

The Chinese Economy: Boom or Bust?

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**The Fifth Annual N. T. WANG Distinguished Lecture
Chazen Institute and Weatherhead East Asian Institute
Columbia University
New York, 8th October 2014**

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Introduction

- ◆ China has made tremendous progress in its economic development since it began its economic reform and opened to the World in 1978. China is currently the fastest growing economy in the World—averaging 9.8% per annum over the past 36 years. It is historically unprecedented for an economy to grow at such a high rate over such a long period of time.
- ◆ Between 1978 and 2013, Chinese real GDP grew more than 26 times, from US\$356.5 billion to US\$9.32 trillion (in 2013 prices), to become the second largest economy in the World, after the U.S. By comparison, the U.S. GDP of approximately US\$16.8 trillion was less than 2 times Chinese GDP in 2013.

Introduction

- ◆ In the following chart the performance of the Chinese economy before and after its economic reform began in 1978 is compared.
- ◆ It is clear that the Chinese economy has done much better in almost every dimension—real GDP, real consumption, exports and imports—under the economic reform, on both an aggregate and a per capita basis. The only economic indicator that has performed worse is the rate of inflation, which rose from 0.5% per annum in the pre-reform period to over 5% per annum in the post-reform period.

Key Performance Indicators Before and After Chinese Economic Reform in 1978

	Growth Rates	
	percent per annum	
	Period I	Period II
	1952-1978	1978-2013
Real GDP	6.15	9.82
Real GDP per Capita	4.06	8.74
Exports	9.99	16.76
Imports	9.14	15.98
Inflation Rates (GDP deflator)	0.50	5.19
	1952-1978	1978-2013
Real Consumption	5.05	9.49
Real Consumption per Capita	2.99	8.39

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.
- ◆ Between 1978 and 2013, Chinese real GDP per capita grew 18.5 times, from US\$370 to US\$6,850.5 (in 2013 prices).
- ◆ By comparison, the U.S. GDP per capita of approximately US\$53,086 was 7.7 times Chinese GDP per capita in 2013.

Introduction

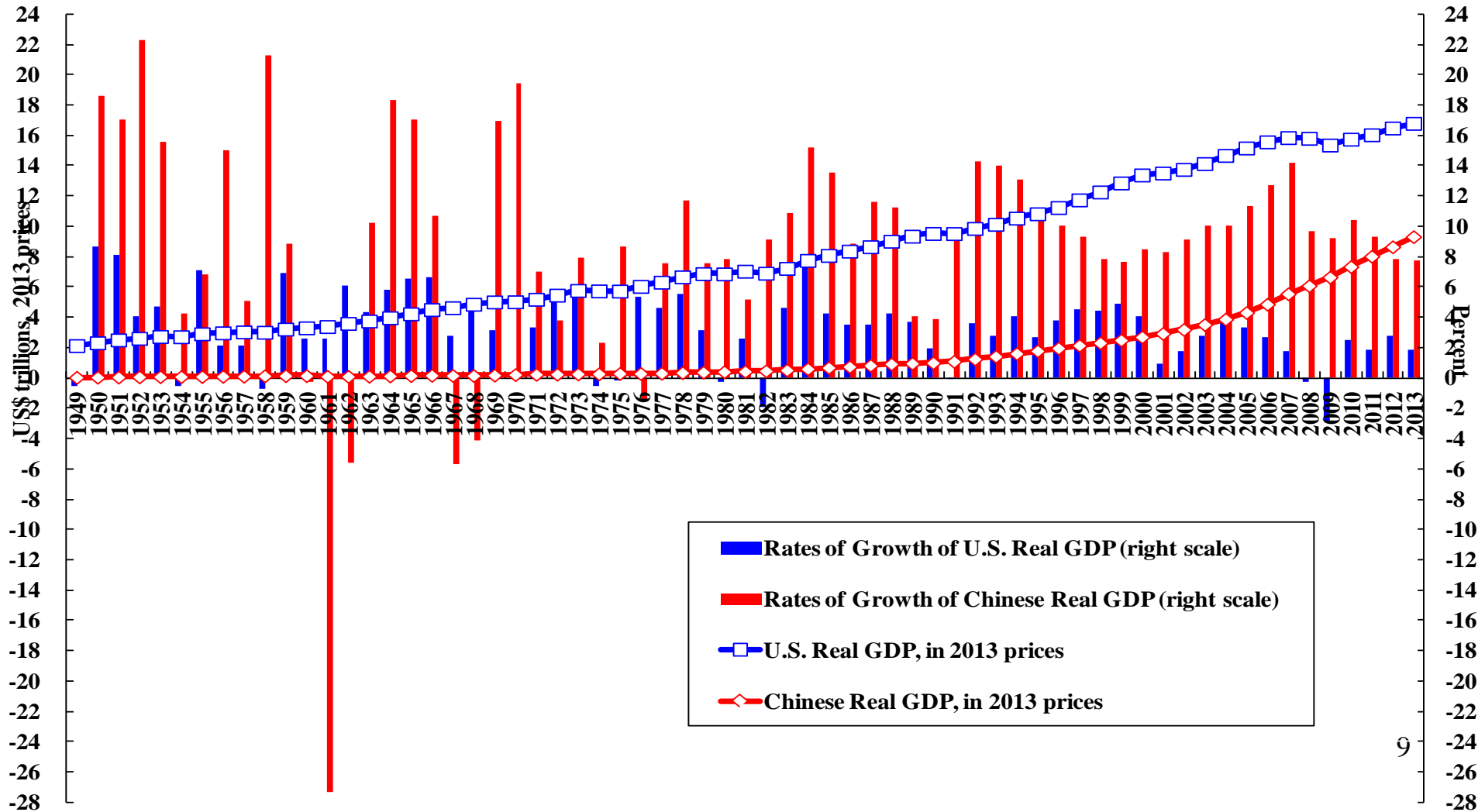
- ◆ Why was the Chinese economic reform and opening to the World so hugely successful? Of course, the implementation of the correct economic policies and measures by the Chinese Government, led by the Chinese Communist Party, is an important reason.
- ◆ However, we shall also examine the Chinese economic fundamentals as well as the Chinese initial conditions to analyse why the adopted policies and measures were so effective.

China in the Global Economy

- ◆ It is useful to compare the growth of Chinese and U.S. real GDP in both aggregate and per capita terms (see the following charts).
- ◆ The red and blue lines represent the levels of real GDP of China and the U.S. respectively. The red and blue columns represent the annual rates of growth of real GDP of China and the U.S. respectively.
- ◆ Chinese real GDP lagged behind U.S. real GDP by a large margin. In 1978, U.S. real GDP (US\$6.7 trillion in 2013 prices) was 18.7 times Chinese real GDP and U.S. real GDP per capita (US\$30,046) was 81 times Chinese real GDP per capita.

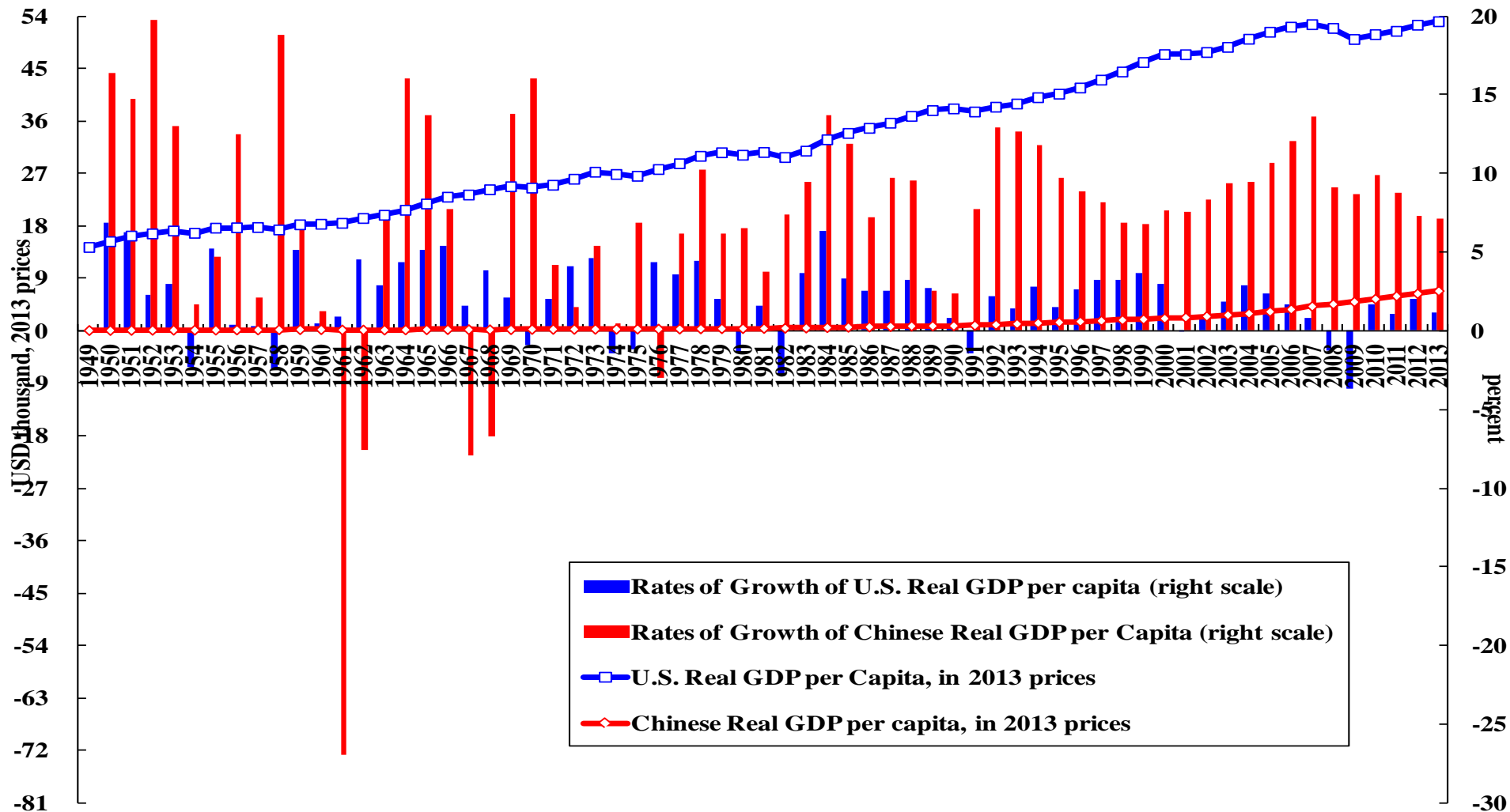
Real GDPs and Their Annual Rates of Growth: China & the U.S. (2013 US\$): 1949-present

The Real GDP and Its Annual Rates of Growth of China and the U.S.
(trillion 2013 US\$)



Real Chinese and U.S. GDP per Capita in US\$ Since 1949 (2013 Prices)

Real GDP per Capita and their Annual Rates of Growth of China and the U.S.,
(thousand, 2013 US\$)

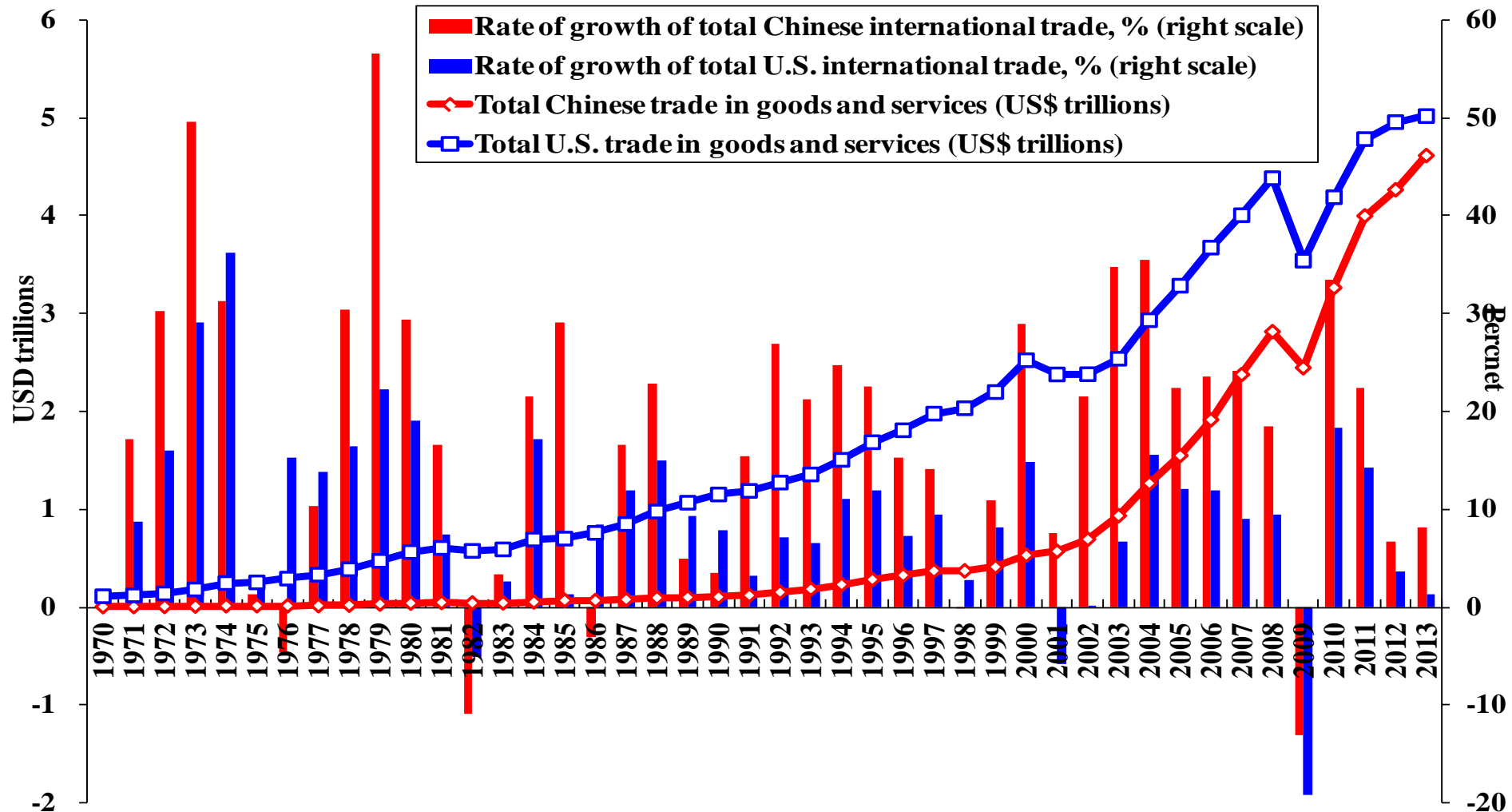


China in the Global Economy

- ◆ Chinese international trade has grown very rapidly since 1978, and the rate accelerated after China acceded to the World Trade Organisation (WTO) in 2001. China has become the second largest trading nation in the World in terms of the total value of international trade in goods and services (US\$4.61 trillion in 2013), just after the U.S. (US\$5.02 trillion).

International Trade & Its Rate of Growth: A Comparison of China and the U.S. since 1970

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



China in the Global Economy

- ◆ The most important development in the global economy during the last three and a half decades is the reform and opening of the Chinese economy and its participation in the World.
- ◆ As a result, 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 within East Asia from Japan to China.

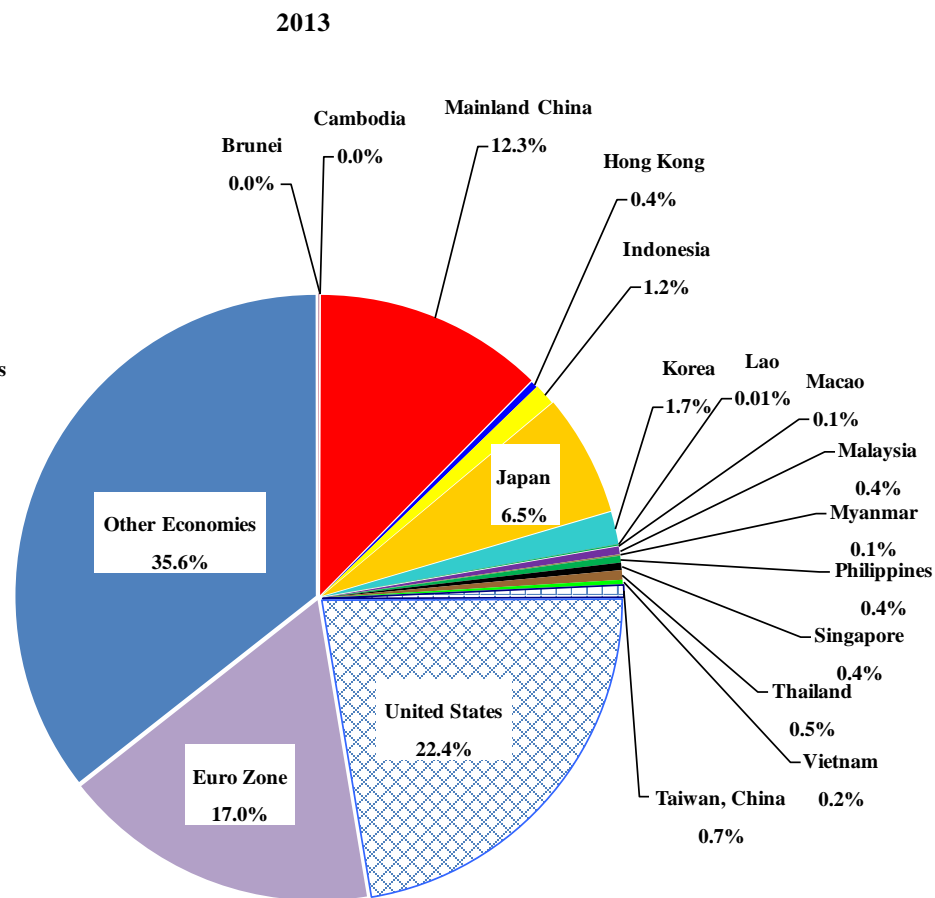
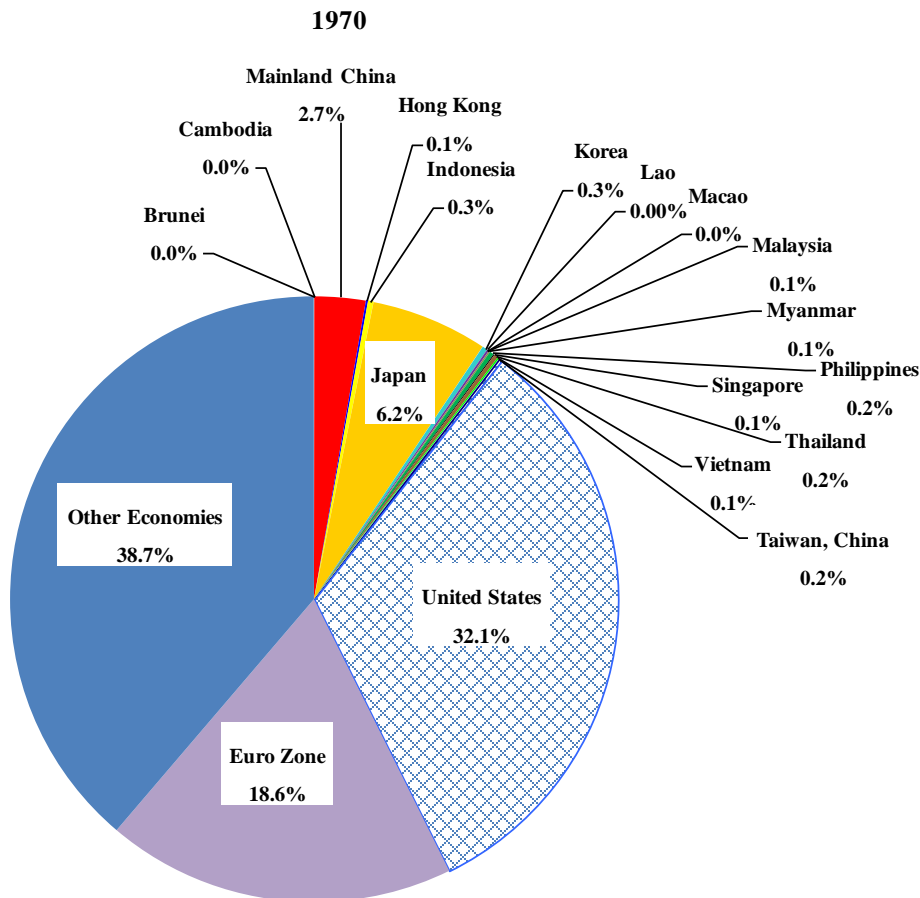
China in the Global Economy

- ◆ 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)”.¹⁴

China in the Global Economy

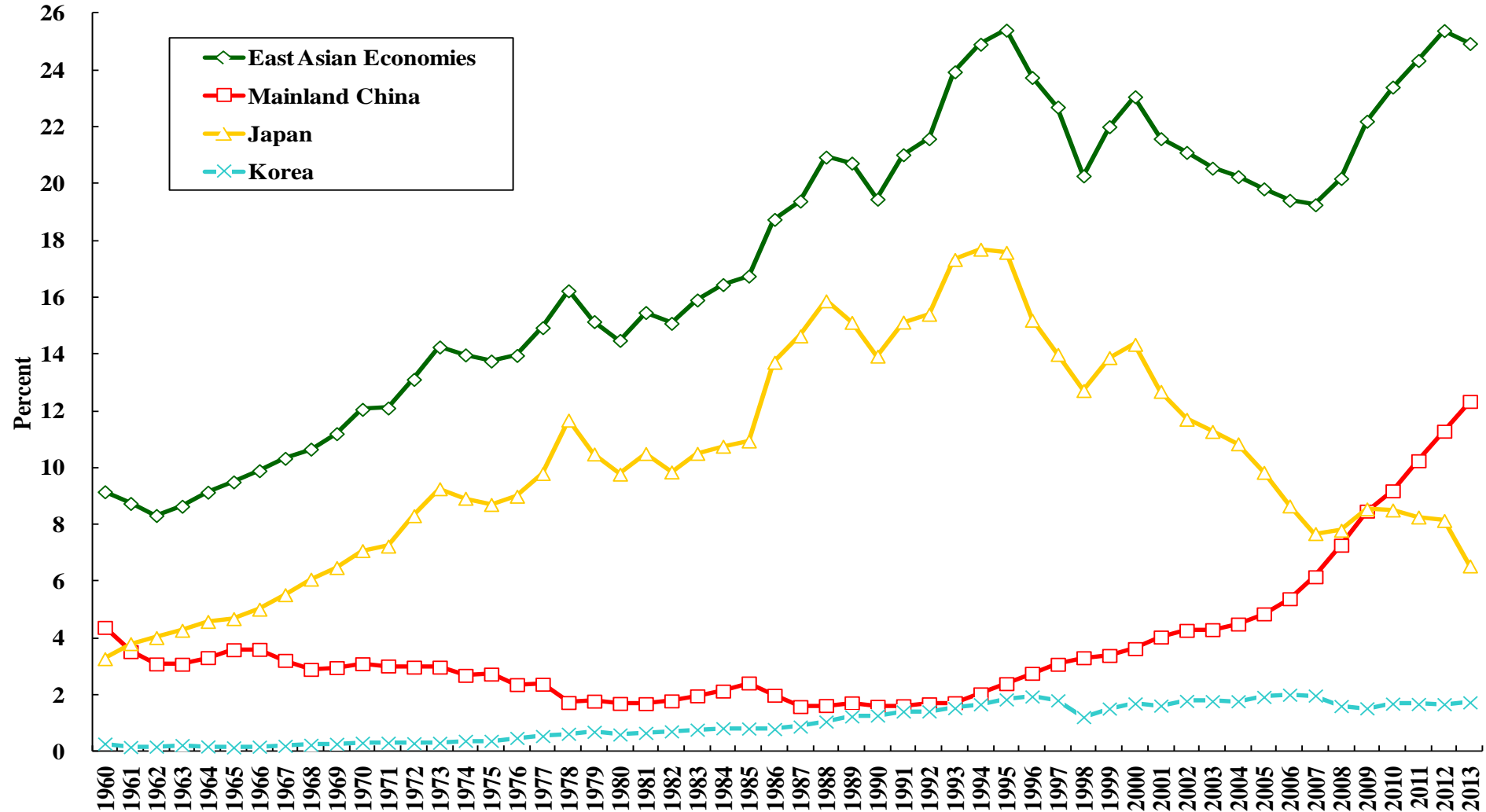
- ◆ By 2013, the share of United States and Western Europe in World GDP has declined to approximately 45% whereas the share of East Asia has risen to around 25%.
- ◆ The Japanese share of World GDP declined from a peak of almost 18% in the mid-1990s to 6.5% in 2013 while the Mainland Chinese share of World GDP rose from 2.7% in 1970 and less than 4% in 2000 to over 12.3% in 2013.

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



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

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



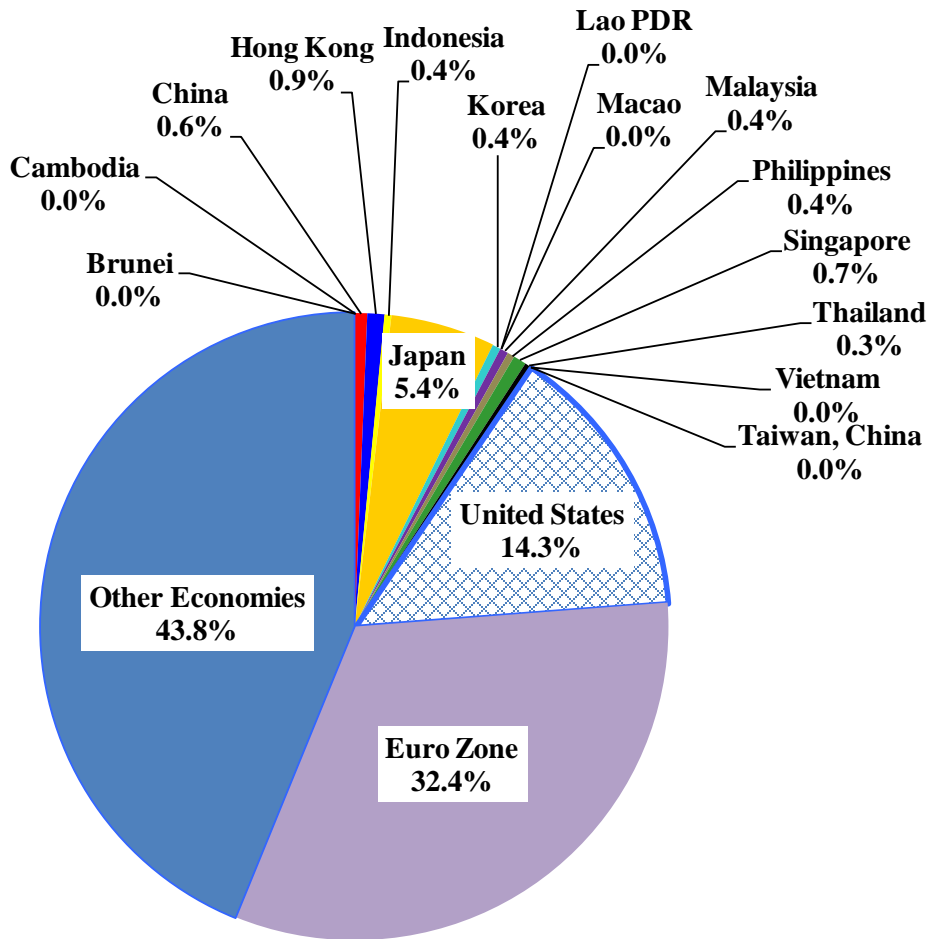
China in the Global Economy:

International Trade

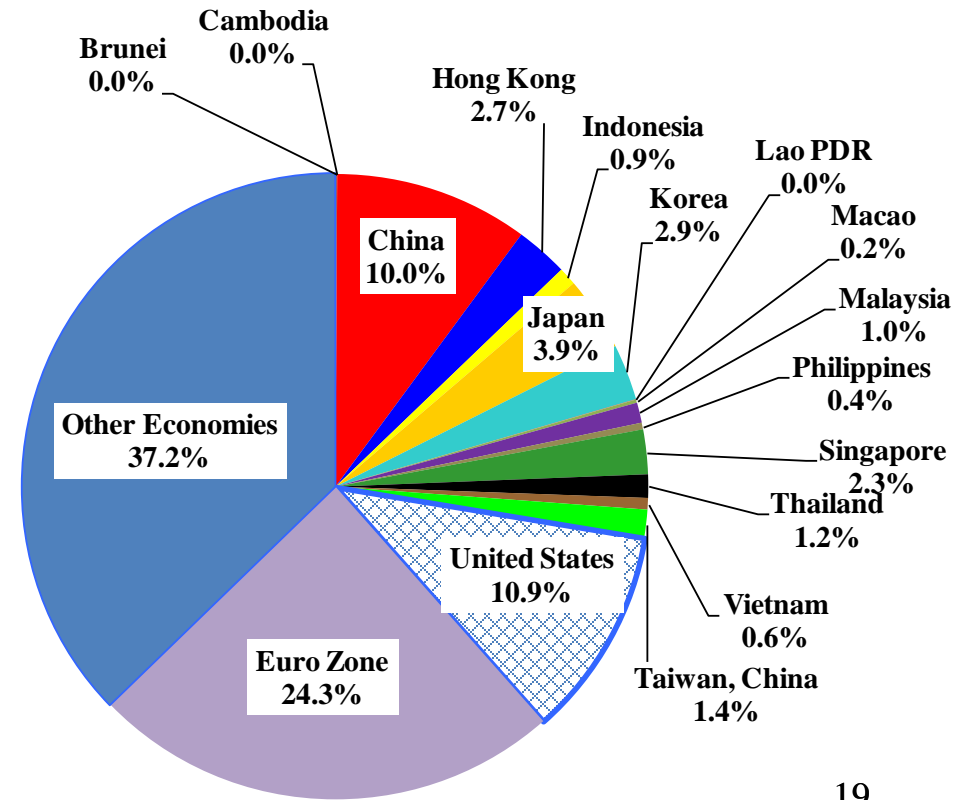
- ◆ In 1970, the United States and Western Europe together accounted for almost 60% of World trade in goods and services. By comparison, East Asia accounted for 9.5% of World trade.
- ◆ By 2013, the share of United States and Western Europe in World trade has declined to 41.4% whereas the share of East Asia has risen to almost 27.6%.
- ◆ The Chinese share of World trade rose from 0.63% in 1970 to 10.0% in 2013.
- ◆ Chinese international trade also accounted for 40% of East Asian international trade in 2013. China runs a trade deficit with almost every other East Asian economy.

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

1970

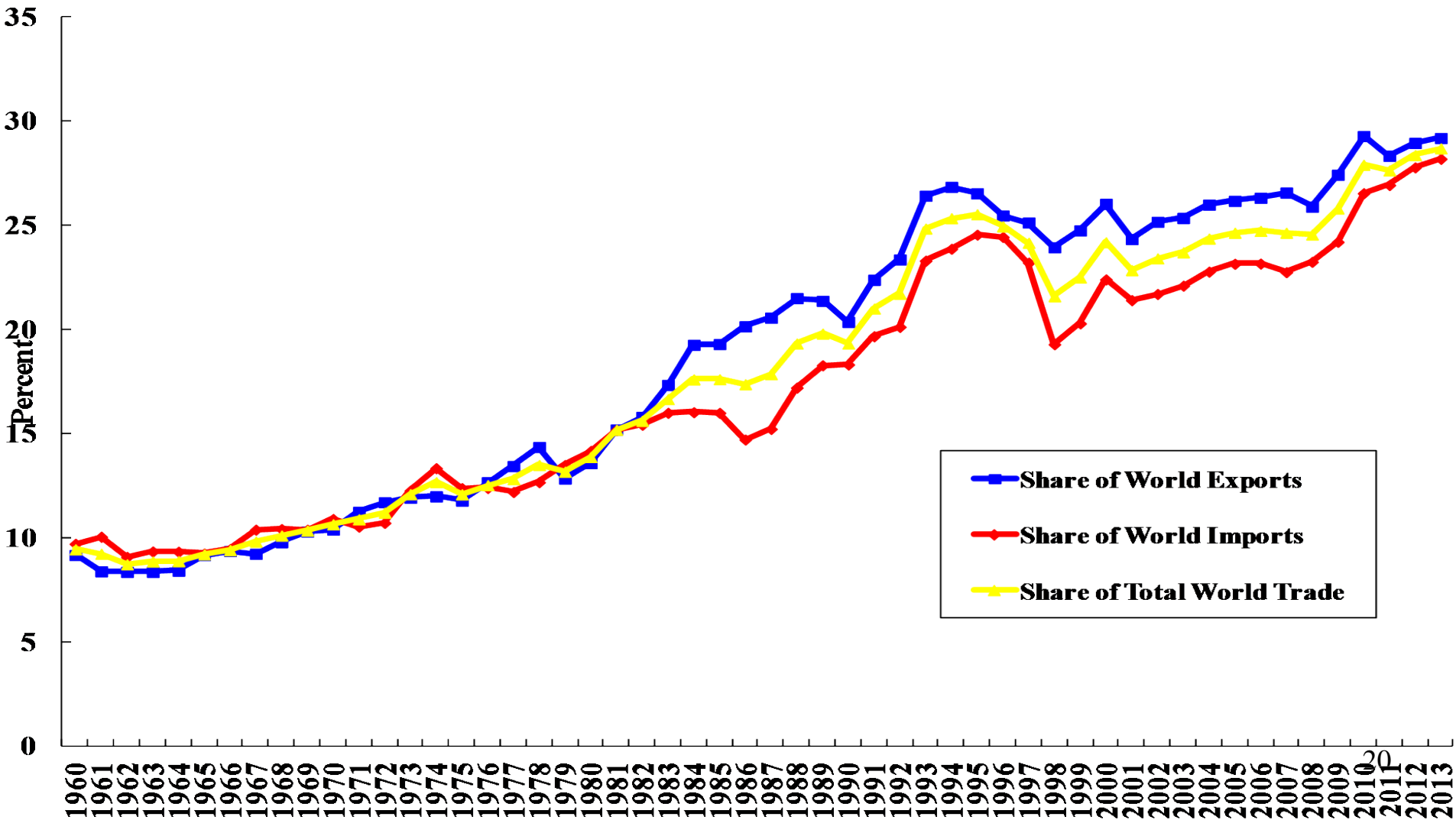


2013



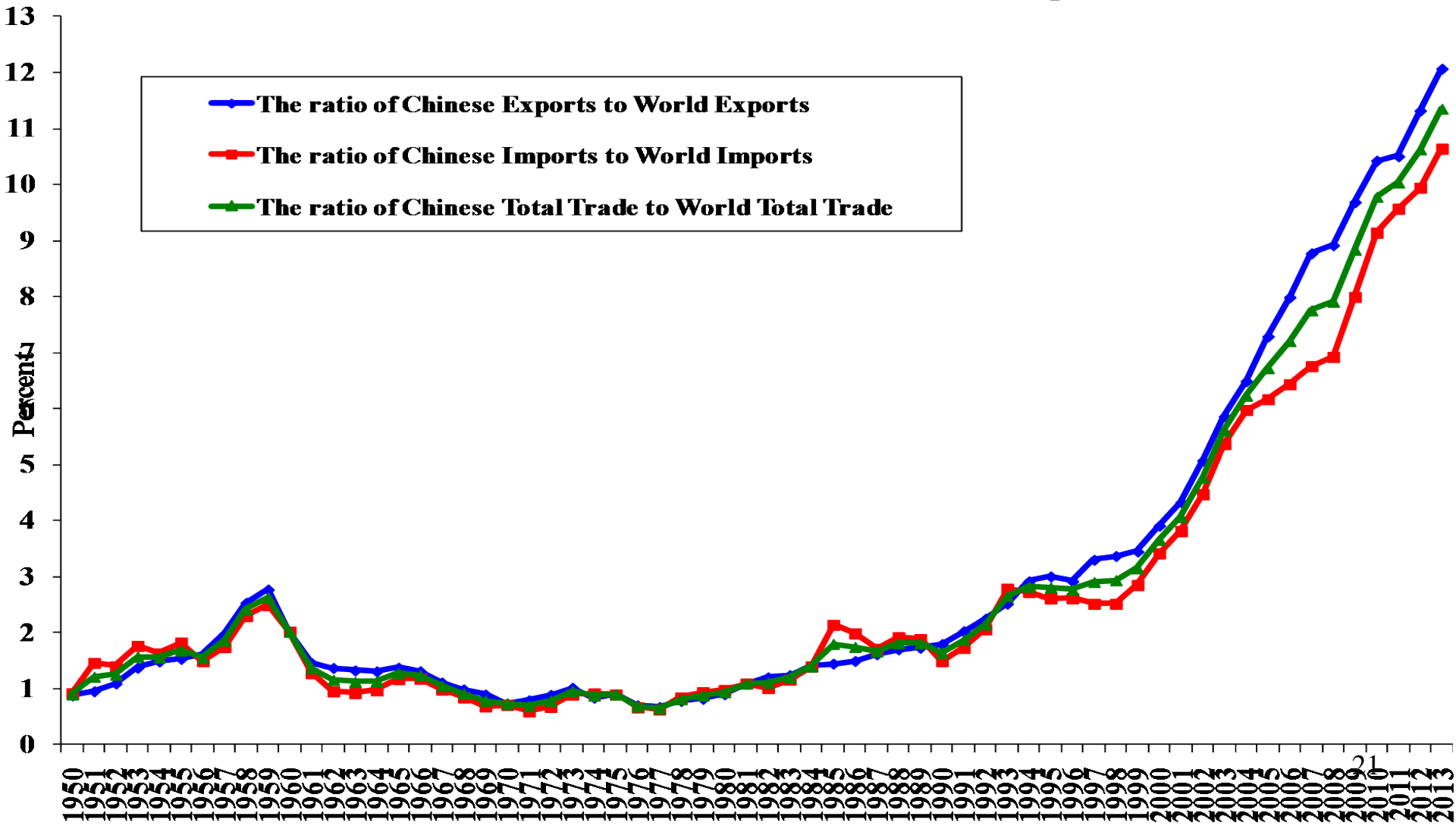
The Rising Share of East Asian Trade in Total World Trade, 1960-present

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



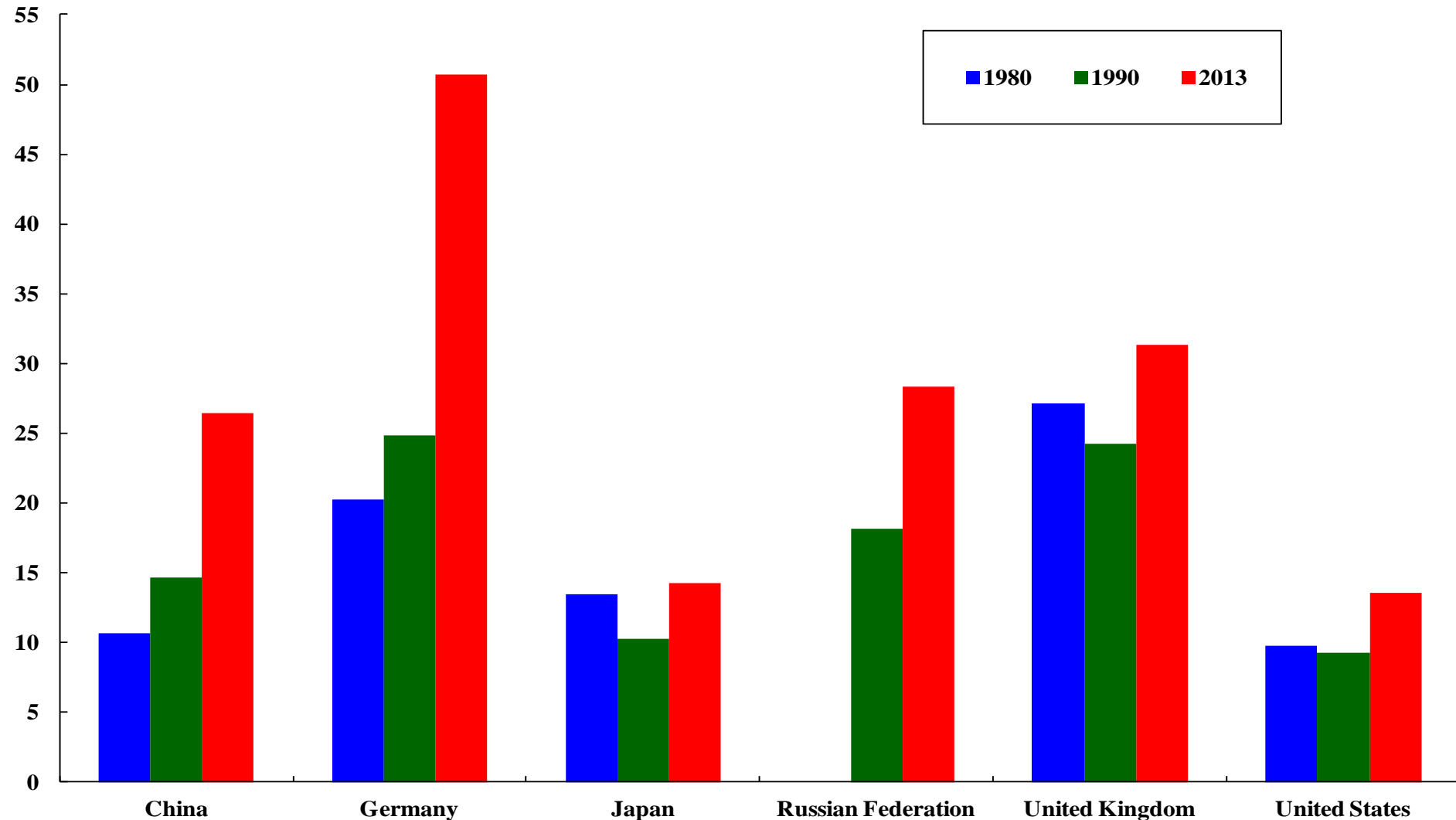
China in the Global Economy:

International Trade

- ◆ Contrary to the public impression, the ratio of Chinese exports to GDP is actually relatively low compared with other economies (see the following charts).
- ◆ Among large economies, only Japan and the U.S. have a lower share of exports in GDP than China. This is a reflection of the fact that China is a large continental economy, with relatively abundant diversified natural resources and a huge domestic market.
- ◆ Most of the East Asian economies are either export-oriented or were export-oriented as they began their processes of economic development. Their exports to GDP ratios are much higher than that of the Chinese economy.

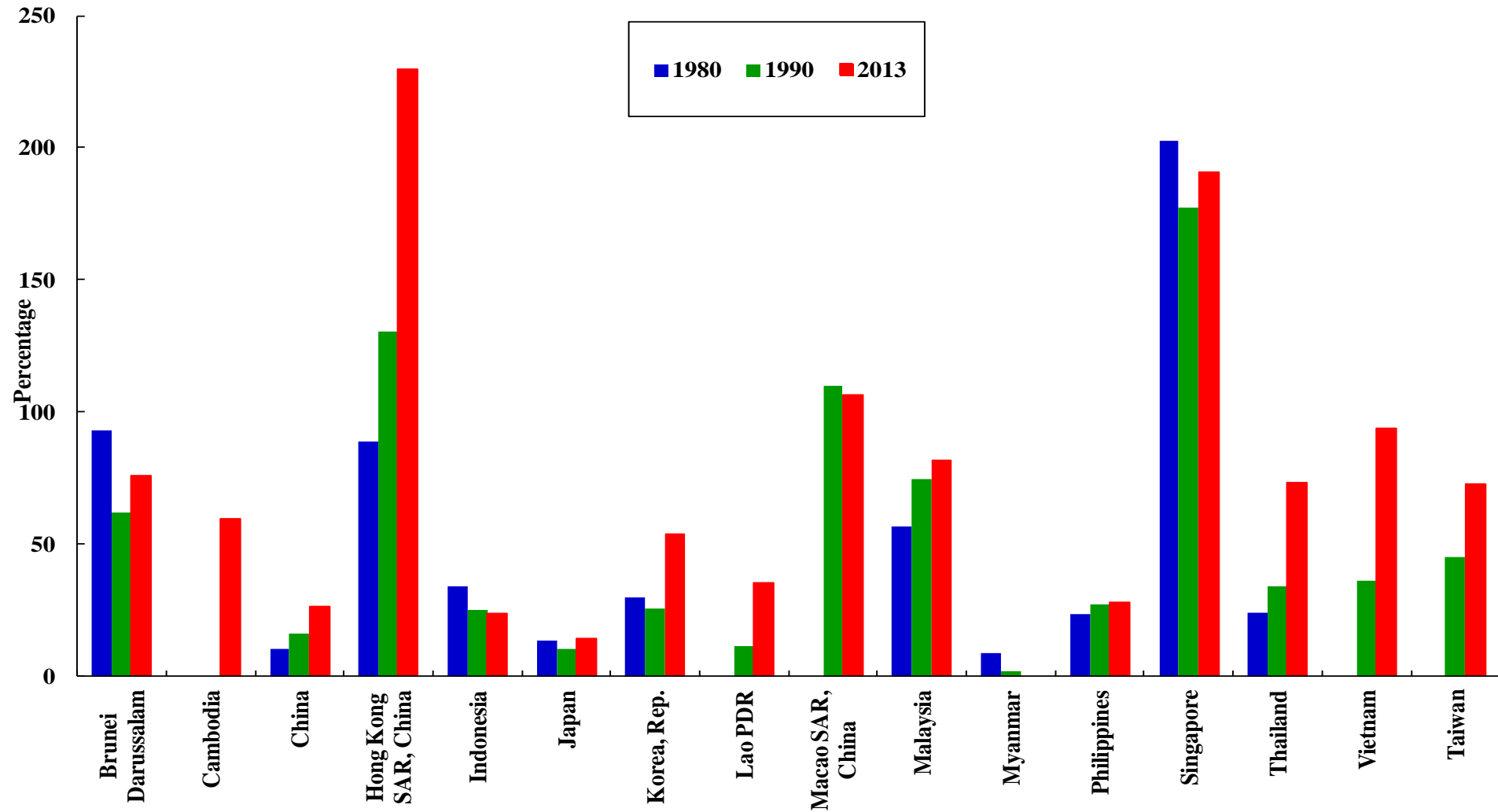
Exports of Goods and Services as a Share of GDP in Selected Economies

Exports of Goods and Services as a Share of GDP in Selected Economies



Exports of Goods and Services as a Share of GDP in East Asian Economies

Exports as a share of GDP of East Asian Economies



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

- ◆ The Chinese and also other East Asian economies have been steadily coming into their own and becoming less dependent on the developed economies of North America and Europe, enabling their “partial de-coupling” from them.
- ◆ Throughout the 2007-2009 global financial crises, as well as the subsequent European sovereign debt crisis, the East Asian economies and the economies of the BRICS countries (Brazil, Russia, India, China and South Africa) continued to do reasonably well.

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

- ◆ China, in particular, has been able to maintain its real rate of growth above 7.5% since 2007, lending credence to the “Partial De-Coupling Hypothesis”, that is, the Chinese and 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 gradual shift of the economic centre of gravity of the World from North America and Western Europe to Asia (including both East Asia and South Asia) over the past decades.
- ◆ However, the Chinese economy is not large enough to turn the World around. The idea of a G-2 group of countries consisting of only China and the United States leading the World economy is premature.

China in the Global Economy:

The Partial De-Coupling Hypothesis

- ◆ A particularly interesting development is the growth of intra-East Asian international trade. The share of East Asian exports destined for East Asia has risen to over 50% in the past decade. This is a sea-change compared to 30 years ago when most of the East Asian exports was destined for either the United States or Western Europe.
- ◆ Similarly, the share of East Asian imports originated from East Asia has remained around 45%.
- ◆ China has become the most important trading partner of almost all countries/regions in East Asia.

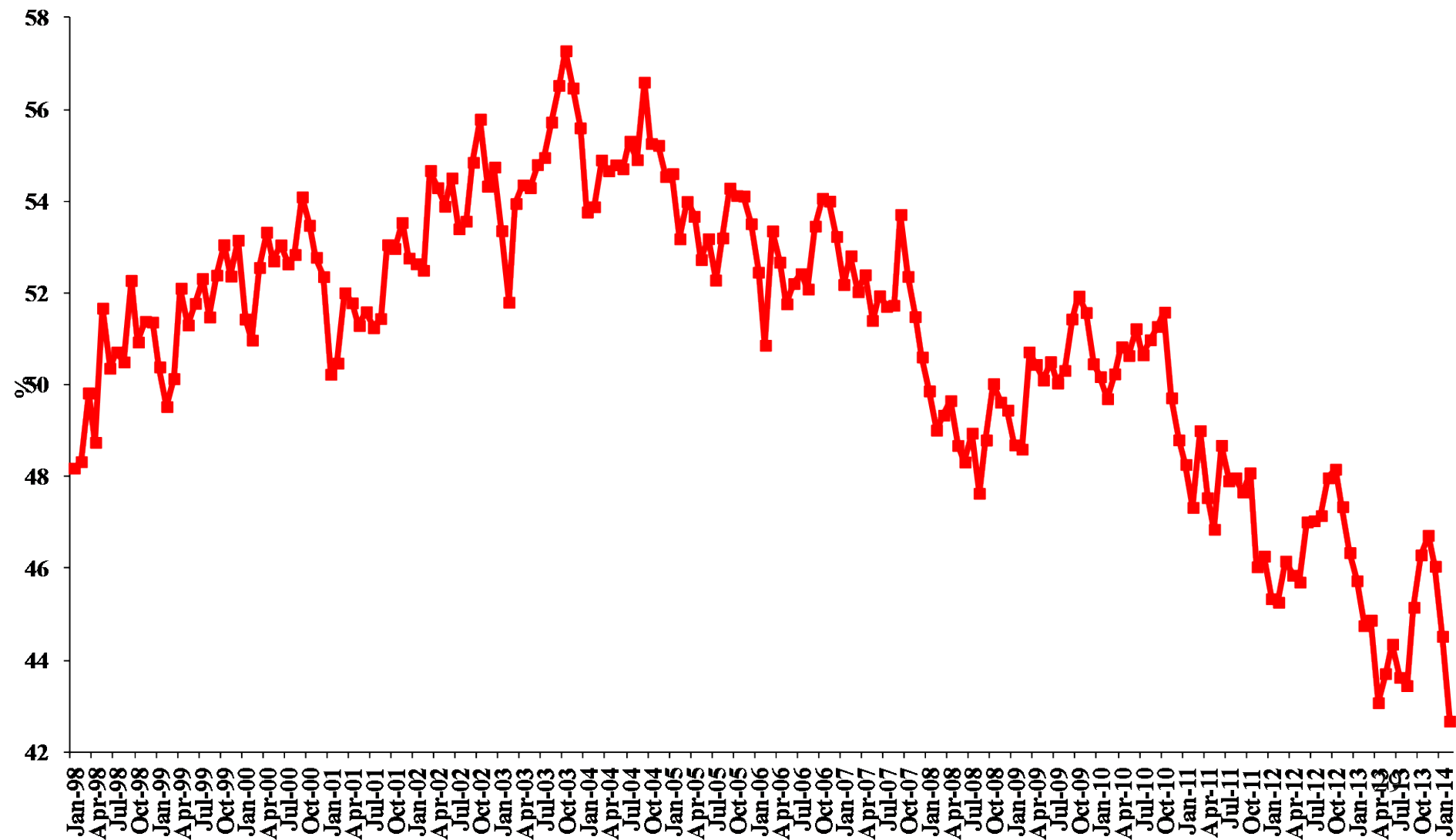
The Share of East Asian Exports Destined for East Asia

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 Imports Originated from East Asia



The Ranks of China as Trading Partner of East Asian Countries/Regions and Vice Versa

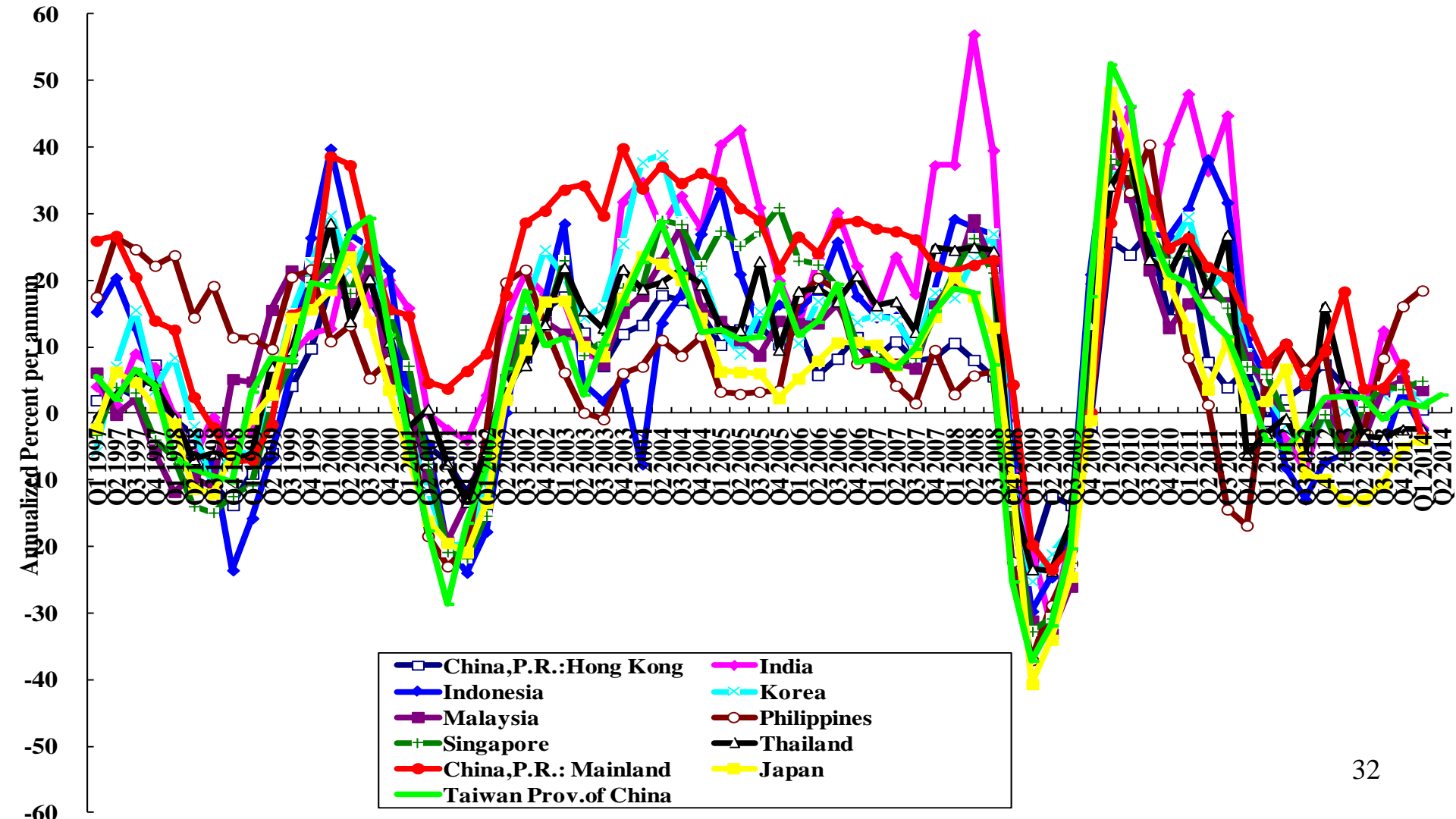
Country/Region	Chinese Rank as Trading Partner of Country/Region	Rank of Country/Region as Trading Partner of China
Brunei	3	104
Cambodia	16	78
Indonesia	1	16
Laos	2	90
Malaysia	1	8
Myanmar	1	51
Philippines	2	27
Singapore	1	11
Thailand	1	13
Vietnam	1	18
Japan	1	3
Republic of Korea	1	4
Hong Kong	1	2
Macau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

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

- ◆ Any doubt that the Chinese economy can be partially de-coupled from the World economy should be dispelled by an examination of the following three charts on the rates of growth of exports, imports and real GDP of East Asian economies (with the red line representing China). Even though Chinese exports and imports fluctuate like those of all the other East Asian economies, the rate of growth of real GDP of the Chinese economy has been relatively stable compared to those of the other East Asian economies.

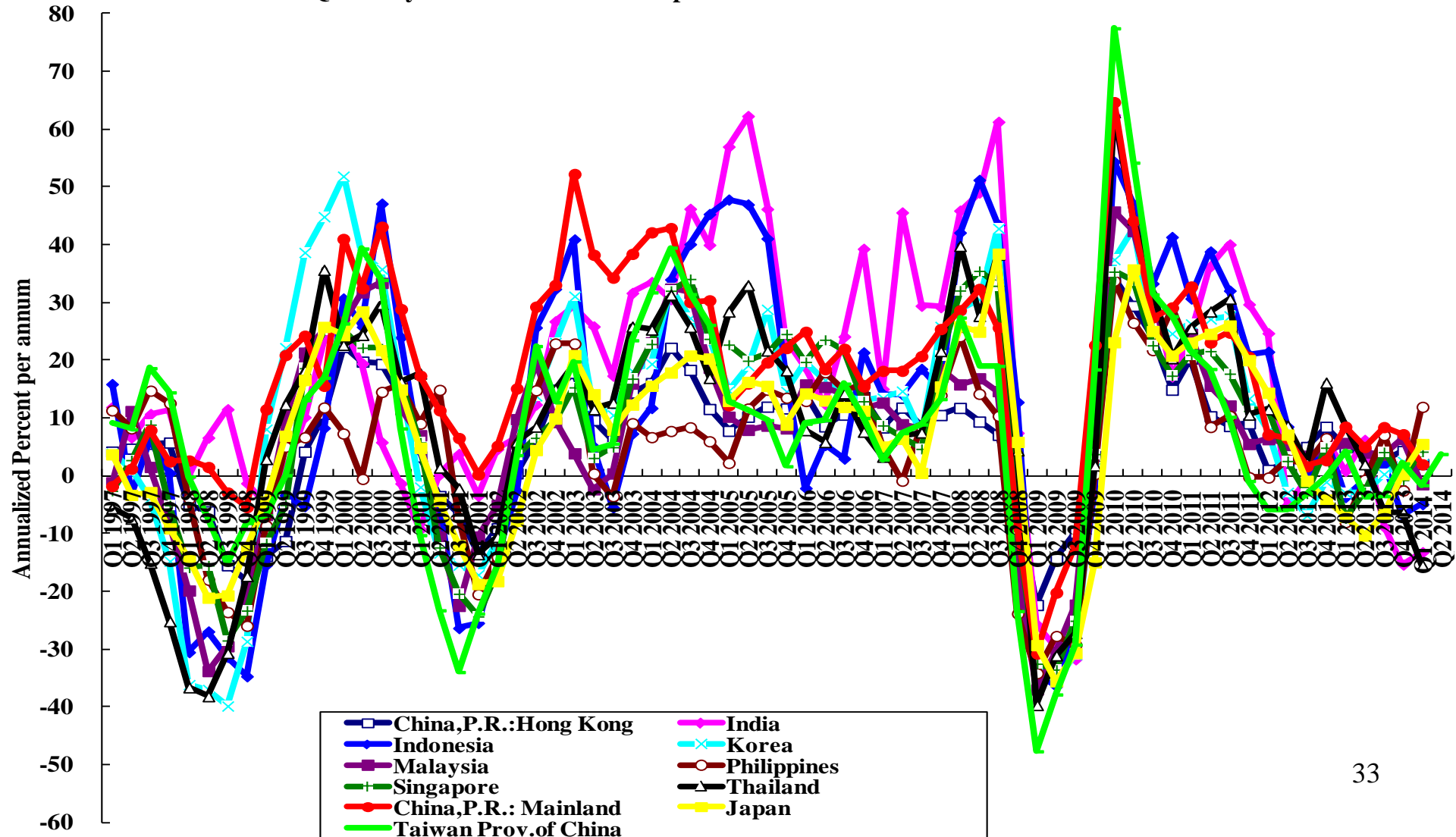
Quarterly Rates of Growth of Exports of Goods: Selected East Asian Economies

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



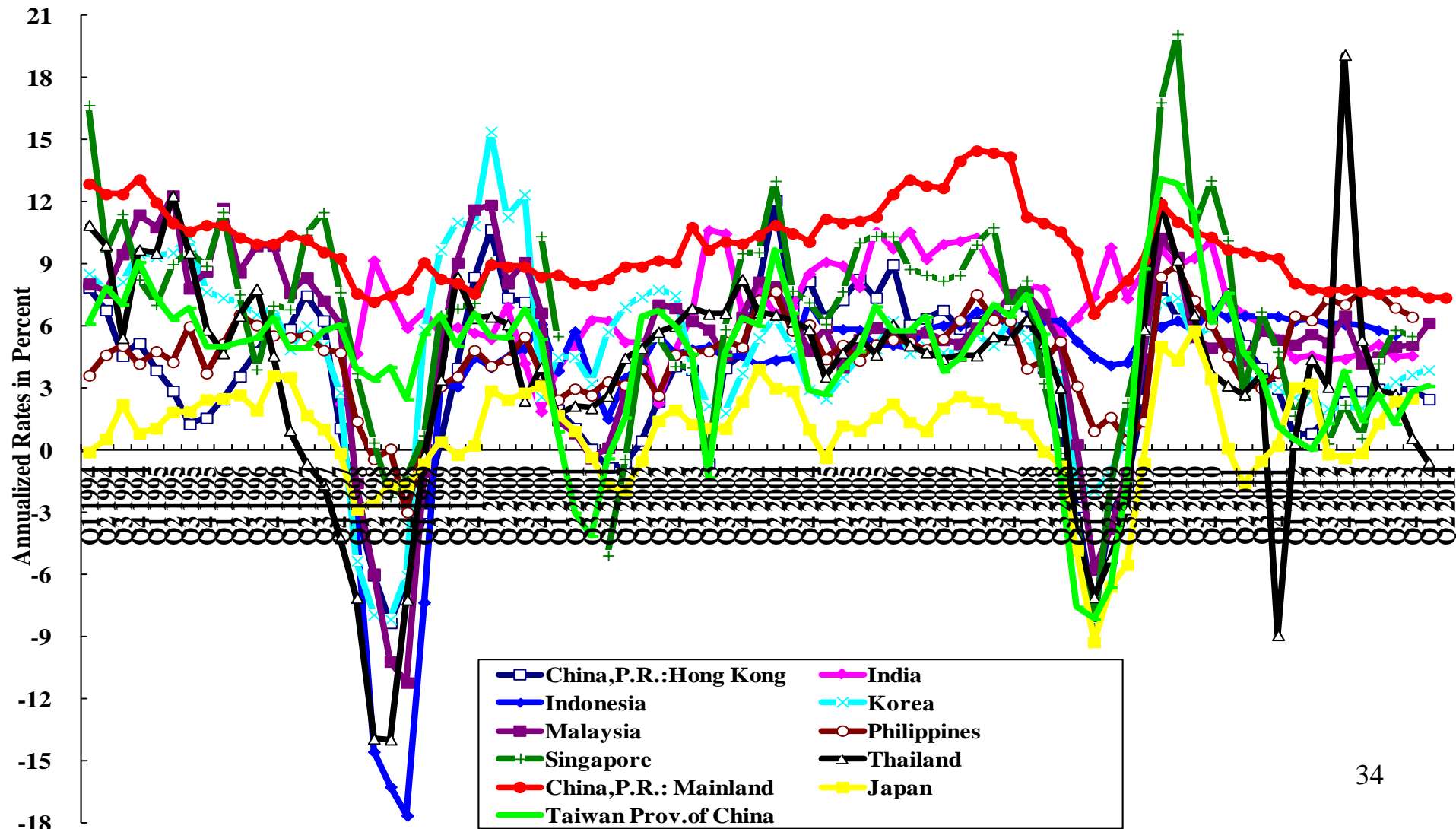
Quarterly Rates of Growth of Imports of Goods: Selected East Asian Economies

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



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

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



The Chinese Economic Fundamentals

- ◆ Long-term economic growth of a country depends on the rates of growth of its primary inputs—capital (tangible or physical) and labour—and on technical progress (or equivalently, the growth of total factor productivity)—that is, the ability to increase output without increasing inputs.
- ◆ The rate of growth of tangible or physical capital depends on the rate of investment on structure, equipment and basic infrastructure, which in turn depends on the availability of national savings.
- ◆ The rate of technical progress depends on investment in intangible capital (including human capital and Research and Development (R&D) capital).

The Chinese Economic Fundamentals: Capital

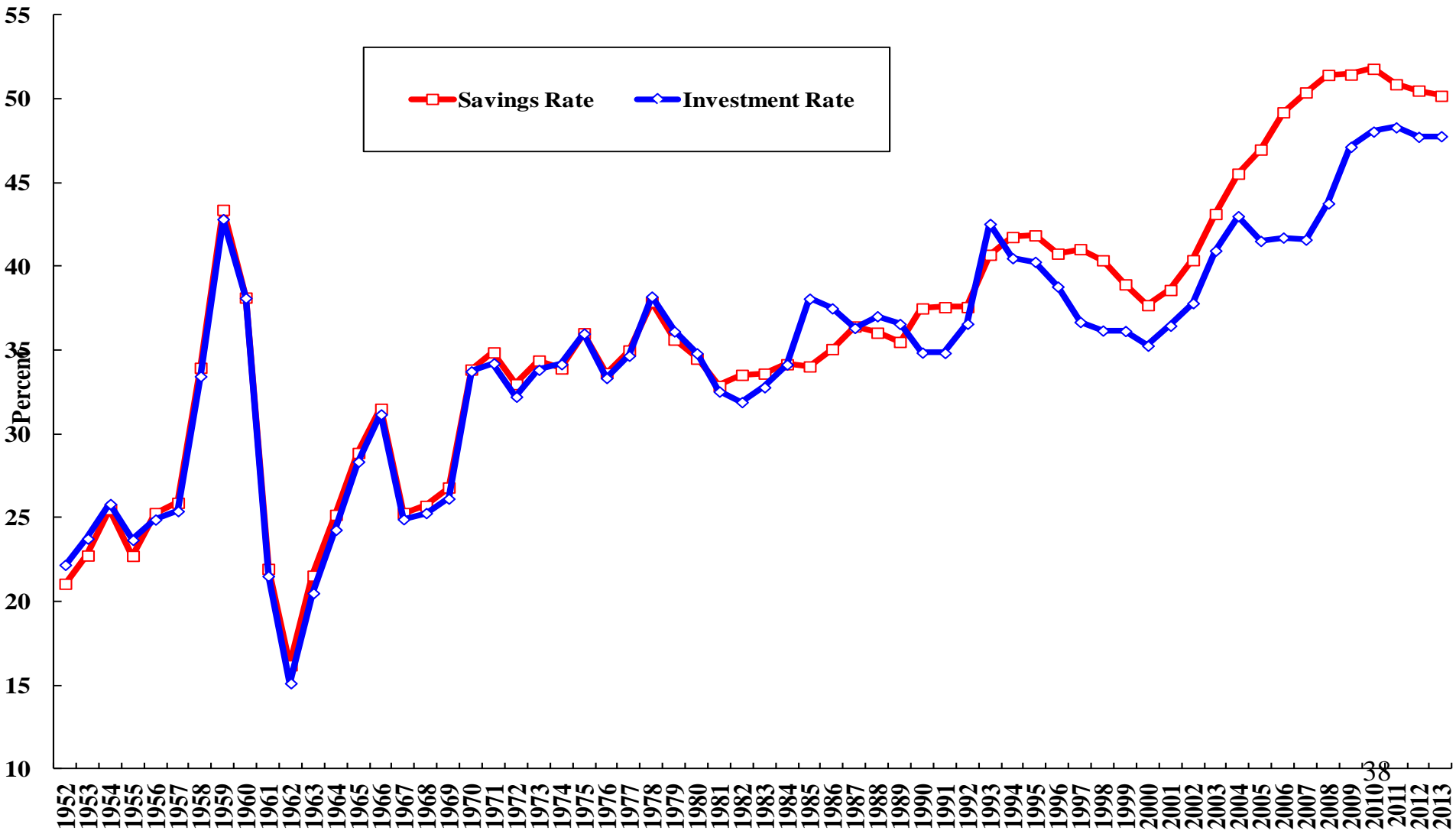
- ◆ Chinese economic growth since 1978 has been underpinned by a consistently high domestic investment rate, enabled by a national savings rate on the order of 30% and above except for a brief start-up period in the early 1950s. The Chinese national saving rate has stayed around 40% since the early 1990s and has at times approached or even exceeded 50% in more recent years.

The Chinese Economic Fundamentals: Capital

- ◆ This means, among other things, that the Chinese economy can finance all of its domestic investment needs from its own domestic savings alone, thus assuring a high rate of growth of the tangible capital stock without having to depend on the more fickle foreign capital inflows (including foreign portfolio investment, foreign direct investment or foreign loans). In particular, it does not need to rely on the inflow of foreign capital—it does not need to borrow abroad and bear the potential risks of a large, and often interruptible, foreign-currency denominated debt.
- ◆ Hence the Chinese economy is also more immune from external disturbances than other 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: Labour

- ◆ China, like Japan, Taiwan, and South Korea in their respective early stages of economic development, has an unlimited supply of surplus labour—there is therefore no shortage of and no upward pressure on the real wage rate of unskilled, entry-level labour. This means the Chinese economy can continue to grow without being constrained by the supply of labour or by rising real wage rates of unskilled, entry-level labour over an extended period of time.

The Chinese Economic Fundamentals: Labour

- ◆ Investment in tangible or physical capital such as structure, equipment and physical infrastructure is very productive under conditions of surplus labour. As long as there is sufficient complementary domestic physical capital, the surplus labour can be gainfully employed and enable the real output of the economy to grow rapidly.
- ◆ This is exactly what the late Prof. W. Arthur Lewis, Nobel Laureate in Economic Sciences, said in his celebrated paper on surplus labour sixty years ago.

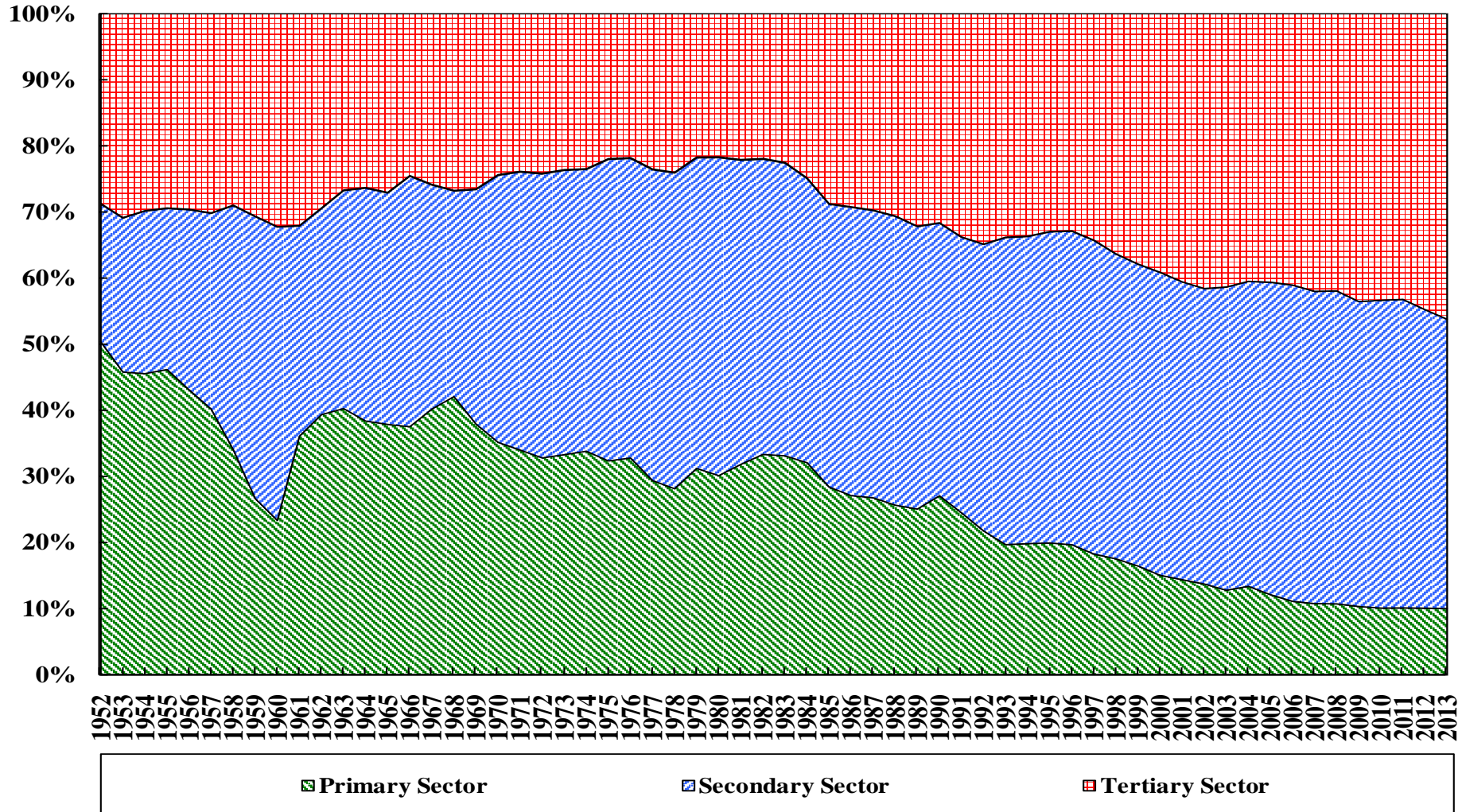
The Chinese Economic Fundamentals:

Labour

- ◆ The distribution of Chinese GDP by originating sectors in 2013 was approximately: Primary (agriculture), 10.0%; Secondary (manufacturing, mining and construction), 43.9%; and Tertiary (services), 46.1%. (Note that mining is normally included in the primary sector in most other economies.)

The Distribution of Chinese GDP by Sector Since 1952

The Distribution of GDP by Sector



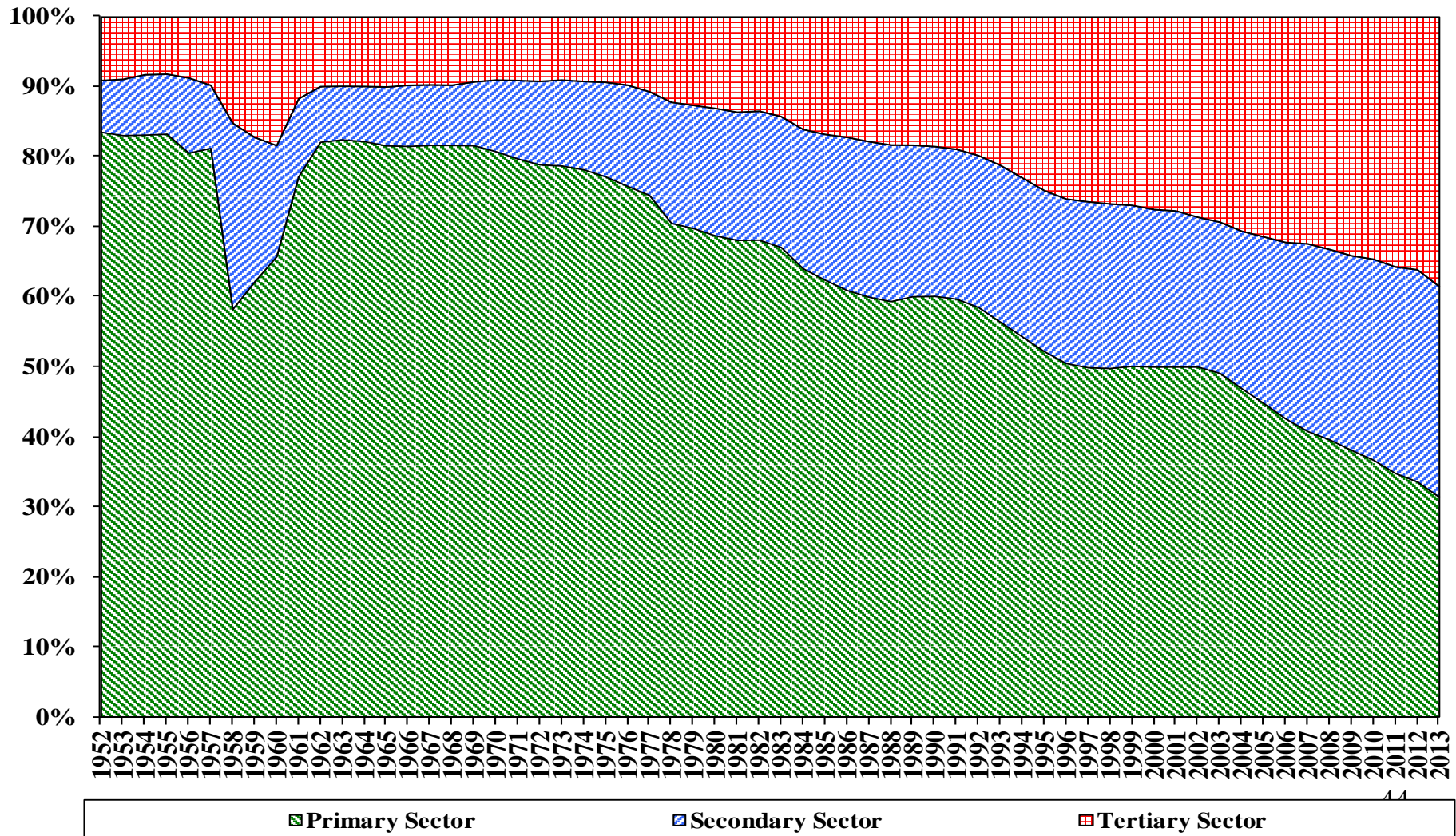
The Chinese Economic Fundamentals:

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. 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:

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.⁴⁵

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 under 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 that of the former Soviet Union operated under central planning, with its inherent economic inefficiencies.
- ◆ From 1953, when China adopted 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 operated under central planning until 1989.

The Inherent Economic Inefficiency under Central Planning

- ◆ Why is there inherent economic inefficiency in a centrally planned economy? We begin by defining what economists mean by efficiency.
- ◆ A production allocation (or plan) for an economy is said to be efficient if for given aggregate quantities of inputs (the tangible capital stock and labour), no output of any good or service can be increased without decreasing the output of another good or service. In other words, the economy is operating on the frontier of its set of production possibilities.

The Inherent Economic Inefficiency under Central Planning

- ◆ For various reasons a centrally planned economy always operates in the interior of its set of production possibilities. Thus, output can be increased by simply moving to the frontier from the interior of the set of production possibilities, The existence of inherent inefficiency therefore also implies the existence of surplus potential output.
- ◆ In order to understand why there always exists inefficiency and hence surplus potential output in a centrally planned economy, we consider the following simple example drawn from agriculture.

The Inherent Economic Inefficiency under Central Planning

- ◆ There are two farm households, A and B. Each has a hectare of land. Both cotton and rice are needed by the economy. The central planner's problem is to decide—which household should grow cotton and which household should grow rice, as well as how much of each crop to grow.
- ◆ First of all, there is a problem of insufficient or incorrect information. The central planner may not know which plot is more suitable for growing cotton and which plot is more suitable for growing rice. Moreover, the central planner may not know whether Farmer A can grow cotton better than Farmer B or vice versa. If the central planner makes any mistake in the assignment of production responsibilities, a simple exchange of the assignment can increase total output without having to increase any input.

The Inherent Economic Inefficiency under Central Planning

- ◆ Second, there is also the problem of a lack of incentive on the part of the farmers to exceed the assigned production targets even if they can in principle do so. To the farmer, if he or she manages to produce an output that exceeds the assigned production target, not only would his or her income not increase, so that the extra efforts would have been in vain, but also the assigned production target for the following year might be raised, making it more difficult for the farmer to fulfill his or her obligation then. (This is sometimes referred to as the “ratchet” effect.) Thus, under a centrally planned system, the optimal strategy for the farmers is to try to produce the assigned target output, and not try to exceed it.

The Inherent Economic Inefficiency under Central Planning

- ◆ However, if there is a way to provide the necessary incentives to the farmers, then without increasing the aggregate inputs assigned under the central plan, aggregate output can also be increased. For example, the farmers can be given the autonomy to grow anything on their plots once they have fulfilled their obligations under the central plan, and to retain the resulting profits and to bear the resulting losses, if any; or they can also trade their assigned responsibilities with each other.

The Inherent Economic Inefficiency under Central Planning

- ◆ On the eve of the beginning of economic reform and opening in 1978, the Chinese economy still operated under a mandatory central plan, and therefore had significant surplus potential output.
- ◆ The countries of the former Soviet Union and Eastern Europe were all centrally planned economies on the eves of their economic transition and thus also had similarly significant surplus potential output.
- ◆ If the surplus potential output can be fully exploited and realised, the real rates of growth of these economies can be very high, even without any significant growth in the aggregate inputs, at least in the near term. With the growth in inputs, the economy should be able to grow even faster.

The Inherent Economic Inefficiency under Central Planning

- ◆ It is important to understand that the real output of an economy can increase in one of two ways: through an outward movement of the frontier of the production possibilities set, or through a movement from the interior of the production possibilities set to the frontier of the production possibilities set.
- ◆ One should distinguish between the two ways. The first can only occur through an increase in the inputs, tangible and intangible, and hence an increase in potential output. The second can occur even the absence of any increase in the inputs. It can be regarded as a pure increase in efficiency with no increase in potential output.

The Significance of Economic Reform and Opening

- ◆ It may therefore be thought that with the existence of significant surplus outputs in a centrally planned economy, its real rate of growth must be very high when it makes the transition from a centrally planned to a market economy and from an autarkic to an open economy.
- ◆ However, empirically this turns out not to be the case in general, except for the Chinese economy.

The Alternate Strategy for Economic Transition

- ◆ In the former Soviet Union and the Eastern European countries, the transition from a closed centrally planned economy to an open market economy beginning in the late 1980s was both difficult and painful. Most of these countries experienced negative real rates of growth for approximately a full decade and suffered from extremely high rates of domestic inflation.
- ◆ Real GDPs per capita in these formerly centrally planned economies took even longer to recover to the 1989 levels. For example, real GDP per capita of Russia did not recover to its 1989 level until 2007.

GDP per Capita of Former Soviet Union and East European Countries, in 2005 US\$

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

