaign
- ◆ Shadow Banking
- ◆ Local Government Debt
- ◆ The Deficit in Human Capital
- ◆ The Innovation Gap
- ◆ The Environmental Degradation
- ◆ The Excess Capacities in Manufacturing
- ◆ The Excess Supply of Residential Real Estate

The On-Going Economic Challenges: Is a Hard Landing Likely?

- ◆ The principal challenge facing the Chinese economic policy makers is not so much the growth of real GDP but employment.
- ◆ In 2013, 13 million new jobs were created. In 2014, 10 million new jobs were created. This target is achievable as the service sector (46.1% by GDP and 38.5% by employment in 2013) is now larger and growing faster than the manufacturing sector (41.9% by GDP and 30.1% by employment in 2013). An expansion of service-sector GDP creates 30% more employment than an expansion of manufacturing-sector GDP of the same amount and requires much less fixed investment as well as energy.

The On-Going Economic Challenges: The Rapidly Aging Population

- ◆ The rapid aging of the Chinese population is a challenge from the point of view of adequate provision of retirement benefits and elderly care.
- ◆ However, there will not be a “real” labour shortage despite the decline of the “working-age population”—the existing retirement ages of 55 for women and 60 for men are too low given the lengthened life expectancy of the Chinese population. One ready solution is to raise the retirement age to 65 (possibly on a voluntary and phase-in basis).
- ◆ The “one-child policy” is already in the process of being modified. The decision of the Third Plenum of the Eighteenth Central Committee allows a couple with one spouse being a single child to have two children. However, its effects on the size of the “working-age population” is not likely to be felt for at least a couple of decades.

The On-Going Economic Challenges:

The Anti-Corruption Campaign

- ◆ The anti-corruption campaign has been quite successful so far, hitting both “tigers and flies” as promised. It has proved to be extremely popular with the public.
- ◆ The “Anti-Corruption” campaign has had some effect in discouraging initiatives on the part of some government officials. It is “safer” to do nothing in the midst of the campaign so as not to attract attention to oneself. The recent slowdown in the rate of economic growth may therefore be attributed in part to the inaction of some government officials because of the anti-corruption campaign and to the regulations against luxury consumption by government officials.

The On-Going Economic Challenges: The Anti-Corruption Campaign

- ◆ However, since ultimately the most important objective of the campaign is to deter future corruption and not to try to catch each and every government official who committed transgressions in the past, it is anticipated that at an appropriate time, after suitable safeguards against corruption have been put in place systematically, “mission accomplished” will be declared, with the new phase of the anti-corruption campaign focused on deterring and punishing continuing or new acts of corruption.
- ◆ Reduction of official discretion is one way to reduce potential corruption but it must be carefully done to avoid the creation of potential new problems.

The On-Going Economic Challenges: Shadow Banking

- ◆ “Shadow banking” has become more common in Mainland China in the last few years. Shadow banking arises in response to various restrictions on bank lending and other requirements such as the total quota on the value of loans outstanding and its rate of increase, capital requirements, leverage ratios, and reserve requirements.
- ◆ The fundamental idea of “shadow banking” is to move both “deposits” and “loans” off the bank’s balance sheet and hence reduce the size of its total assets and liabilities through various arrangements and devices, circumventing all kinds of legal requirements and restrictions.

The On-Going Economic Challenges: Shadow Banking

- ◆ Shadow banking also appears to generate advantages for everyone except possibly the shareholders of the bank and the regulator. The net result, however, is a significantly lower actual capital ratio and a significantly higher actual leverage, increasing the risks to the bank and to the financial sector as a whole.
- ◆ Moreover, the borrowers typically wind up paying much higher actual rates of interest than if they borrow directly from the Bank.

The On-Going Economic Challenges: Shadow Banking

- ◆ The proportion of financing in China accounted for by conventional bank loans was over 90 percent in 2002 but has since fallen to below 50%. Shadow banking probably accounts for 17-20 trillion Yuan worth of “loans”, approximately 30% of GDP, still considerably lower than the comparable percentages in other major developed economies. But the commercial banks are involved in 60% of the shadow banking activities in China, much more than the commercial banks in other countries and regions.

The On-Going Economic Challenges:

Shadow Banking

- ◆ This means that the implicit hidden liabilities of the commercial banks and hence their leverage ratios are much higher than are represented on their balance sheets, posing significant risks to the financial system because of the potential of over-leveraging. Moreover, there is unlikely to be sufficient provision against non-performing “shadow loans”.
- ◆ The Chinese regulators are aware of these problems and have been taking steps to control and restrict shadow banking.
- ◆ In May, the People’s Bank of China granted commercial banks the authority to raise deposit interest rates to 1.5 times the benchmark rate that it sets, up from the previous 1.3 times. However, it is not clear that too many banks have taken advantage of this flexibility. The introduction of deposit insurance should help bring more competitive deposit rates. What is needed is the abolition of the “guaranteed” interest rate spread between the lending and the deposit rates imposed by the China Banking Regulatory Commission.

The On-Going Economic Challenges:

Local Government Debt

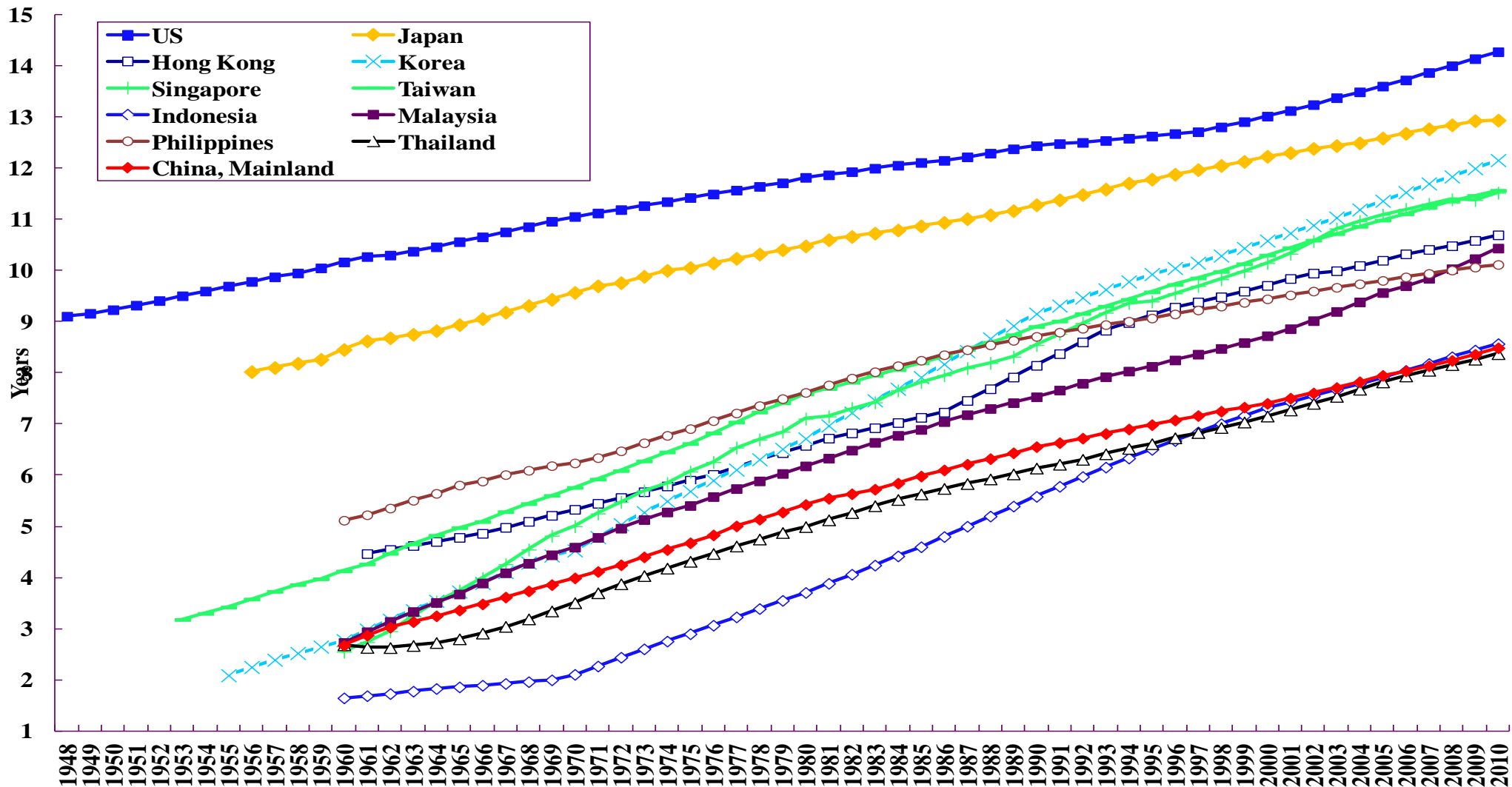
- ◆ Total Chinese central government public debt may be estimated at 9.8 trillion Yuan as of mid-2013, with another 2.5 trillion Yuan of contingent liabilities of various kinds, including those of the China Railway Corporation.
- ◆ According to China's National Audit Office, total local government debt may be estimated at 10.9 trillion Yuan as of mid-2013, with another 7 trillion Yuan of contingent liabilities of various kinds. In May 2015, it was reported that provincial government debt totalled approximately 16 trillion Yuan, or about 25% of Chinese GDP.
- ◆ Private household debt may be estimated at 16 trillion Yuan and enterprise debt at around 70 trillion Yuan in mid-2013.
- ◆ To put all of these figures into perspective, the Chinese GDP in 2013 was 57 trillion Yuan. Total central and local government debt (including contingent liabilities) as a percentage of GDP may therefore be approximately estimated as 53% in 2013.

The On-Going Economic Challenges: Local Government Debt

- ◆ However, it is unlikely that all of the local government debt would become non-performing. Even if half of the local government debt eventually becomes non-performing, in which case it is likely that part of the losses would be assumed by the central government, which will still have a relatively low public debt to GDP ratio of less than 40% compared to 150% for the U.S. and 250% for Japan.
- ◆ In addition, China has a high national saving rate in the mid forties. Its public debt is almost exclusively denominated in Renminbi and held mostly by Chinese nationals. The Government deficit is low relative to GDP and the rate of growth of government revenue has been greater than or equal to the rate of growth of GDP. All of this suggests that the public debt problem should be manageable.

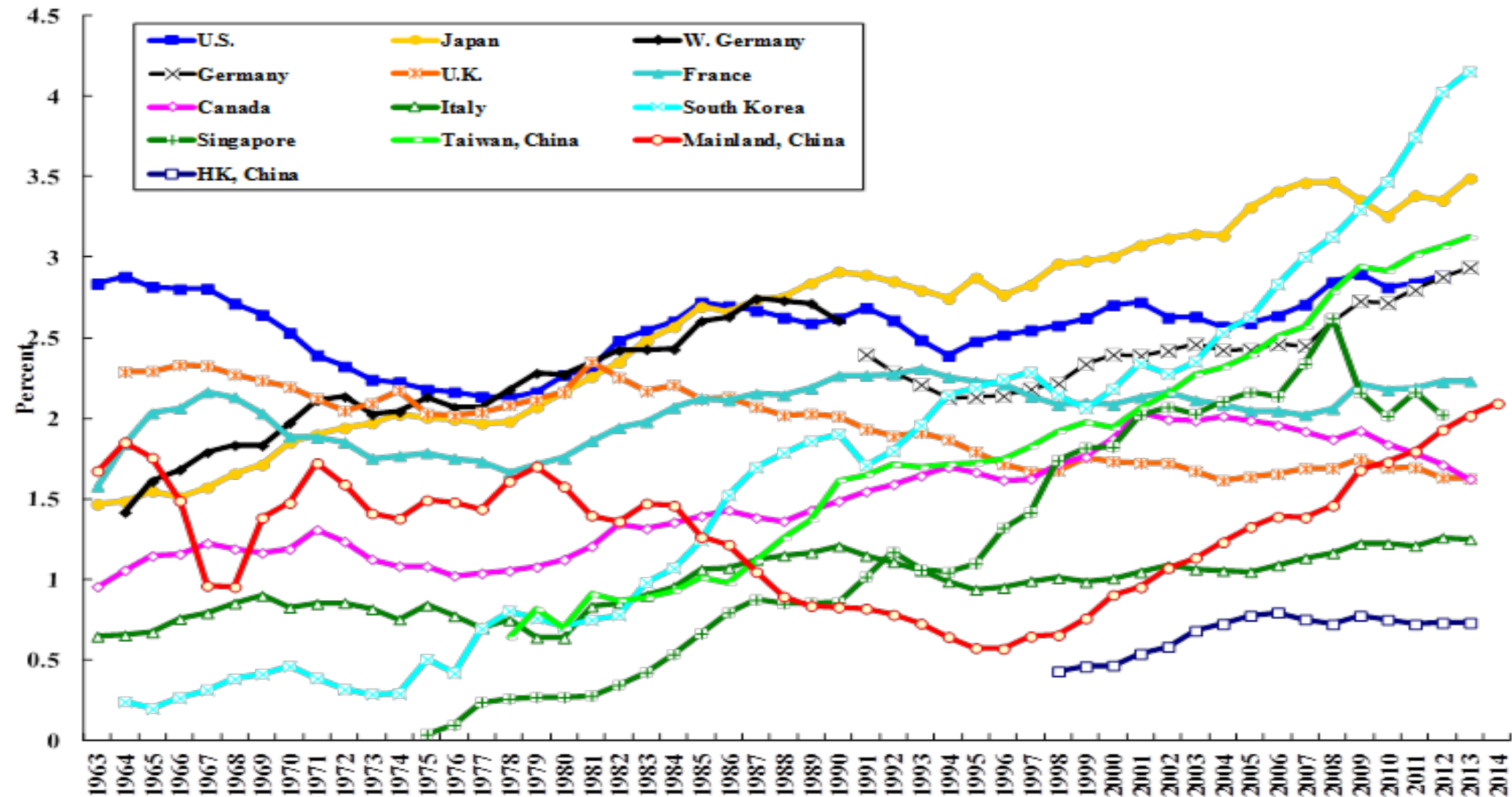
Average Number of Years of Schooling of Selected Economies (1945-present)

Average Number of Years of Schooling of Selected Economies (1945-present)

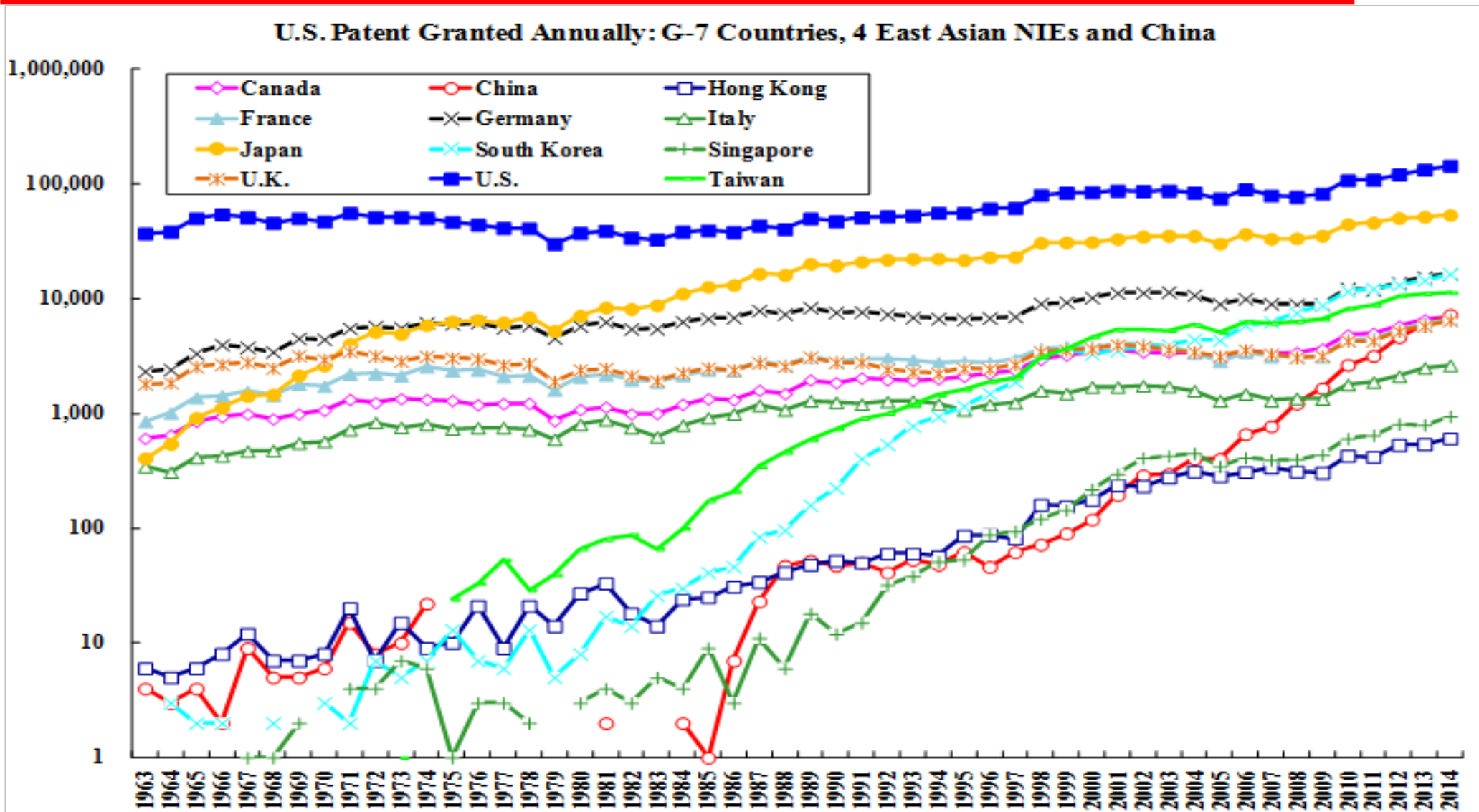


R&D Expenditures as a Ratio of GDP: G-7 Countries, 4 East Asian NIES & China

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

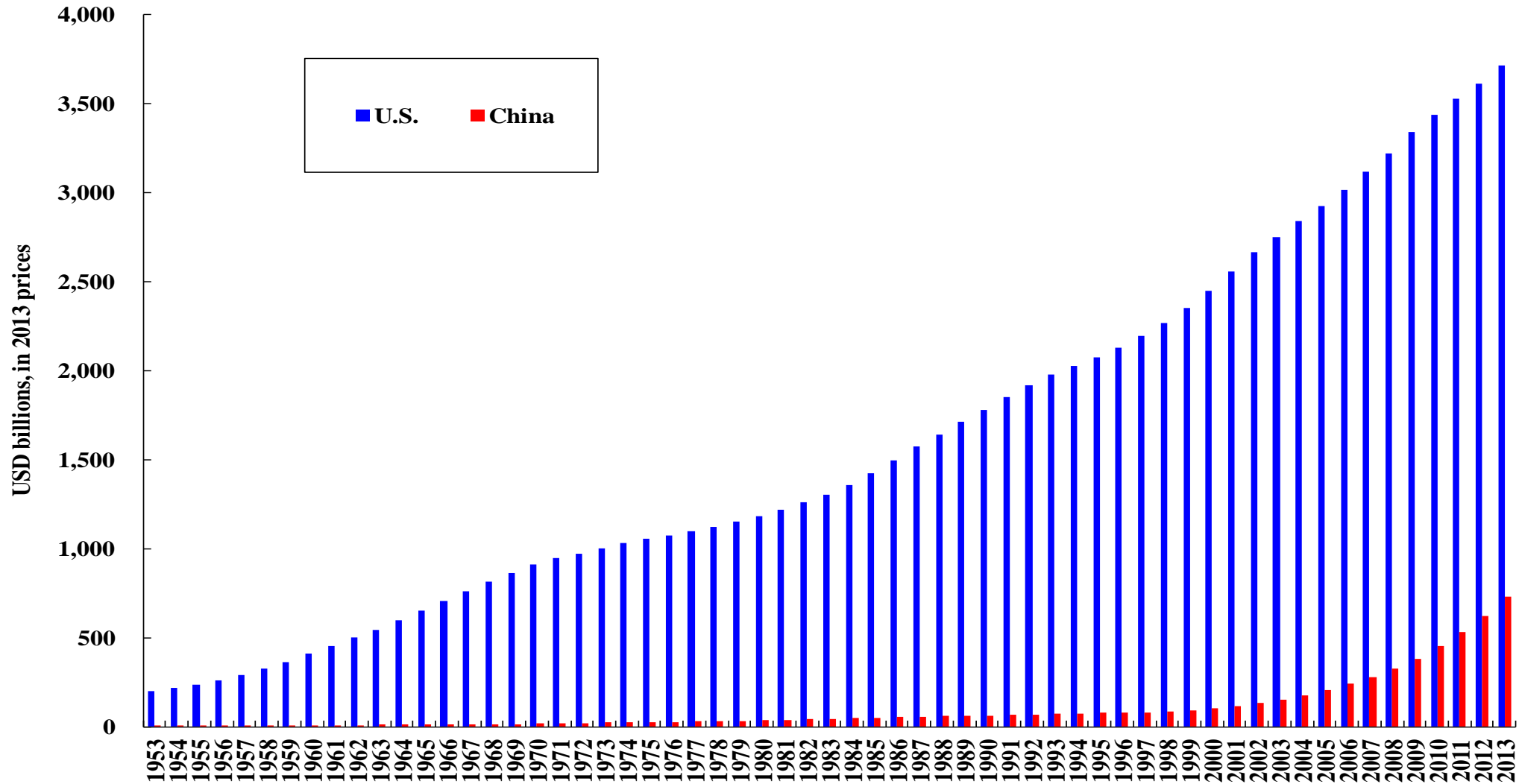


Patents Granted in the United States: G-7 Countries, 4 East Asian NIEs & China



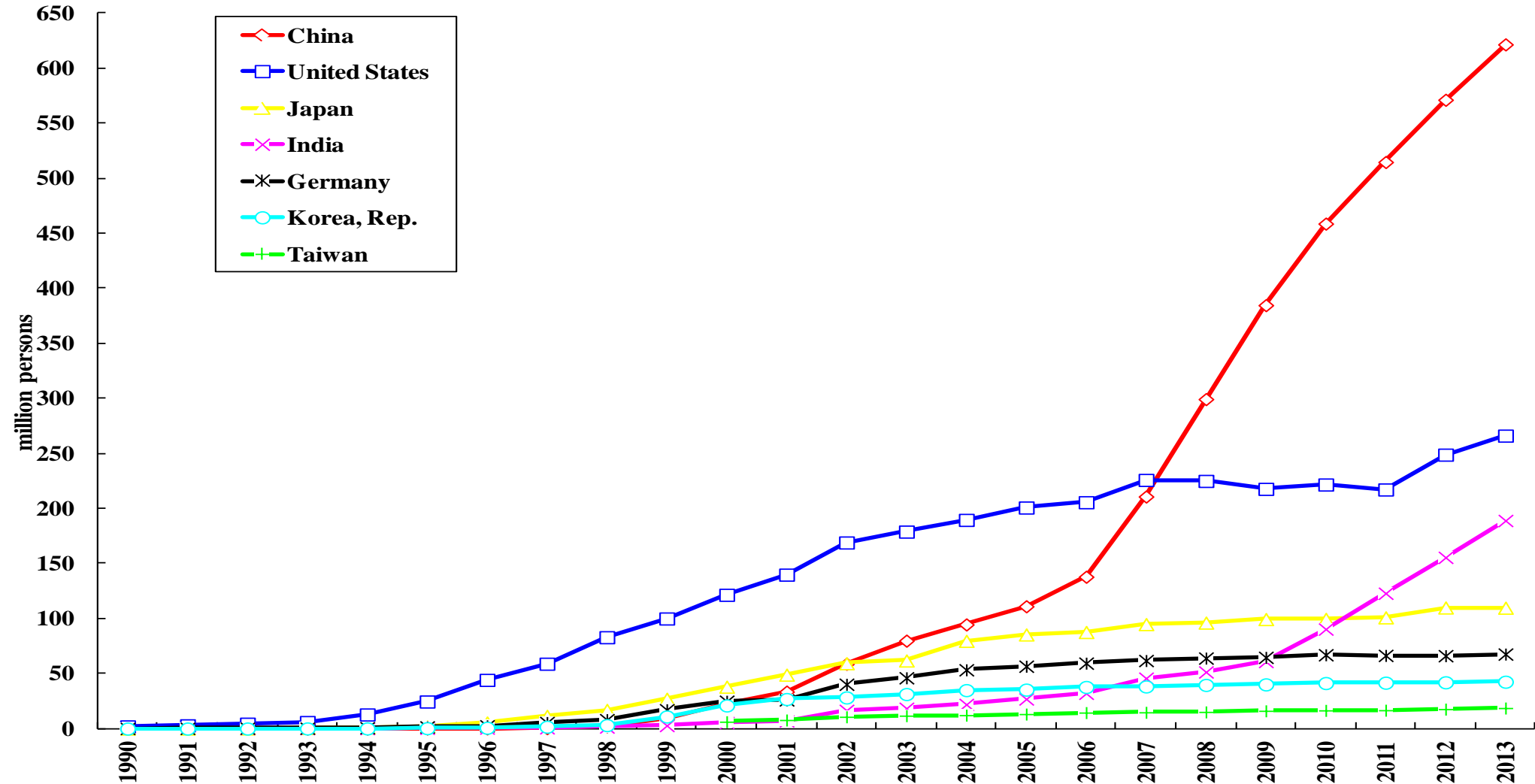
R&D Capital Stocks: A Comparison of China and the U.S., 2013 US\$

R&D Capital Stocks, U.S. vs. China



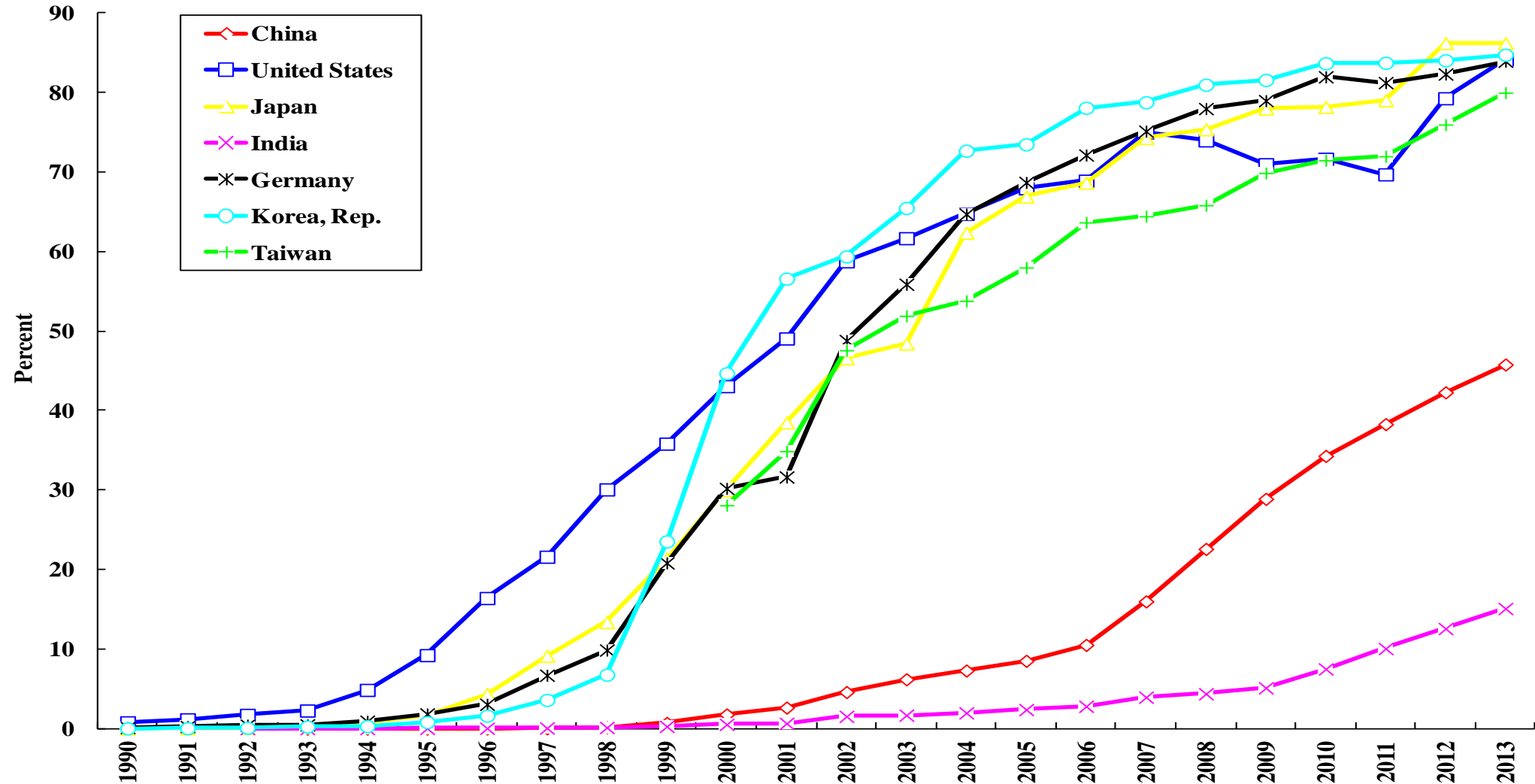
The Number of Internet Users in Selected Economies

The Number of Internet Users in Selected Economies, million persons



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



The On-Going Economic Challenges:

The Environmental Degradation

- ◆ The air quality has become a serious concern of both the government and the public in China. The level of PM 2.5 in the air is likely to become a key performance indicator for local officials in the Thirteenth Five-Year Plan.
- ◆ Similarly, the State Council has published stringent standards for water quality and they are also likely to find their ways into key performance indicators for local officials in the Thirteenth Five-Year Plan.
- ◆ In a historic agreement, President Barack Obama and President XI Jinping have agreed to take joint action to reduce carbon emission and hence the risks of climate change. The United States intends to achieve an economy-wide target of reducing its carbon emissions by 26%-28% below its 2005 level in 2025 and to make best efforts to reduce its emissions by 28%. China intends to cap its CO₂ emissions by 2030 and to make best efforts to peak earlier. China also intends to increase its share of non-fossil fuels (nuclear, solar and wind energy) in primary energy consumption to around 20% by 2030.

The On-Going Economic Challenges: The Excess Supply of Residential Real Estate

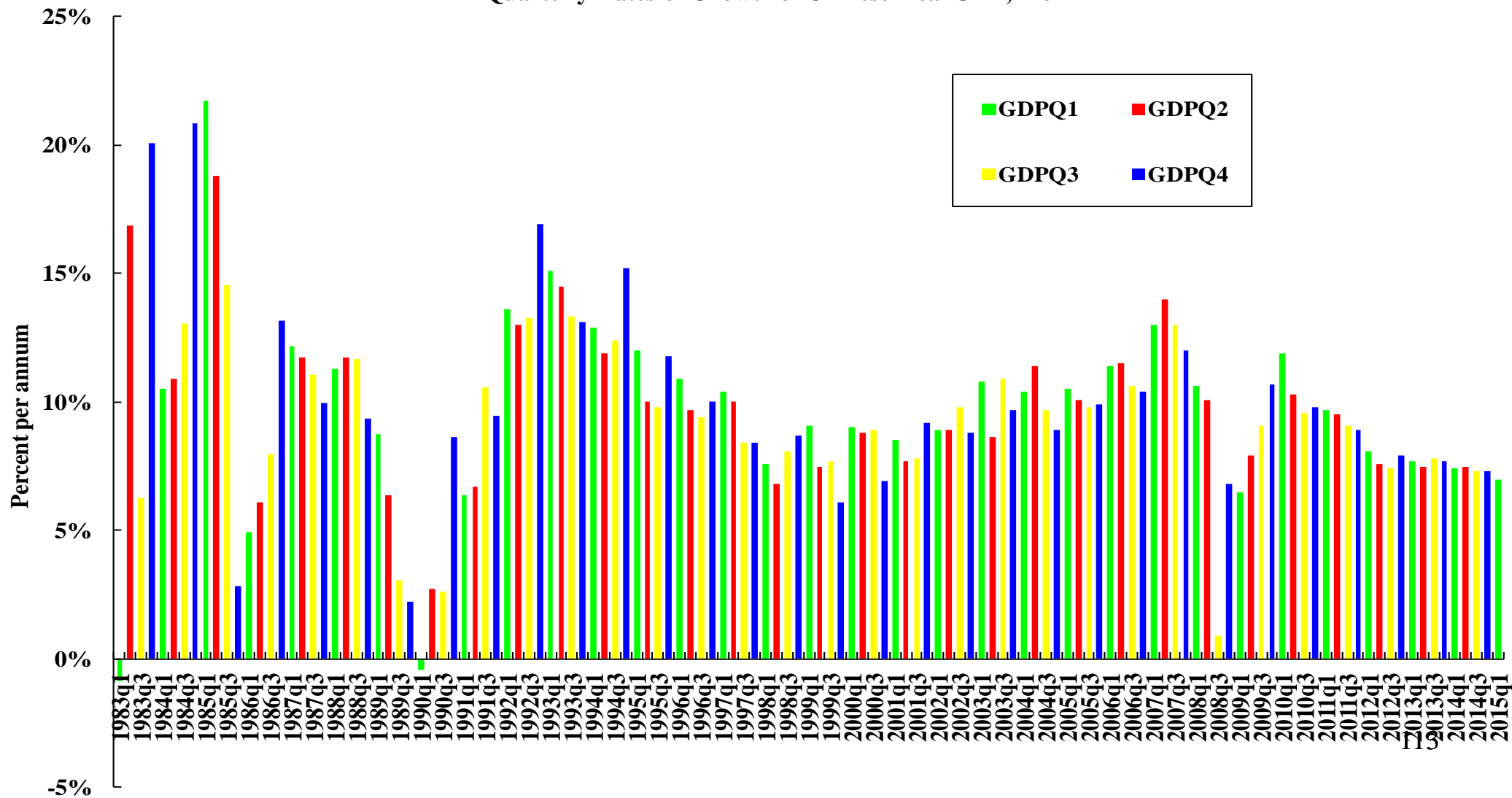
- ◆ There is an excess supply of residential housing in almost all cities in China. The situation is the worst in third- and fourth-tier cities. But even Beijing and Shanghai are not spared.
- ◆ Fortunately, the overall debt to equity ratio is approximately 20% for residential housing, so that even when the housing price bubble bursts, the impact will not be too severe.

The Short- and Medium-Term Economic Outlook: The Chinese Economy

- ◆ The Chinese economy grew 9.2% in 2009, 10.4% in 2010, 9.3 % in 2011, 7.7% in 2012 and 2013 and 7.4% in 2014 even as the European economies remained in recession and the U.S. economy just began to have a more robust recovery. However, the Chinese growth slowdown is unmistakable but should be considered to be a positive development.
- ◆ The official target average growth rate for the Twelfth Five-Year Plan (2011-2015) period is a relatively modest 7%. Given the realised rates of growth for 2011-2014, an average real rate of growth of 7% per annum is definitely achievable for the Twelfth Five-Year Plan (2011-2015) period.
- ◆ In 2014 Q1, 2014Q2, 2014 Q3 and 2014Q4, the rates of growth were 7.4%, 7.5%, 7.3% and 7.3%, Y-o-Y, respectively. In 2015Q1, the rate of growth was 7.1%, Y-o-Y. The target growth rate of the Chinese economy for 2015 is around 7%. The industrial sector grew 6.4% and the service sector grew 7.9% Y-o-Y in 2015Q1, continuing a shift from the industrial sector to the service sector, which has become the largest in the economy.

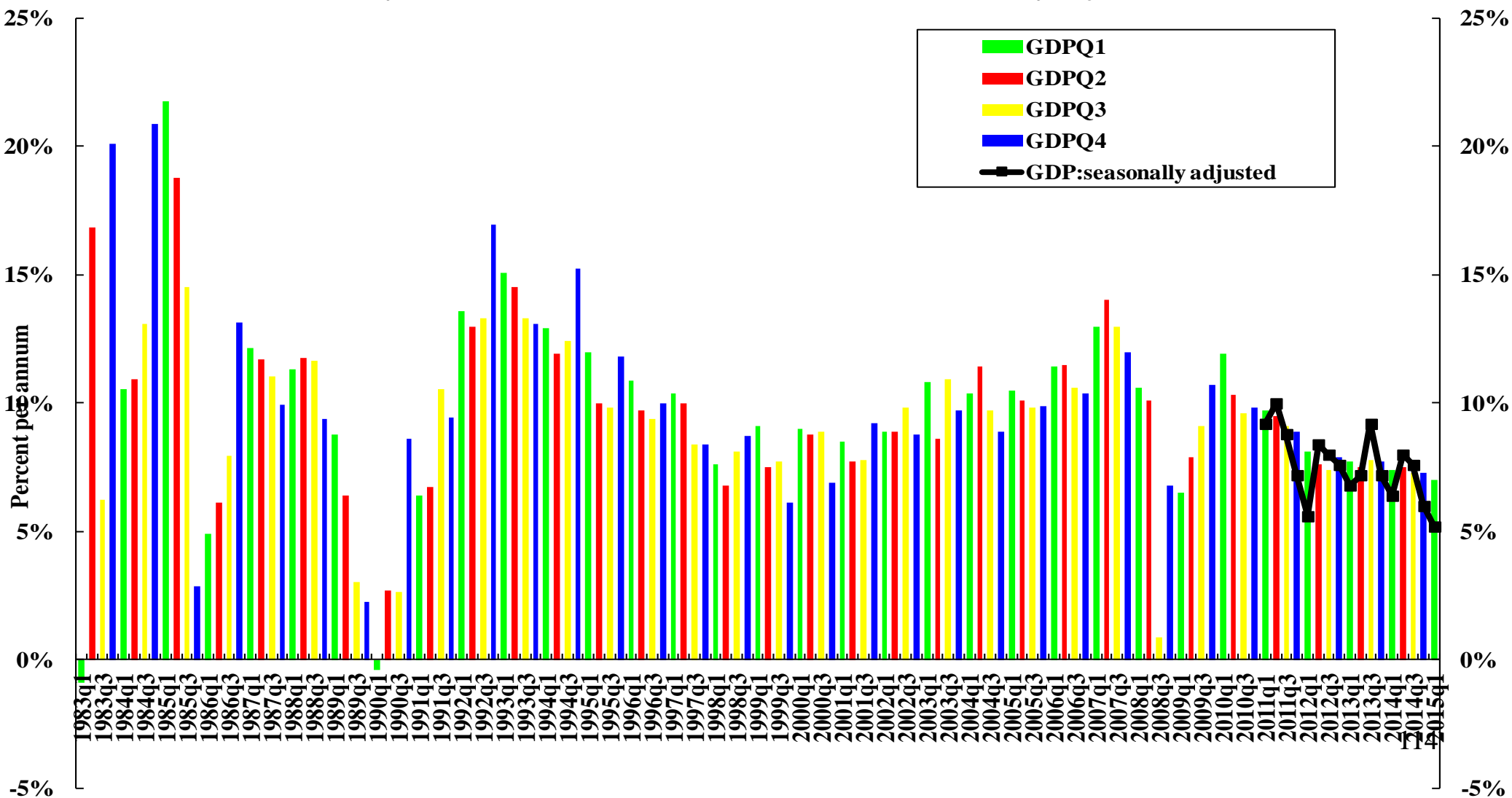
Quarterly Rates of Growth of Chinese Real GDP, Y-o-Y

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



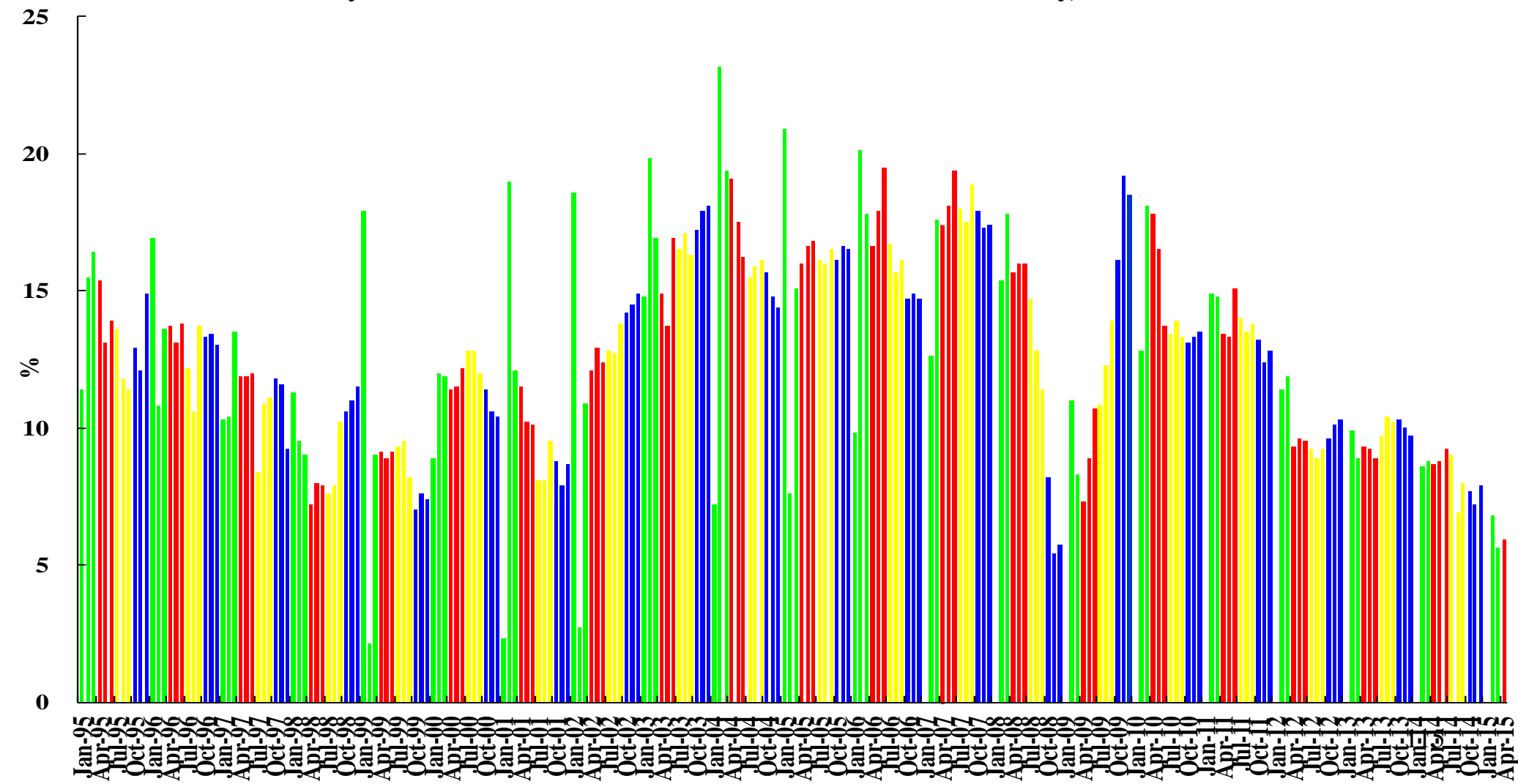
Quarterly Rates of Growth of Chinese Real GDP, Y-o-Y and Seasonally Adjusted

Quarterly Rates of Growth of Chinese Real GDP, Y-o-Y and Seasonally Adjusted



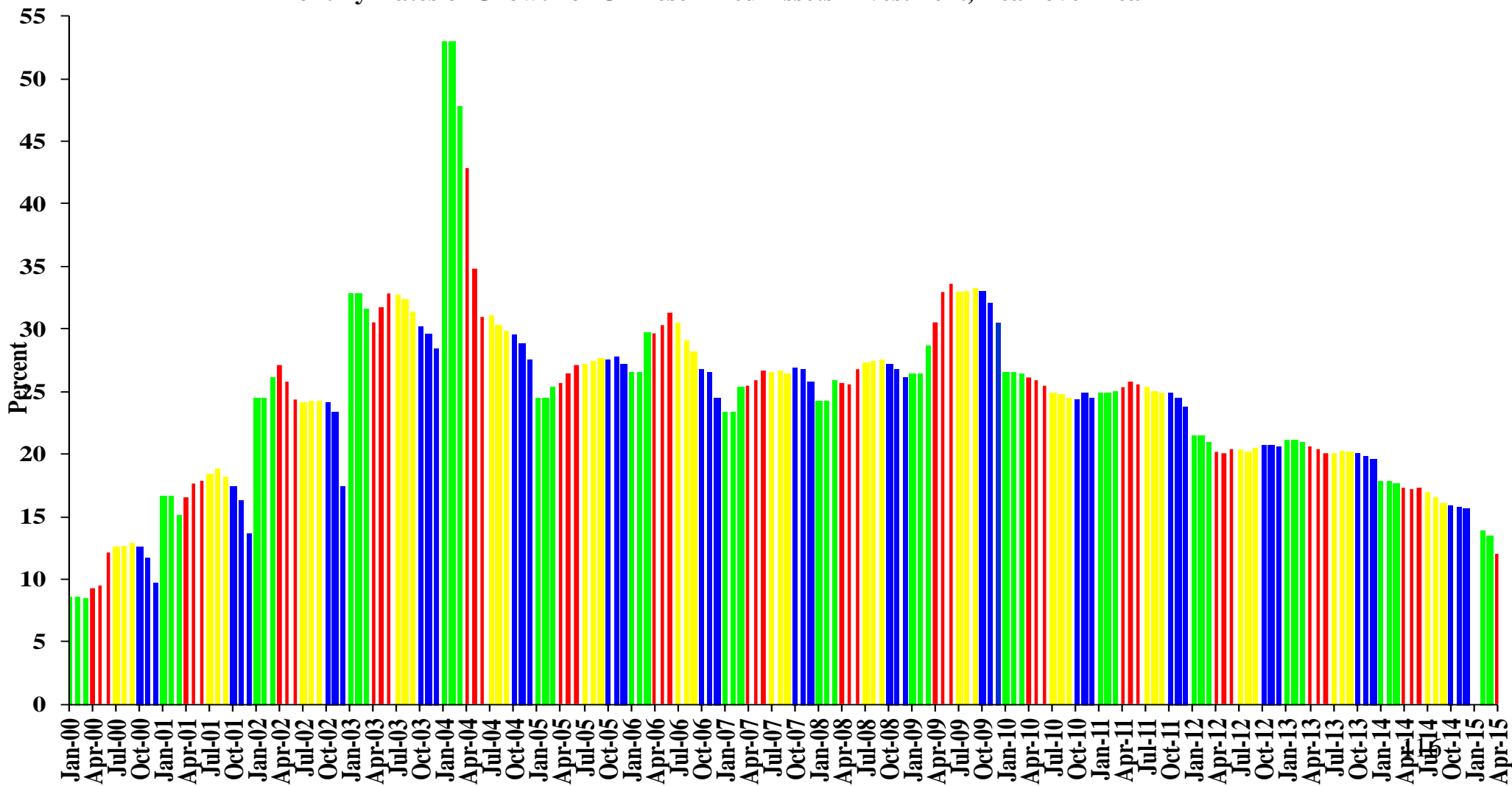
Monthly Rates of Growth of Real Value-Added of the Chinese Industry, Y-o-Y

Monthly Rates of Growth of Real Value-Added of the Chinese Industry, Year-over-Year



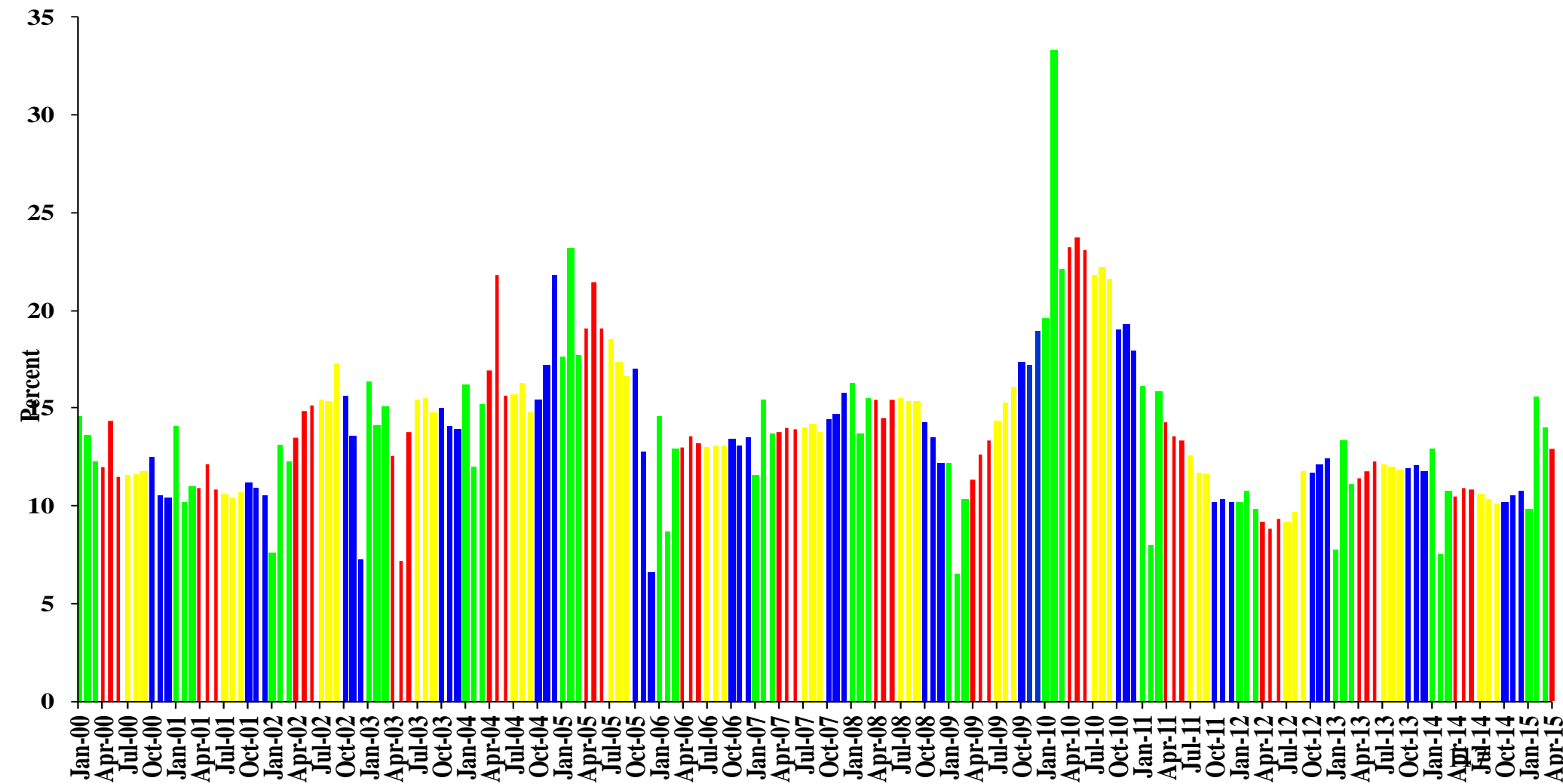
Monthly Rates of Growth of Chinese Fixed Assets Investment, Y-o-Y

Monthly Rates of Growth of Chinese Fixed Assets Investment, Year-over-Year



Monthly Rates of Growth of Chinese Real Retail Sales, Y-o-Y

Monthly Rates of Growth of Chinese Real Retail Sales since, Year-over-Year



The Long-Term Economic Outlook

- ◆ Going forward, will the Chinese economy continue to grow at close to 10 percent per annum in the future? The short answer is no for many reasons. The target rate of growth under the “New Normal” is likely to be around 7 percent per annum.
- ◆ However, it is important to realise that because the Chinese economy is now much bigger--a 7% rate of growth today will generate an absolute increase in real GDP equivalent to what a 14% rate of growth would have done ten years ago.
- ◆ On the supply side, the Chinese economy will still have strong economic fundamentals--a high domestic saving rate, abundant labour, and a huge domestic market that enables the realisation of economies of scale—for a couple of decades. Moreover, advances in the information and communication technology has enhanced the positive effects of economies of scale even further.
- ◆ In time, Chinese economic growth will also be driven by innovation and technical progress in addition to the growth in tangible inputs.

The Long-Term Economic Outlook

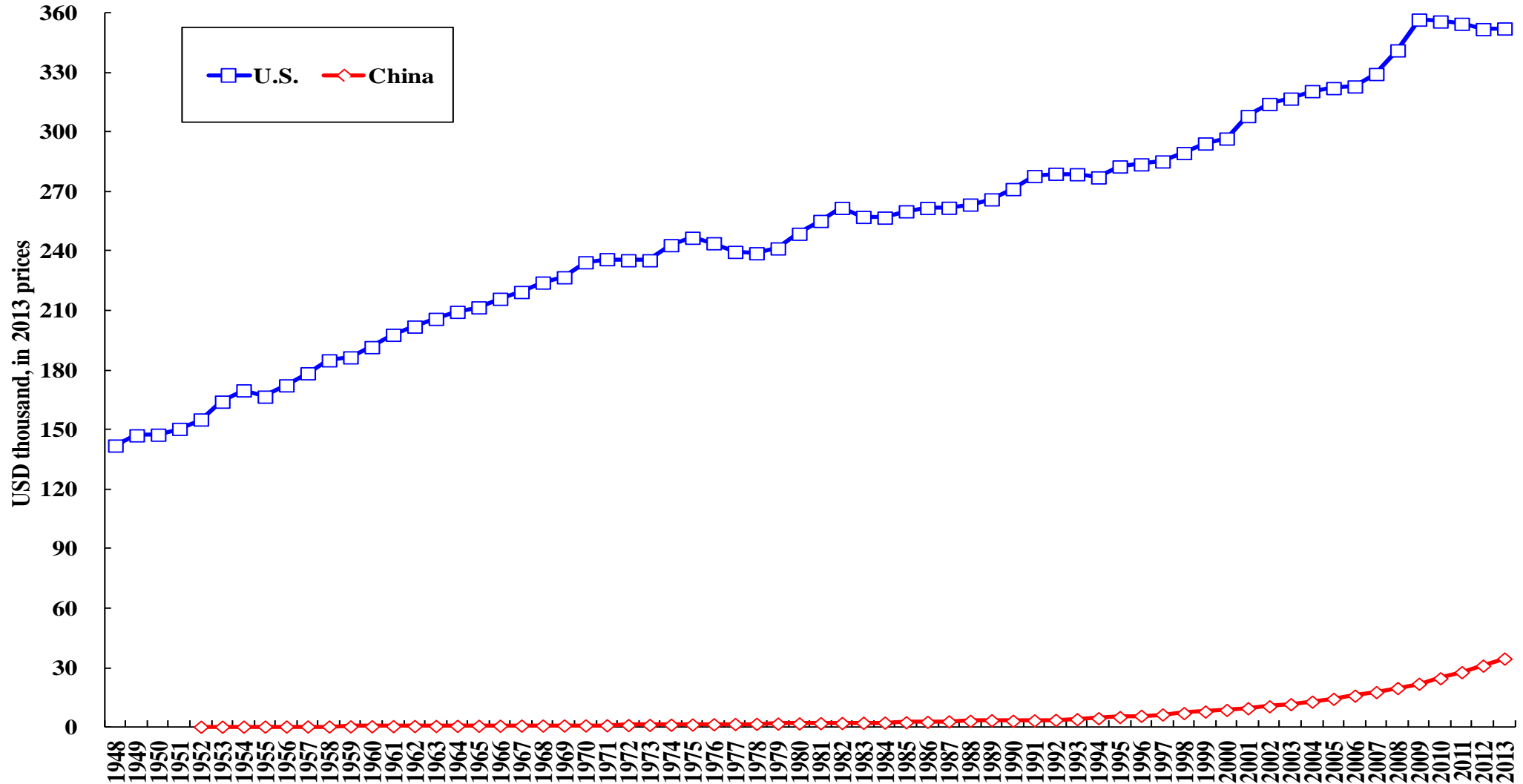
- ◆ On the demand side, Chinese economic growth will be driven by the growth of its own internal demand, consisting of public infrastructural investment (for example, high-speed railroads and urban mass transit systems, public wifi towers, affordable housing), public goods consumption (education, health care, elderly care, and environmental control, preservation and restoration—clean air, water and soil) as well as household consumption, rather than the growth of exports, or fixed investment in the manufacturing sector, or residential real estate.

The Long-Term Economic Outlook

- ◆ In the medium term, say in the next three to five years, economic stimulus is unlikely to be inflationary because of the excess manufacturing capacities already in place, especially if the economic stimulus is carefully targeted.
- ◆ In the longer term, there is still a great deal of room for Chinese GDP to grow. There is still a significant supply of surplus labour. Both the tangible capital and the intangible capital per unit labour in China are still relatively low compared to the developed economies. Moreover, there is substantial scope for the further growth of human capital and R&D capital.

Tangible Capital per Unit Labour, 2013 US\$, China and the U.S.

Tangible Capital per unit Labor of China and the U.S., in 2013 prices

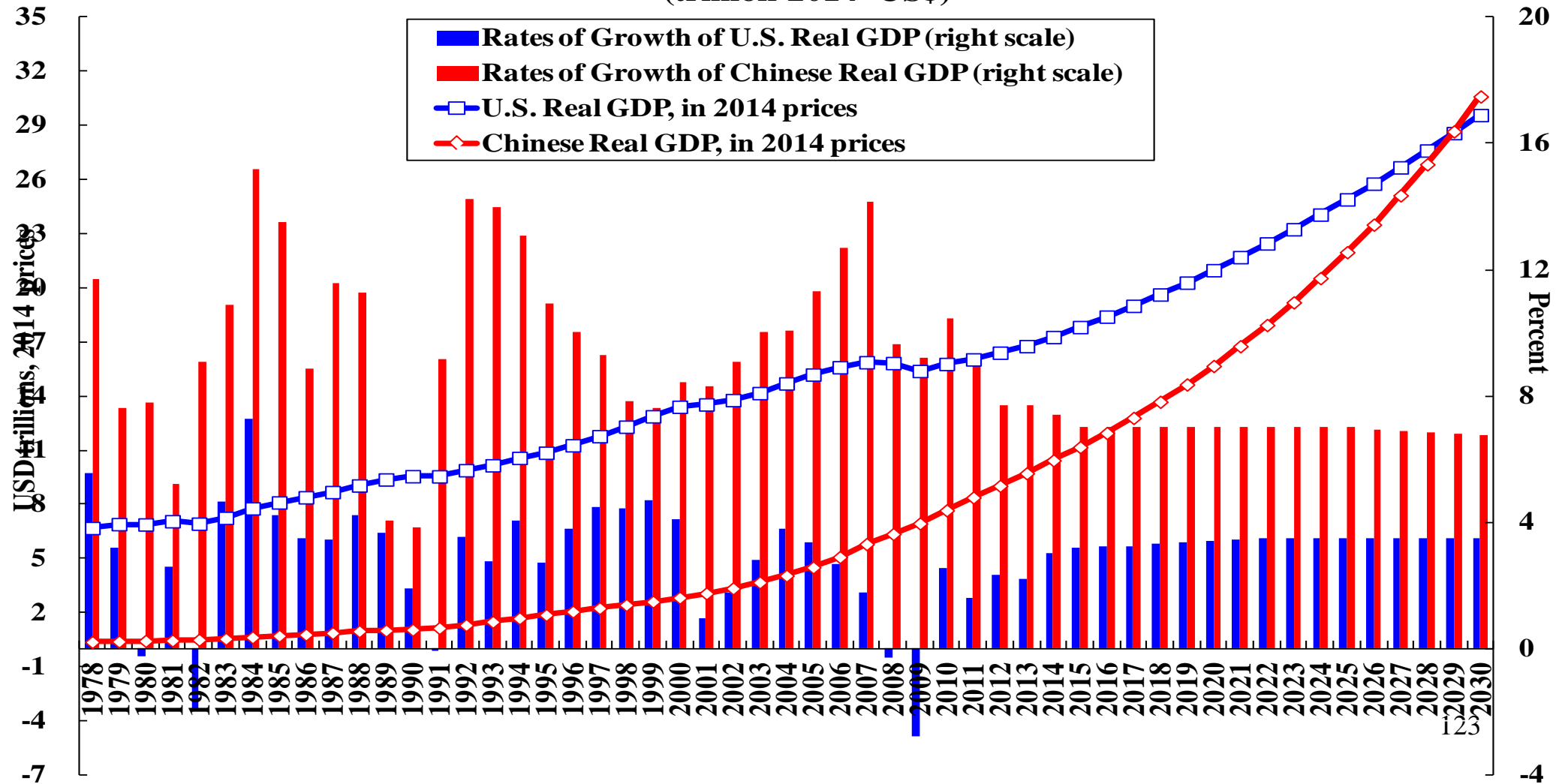


The Long-Term Economic Outlook

- ◆ China has also been gradually changing from its role as the World's factory to the World's new growth market. It is already the World's largest exporting country and is on its way to becoming the largest importing country in a couple of years.
- ◆ The Chinese trade surplus vis-a-vis the World has been declining and will continue to decline until Chinese international trade is approximately balanced.

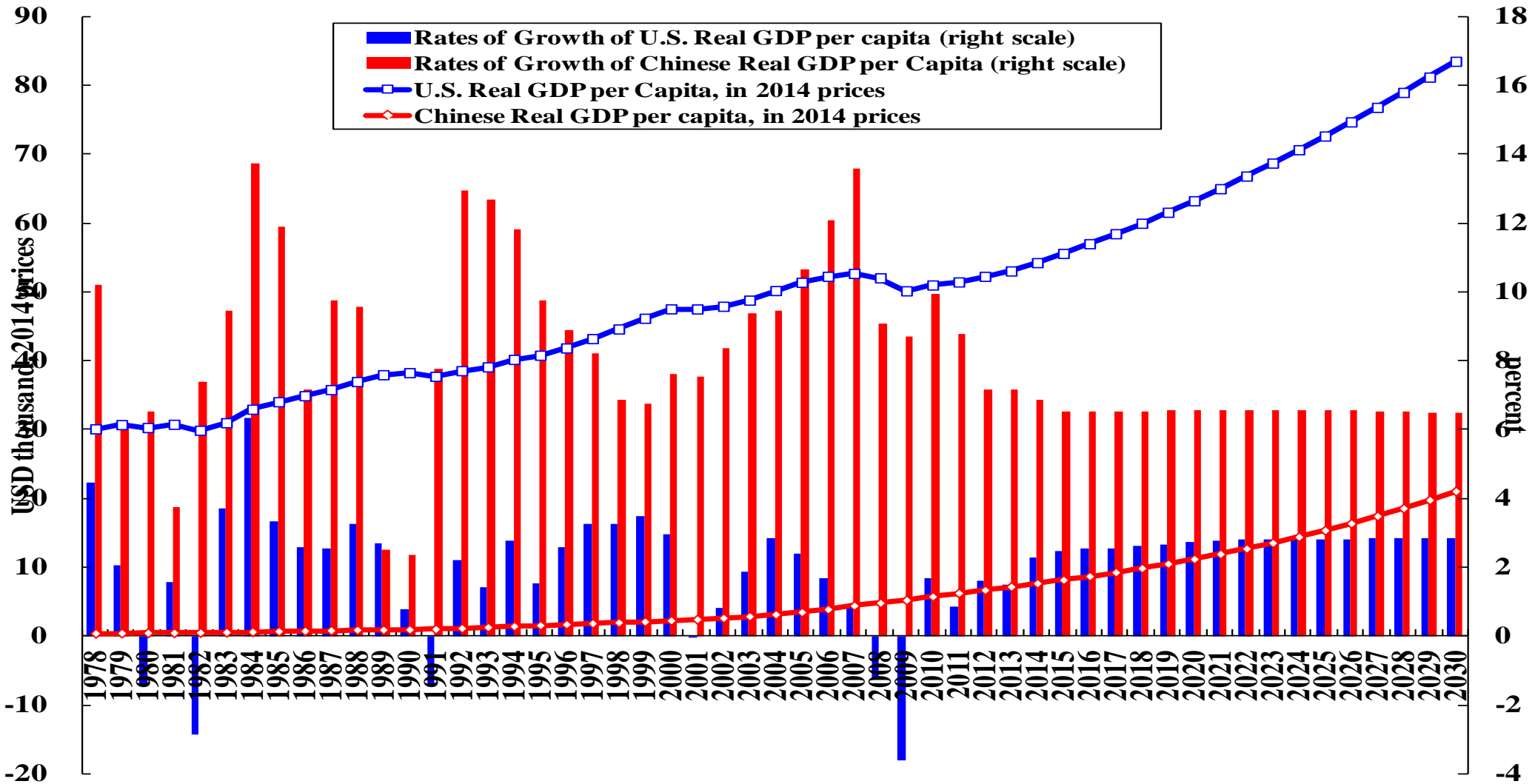
Actual and Projected Chinese and U.S. Real GDPs and Their Rates of Growth

Actual and Projected Chinese and U.S. Real GDPs and Their Rates of Growth
(trillion 2014 US\$)



Actual and Projected Chinese and U.S. Real GDP per Capita's and Rates of Growth

Actual and Projected Chinese and U.S. Real GDP per Capita and Their Rates of Growth
(thousand, 2014 US\$)



Concluding Remarks

- ◆ The highly successful experience of Chinese economic growth over the past 37 years (as well as those of other East Asian economies) strongly reaffirm the fundamental importance of having and maintaining a high investment rate, enabled by a high national savings rate, and surplus labour.
- ◆ In addition, the size of the Chinese domestic economy is a favourable factor allowing the ready realisation of economies of scale and reducing vulnerability to external disturbances.
- ◆ However, these favourable factors alone were not sufficient, as the Chinese economy did not experience sustained economic growth between 1949 and 1978 even with the presence of all of these favourable conditions.

Concluding Remarks

- ◆ Economic reform and opening allowed the realisation of the huge surplus potential output, helped to enhance and assure the efficiency of the Chinese economy and facilitated technology transfer from abroad.
- ◆ It is the unique achievement of China that in its transition from a closed centrally planned economy to an open market economy, it was able to use a strategy of “reform without losers”--making sure that no one would be worse off. Such a strategy maximised support, minimised opposition and preserved social stability. It led to win-win for all. As a result, the Chinese transition was smooth, stable and successful.

Concluding Remarks

- ◆ Chinese economic growth during the past 37 years can be attributed to the growth of tangible inputs—tangible capital and labour, and in particular, tangible capital—rather than the growth in intangible capital or technical progress, just as the past economic growth of other East Asian economies at a similar stage of economic development.
- ◆ Chinese economic growth can be sustained longer than in other East Asian economies principally because of the size of the Chinese economy and its surplus labour and more recently its surplus capital.

Concluding Remarks

- ◆ Continuing Chinese economic growth going forward will depend mostly on the growth of internal demand (public infrastructural investment, public goods consumption (education, health care and environmental control, preservation and restoration) and household consumption) and not on exports and not on manufacturing capacity expansion in the existing industries.
- ◆ In the longer run, Chinese economic growth will make a transition from tangible inputs driven to intangible inputs driven, or innovation driven.

Concluding Remarks

- ◆ Given the huge excess capacities in the Chinese manufacturing industries, in the time frame of the next five to ten years, Chinese GDP, as mentioned above, will not be supply-constrained but will be primarily determined by aggregate demand. China should have no problem achieving a rate of real economic growth of around 7%.
- ◆ Beyond that, on the basis of its strong economic fundamentals, China should also be able to continue to grow at an average annual rate of at least 7% for the following decade, more or less independently of what happens in the rest of the World.
- ◆ The goal of doubling real GDP per capita by 2020, declared in 2013, should be readily achievable.