Is the Chinese Economy a Miracle or a Bubble?

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Introduction

- China has made tremendous progress in its economic development since it undertook economic reform and opened its economy to the world in 1978, a decision made at the Third Plenum of the Eleventh Central Committee of the Chinese Communist Party in December 1978.
- China is currently the fastest-growing economy in the world—averaging a real rate of growth of almost **9%** (8.93% to be exact) per annum over the past 45 years — even though it has begun to slow down to an average annual real rate of growth of around 6% in recent years. No other economy in recorded history has grown at anywhere near such a high rate and for such a long period as China has done.
- What is most remarkable is that during the 45 years since 1978, there was not a single year in which the level of Chinese real GDP declined (or, equivalently, the rate of economic growth turned negative), despite political and financial crises both at home and abroad, as well as a major pandemic, COVID-19, during 2020-2023.
- During the same period, real GDP per capita grew from **US$393.8** to **US$12,625.7** at an average rate of **8.01%** per annum (at 2023 prices). Approximately 800 million people have been lifted out of poverty. Moreover, many qualitative indicators, such as educational attainments and life expectancies, have also improved significantly over the same period.
- The questions that naturally arise are: Was the Chinese economy a "**miracle**"? Or was it a mere "**bubble**"?

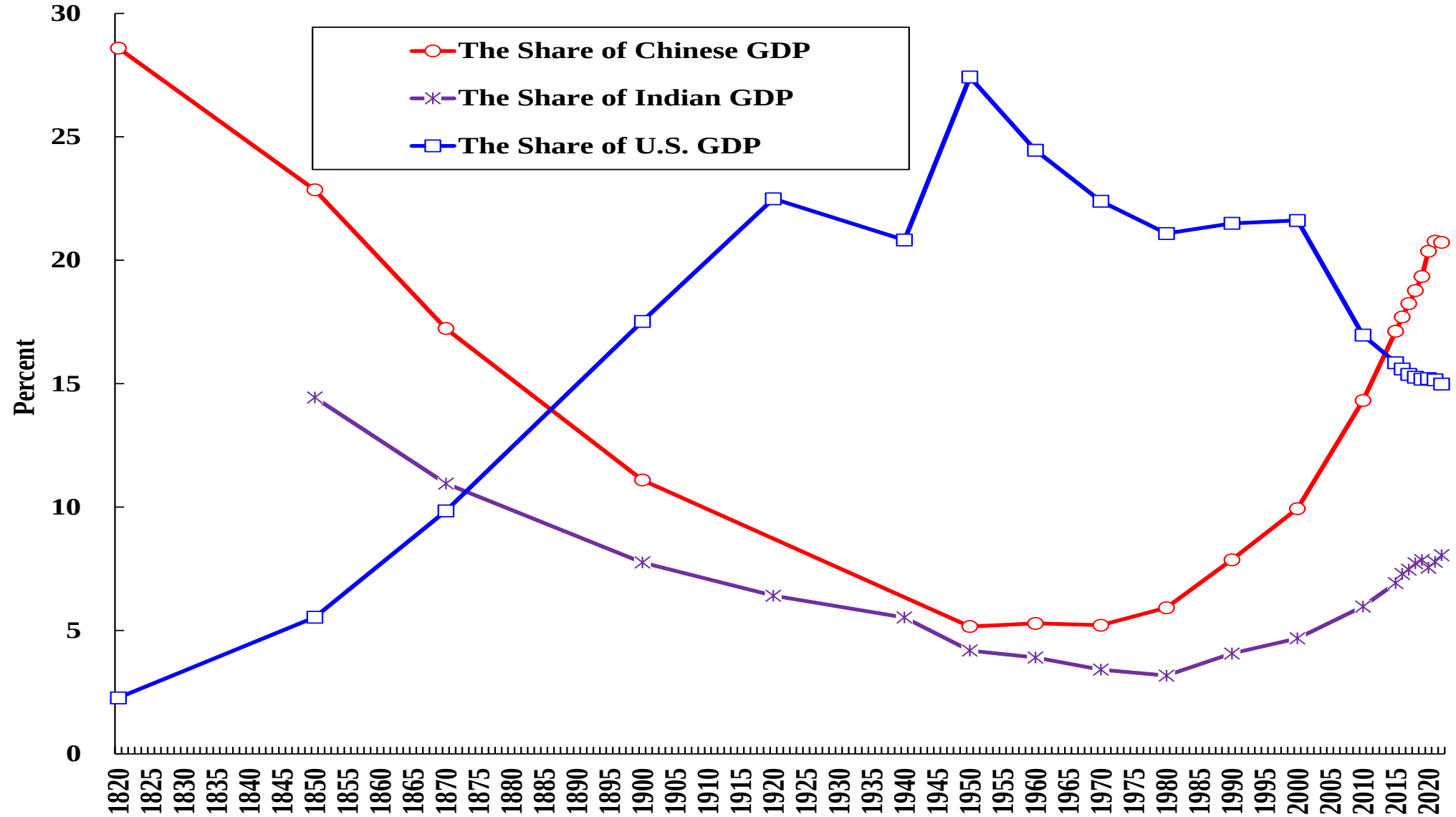
The Definitions of "Miracle" and "Bubble"

- A miracle is defined in the dictionary as "**a surprising and welcome event that is not explicable by natural or scientific laws and is therefore sometimes considered to be the work of supernatural power.**" The highly successful Chinese economic development experience over the past four and a half decades was clearly **surprising** and **welcome**, but was it really **inexplicable**? Moreover, a real miracle is also not **replicable**.
- In economics, a bubble usually refers to "**a fortunate situation that arises quickly, but which may be unrelated to reality and unlikely to last**." Is the Chinese economy likely to continue to grow steadily, albeit at somewhat lower rates, or will it burst and collapse like a bubble? The characteristic of a bubble is its lack of durability, or lasting power. The tulip-mania of 1634-1637 in the Netherlands was an early example of an asset price bubble. The dot-com bubble between 1995 and 2002 on NASDAQ was another example.
- I hope to convince readers that the growth of the Chinese economy can be explained and has stood the test of time. It is therefore neither a simple miracle nor an unsustainable bubble and that it will continue its solid and steady pace in the future.

A Historical Review: The Fall and Rise of the Chinese Economy from 1820 to the Present

- We begin with a chart showing the shares of China, India and the U.S. of world GDP from 1820 to the present, using data from the (Angus) Maddison Project Database. The database was constructed on the basis of "Purchasing Power Parity (PPP)" international prices, and hence generates slightly different results from those studies that use market prices at market exchange rates, including this one.
- In 1820, China supposedly accounted for more than 30% of the then world GDP, India somewhere between 20 and 25%, and the U.S. less than 3%. China and India together (and hence Asia) accounted for more than half of the then world GDP.
- The Chinese and Indian shares then declined continuously until 1950 for China, and 1980 for India, to below 5%, whereas the U.S. share rose steadily to reach a peak of over 30% in 1960. The Chinese and Indian shares then began to recover from their respective bottoms.

The Shares of world GDP of China, India and the U.S. since 1820 (Maddison Project Database) PPP



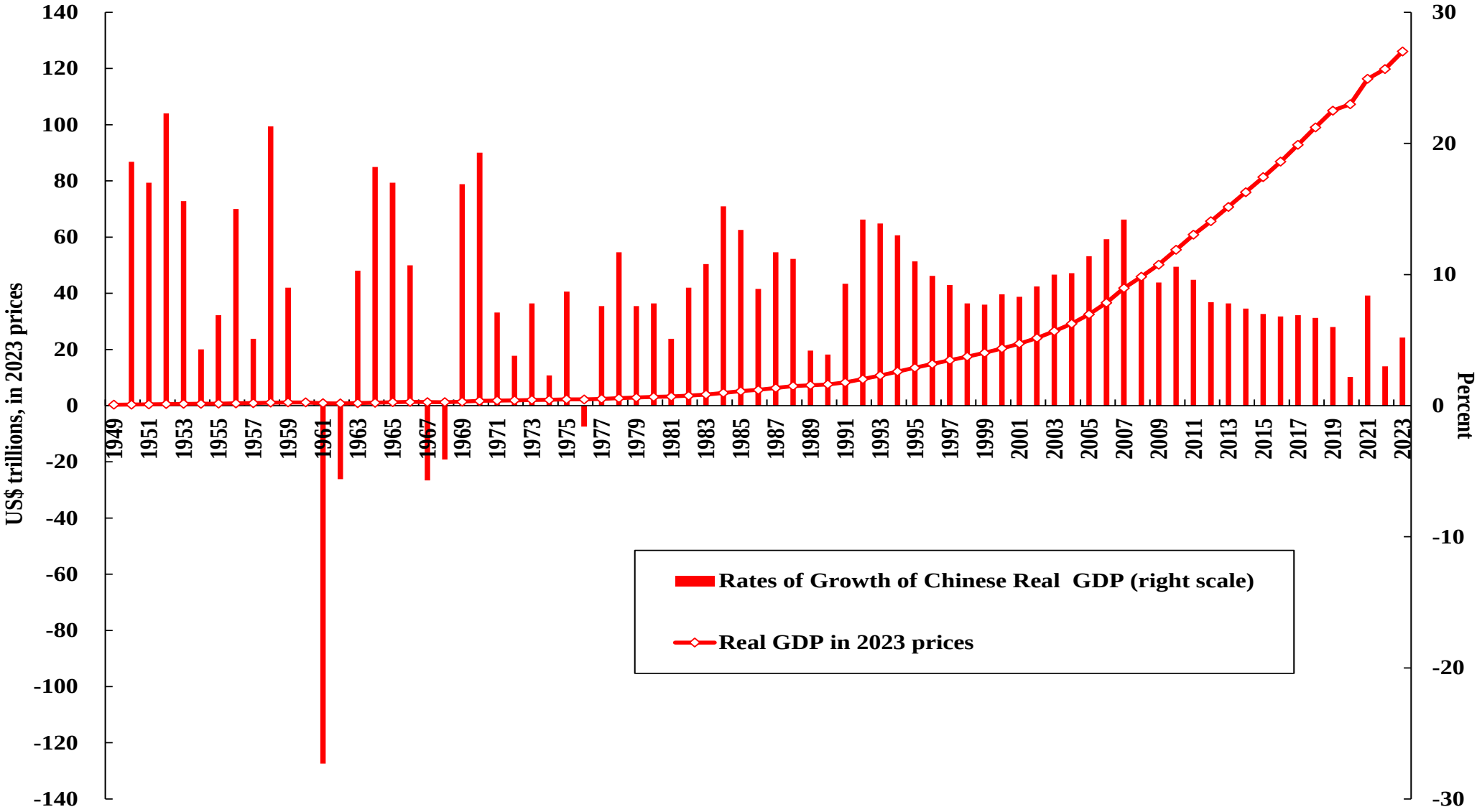
The Fall and Rise of the Chinese Economy from 1820 to the Present

- In 2014, in terms of Purchasing-Power-Parity (PPP) international prices, Chinese GDP reached parity with U.S. GDP, with each accounting for approximately 18% of world GDP. This finding was supported by both the International Monetary Fund and the World Bank.
- In PPP terms, by 2022, the Chinse and Indian shares rose to 20.7% and 8.1% respectively, but the U.S. share declined to 15.0%. Thus, the Chinese GDP was 138% of the U.S. GDP.
- However, evaluated in 2023 market prices and at the year-end 2023 Yuan/US$ market exchange rate, the Chinese GDP of US$17.80 trillion was only 65.1% of the U.S. GDP of US$27.36 trillion in 2023.
- For various reasons, the Chinese real GDP per capita started to fall continuously in the 19th Century until the middle of the 20th Century, to US$86.9 in today's prices in 1949.

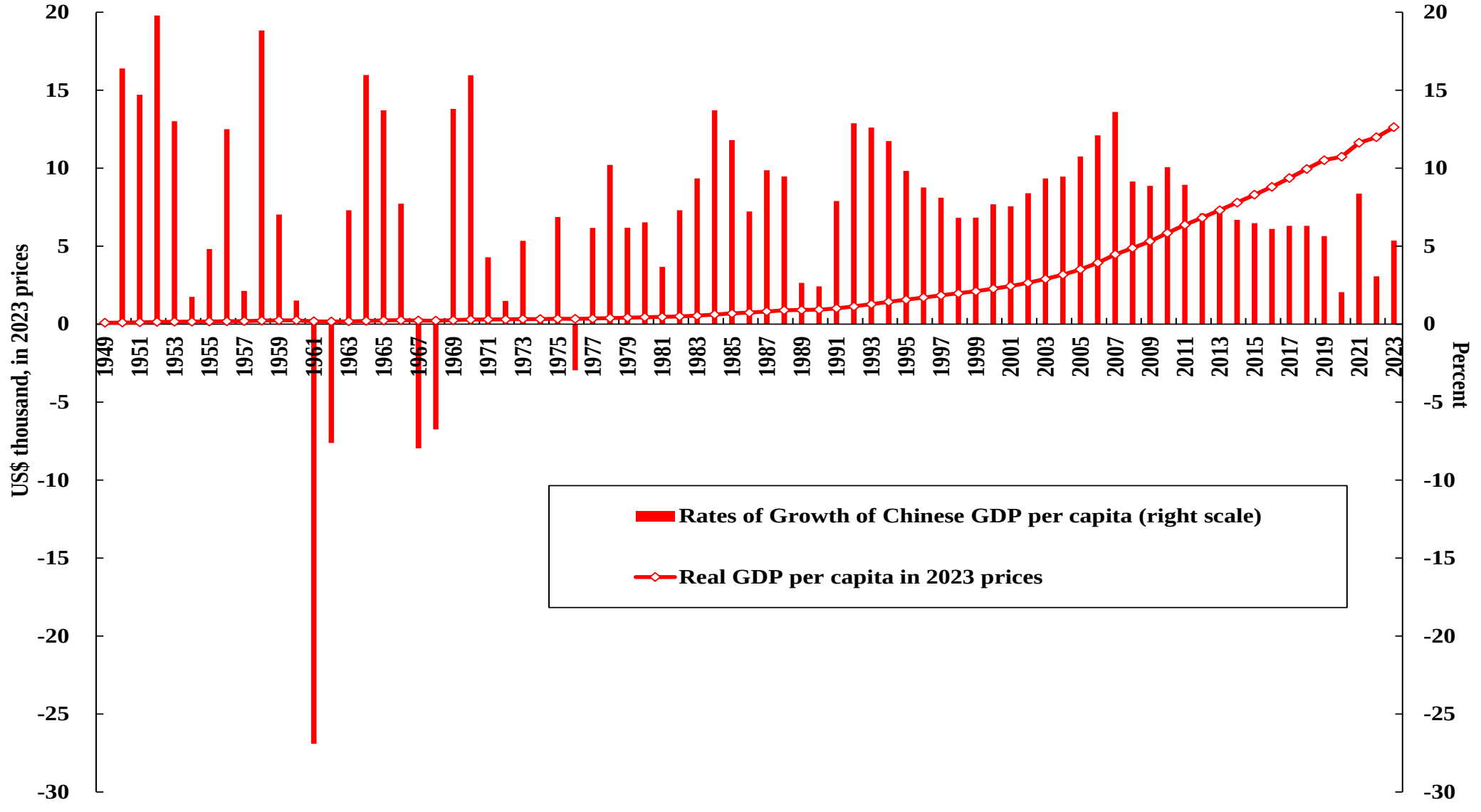
Economic Performance since 1949

- The People's Republic of China was established in 1949. The pre-reform period, 1949-1978, was marred by very large positive as well as negative fluctuations in the rates of growth of real GDP (see chart). However, taken as a whole, between 1949 and 2023, the growth has also been equally impressive. Chinese real GDP grew from US$47.1 billion to US$17.80 trillion (at the Yuan/US$ exchange rate of year-end 2023), an almost 380-fold increase, at an average annual rate of **8.35%**.
- Similarly, Chinese real GDP per capita grew more than 140-fold, from US$86.9 to US$12,626 in 2023 prices, with an average annual rate of growth of **6.96%**, a truly remarkable achievement over such a long period of time by any standard. However, the Chinese real GDP per capita was less than one-sixth of that of the U.S. and ranked below 70th among all economies in the world.

Chinese Real GDP and Its Annual Rate of Growth: 1949-2023



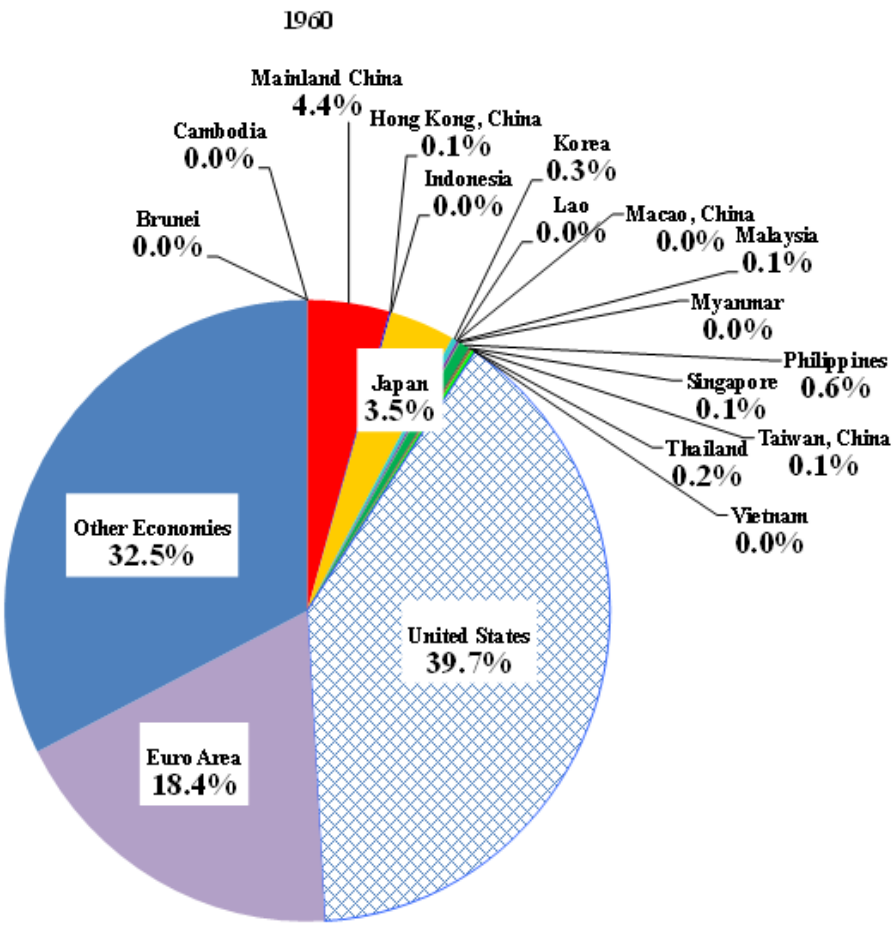
Chinese Real GDP per Capita and Its Annual Rate of Growth: 1949-2023

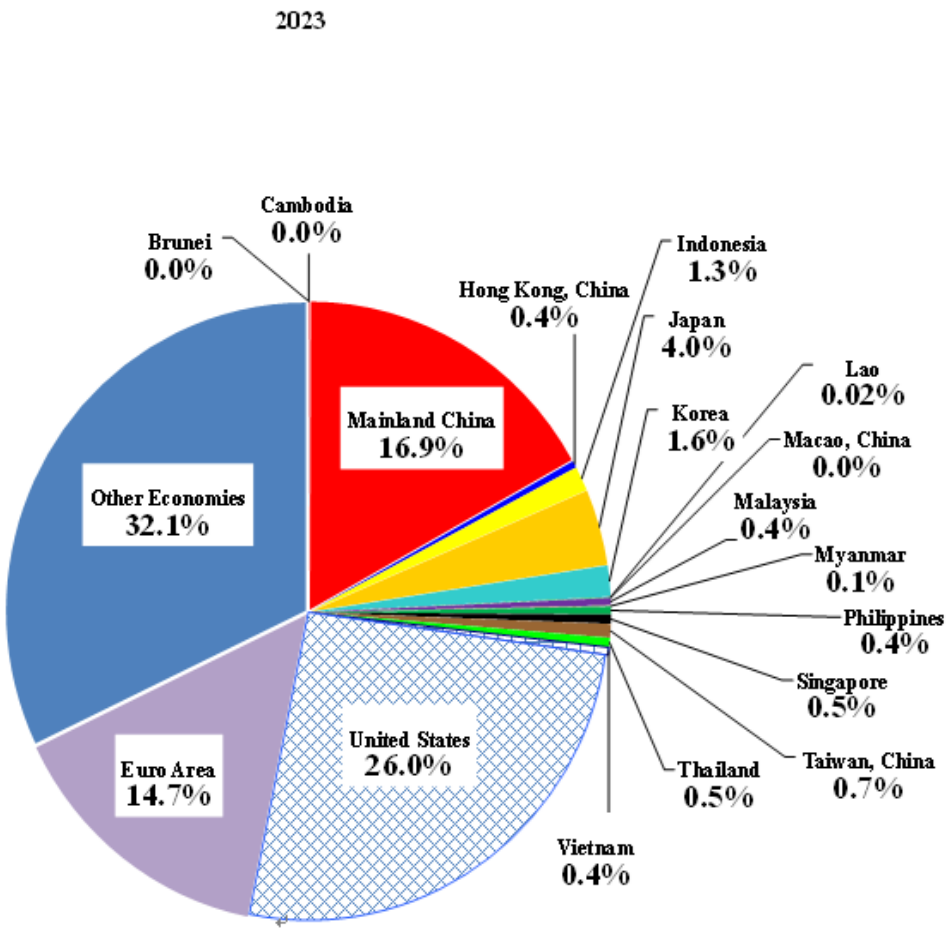


Economic Performance since 1949: Shifting the Centre of Gravity of the Global Economy

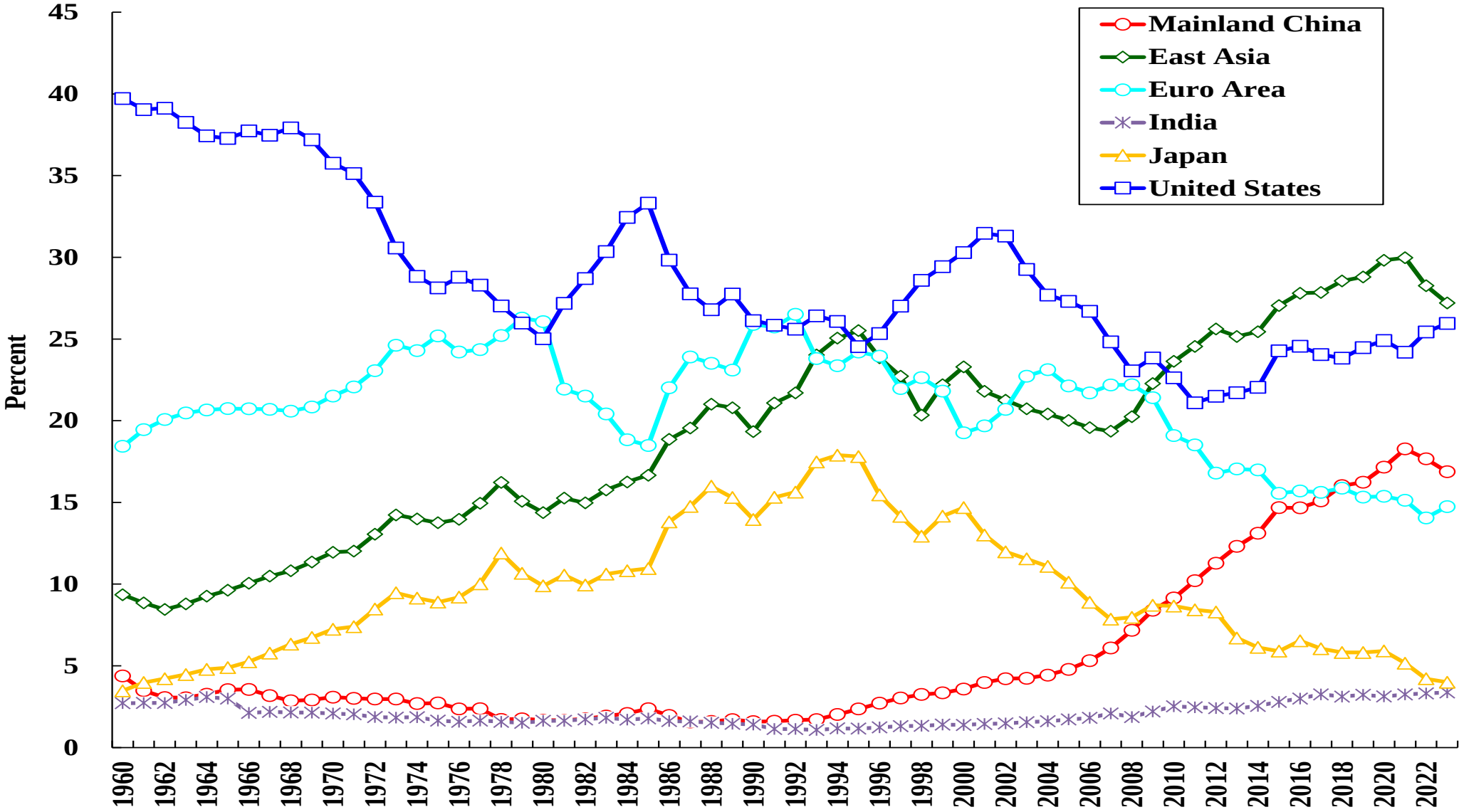
- Based on market prices and exchange rates, in 1960, the United States and the Euro Area together accounted for over 58% of world GDP. By comparison, East Asia (defined as the ten Association of Southeast Asian Nations (ASEAN)--Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam--plus 3 (China including Hong Kong, Macau and Taiwan, Japan and South Korea)) accounted for approximately 9.4% of world GDP, with Mainland China at 4.4% (see chart). By 2023, the share of United States and the Euro Area in world GDP has declined to approximately 40.7% whereas the share of East Asia has risen to 27.2% and that of China to 16.9% (see the following charts).
- During the same period, Japan's share went from 3.5% to 4.0%, although at its peak, Japan accounted for almost 18%; and India's share went from 2.7% in 1960 to 3.4% in 2022. China's share was similar to India's share before the Chinese economic reform and opening to the world.
- With the continuing growth of India, ASEAN, South Asian and Middle Eastern economies, Asia's share of world GDP is likely to exceed one half once again in another decade or so.

The Distribution of World GDP, 1960 and 2023, US$





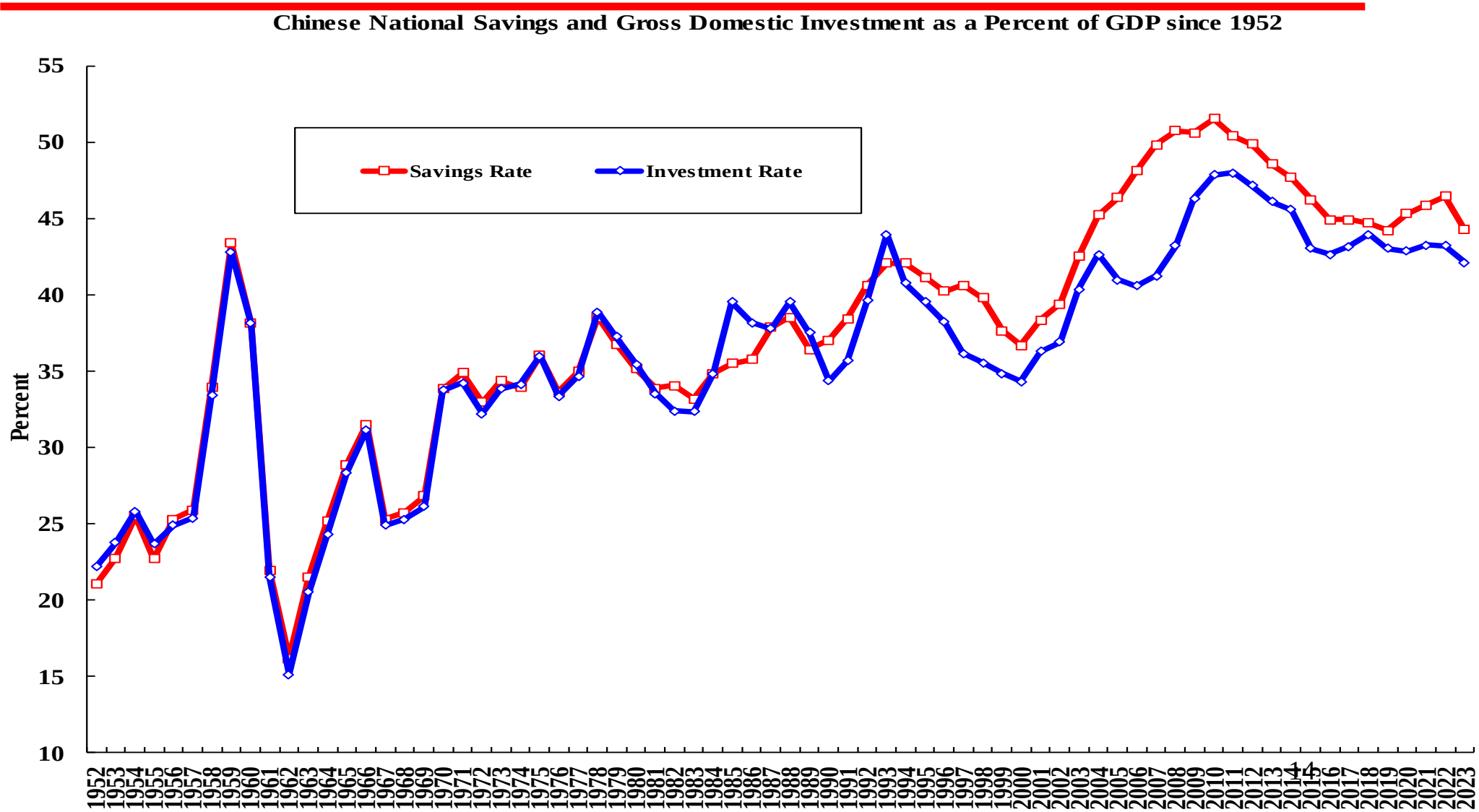
The Shares of China, East Asia, the Euro Area, India, Japan & the U.S. in World GDP, 1960-2023



The Chinese Economic Fundamentals: Tangible (or Physical) Capital and Labour

- The long-term economic growth of a country depends on the rates of growth of its primary inputs—tangible (or physical) capital and labour—and on technical progress (or equivalently, the growth of total factor productivity (TFP))—that is, the ability to increase output without increasing inputs.
- The tangible capital stock is defined as the cumulative past real investment in structure, equipment and basic infrastructure, less the respective appropriate depreciations. The rate of growth of the tangible capital depends on investments in these three categories of fixed capital. The quantity of total investment in turn depends on the availability of national savings as well as foreign direct investment, foreign portfolio investment, foreign loans and foreign aid.
- China, like Japan, Taiwan, and South Korea in their respective early stages of economic development, has an unlimited supply of surplus labor—there is therefore no shortage of and no upward pressure on the real wage rate of unskilled, entry-level labor. This means the Chinese economy can continue to grow without being constrained by the supply of labor or by rising real wage rates of unskilled, entry-level labor over an extended period of time.

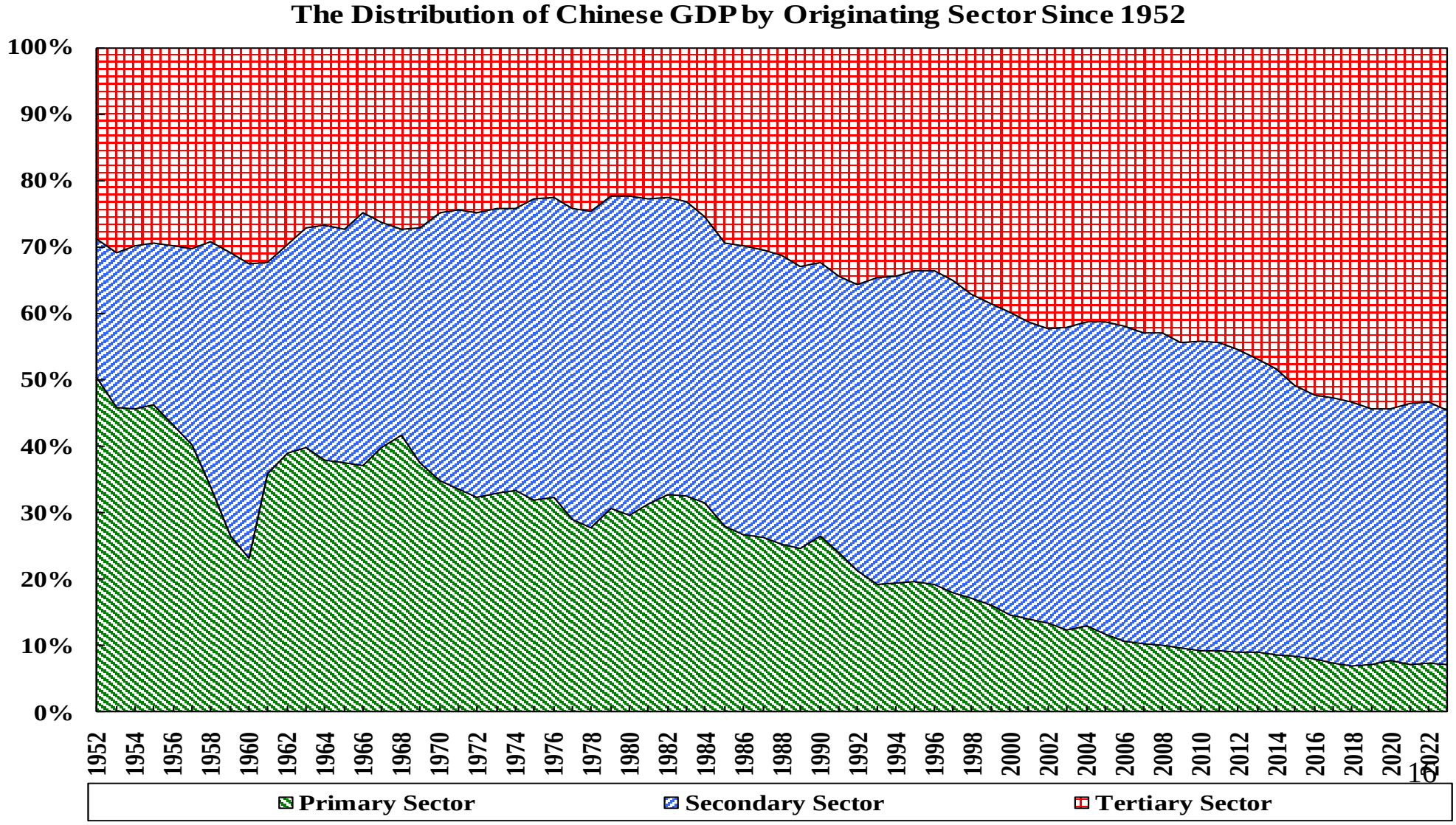
Chinese National Saving and Gross Domestic Investment as Percents of GDP, 1952-2023



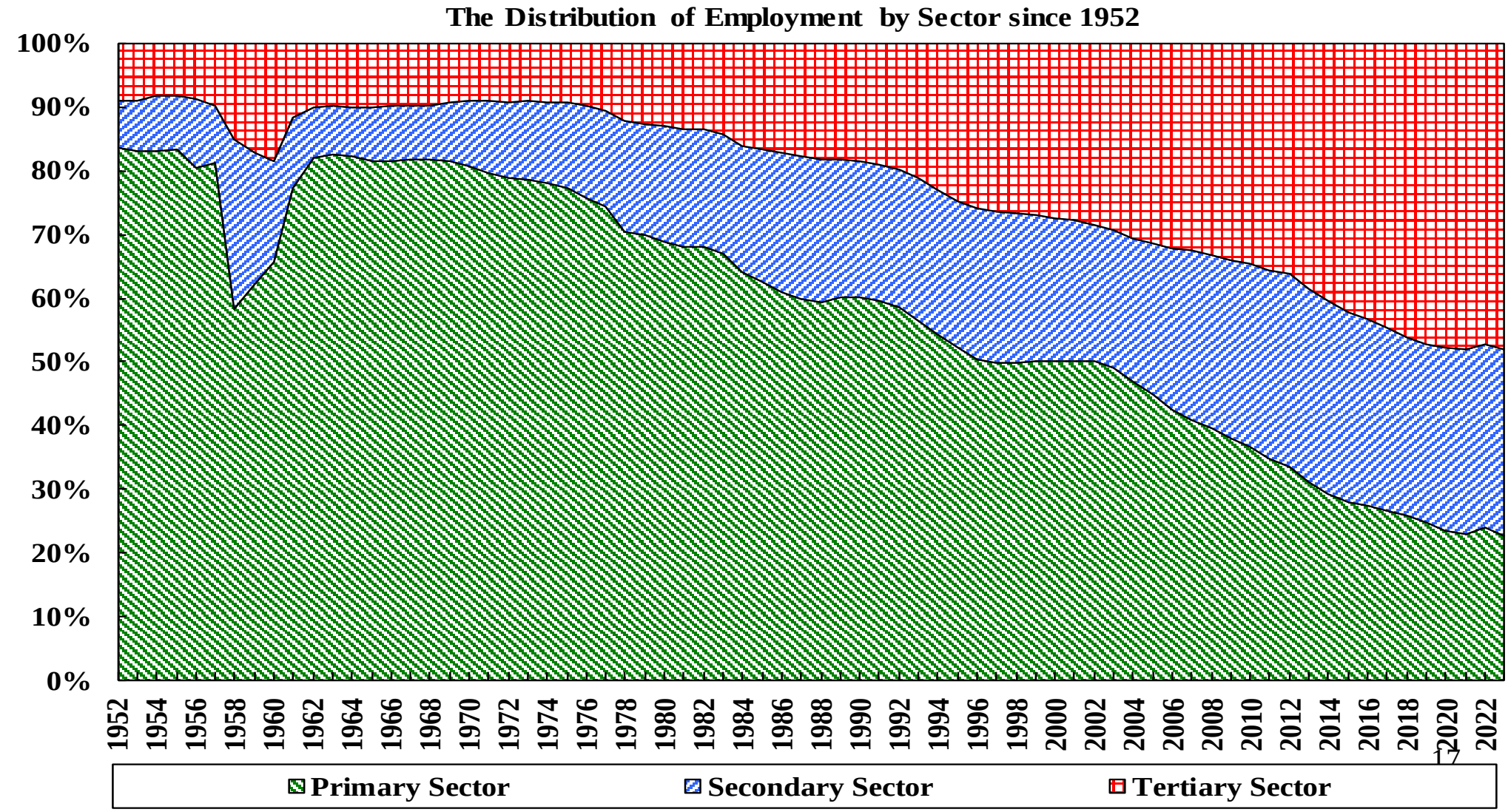
The Chinese Economic Fundamentals: Labour

- The distribution of Chinese GDP by production-originating sectors in 2023 was approximately: Primary (agriculture), 7.1%; Secondary (manufacturing, mining and construction), 38.3%; and Tertiary (services), 54.6%. (Note that mining is normally included in the primary sector in most other economies.)
- The distribution of employment by sector in 2023 was: Primary, 22.80%; Secondary, 29.06%; and Tertiary, 48.13%.
- The agricultural sector employed 22.8% of the Chinese labor force but produced only 7.1% of the Chinese GDP in 2023. Thus, labour can be productively transferred to the other two sectors where labor productivities and wage rates are higher as long as complementary capital and demand are available.
- Even as the Chinese population fell in 2022 and 2023, the Chinese mandatory retirement ages, which were set in the early 1950s—50 for women (except for cadres) and 60 for men—are now way too early given that life expectancy at birth has almost reached 80 years. The government has recently introduced a plan to raise the retirement age gradually over time.

The Distribution of Chinese GDP by Sector Since 1952



The Distribution of Chinese Employment by Sector Since 1952



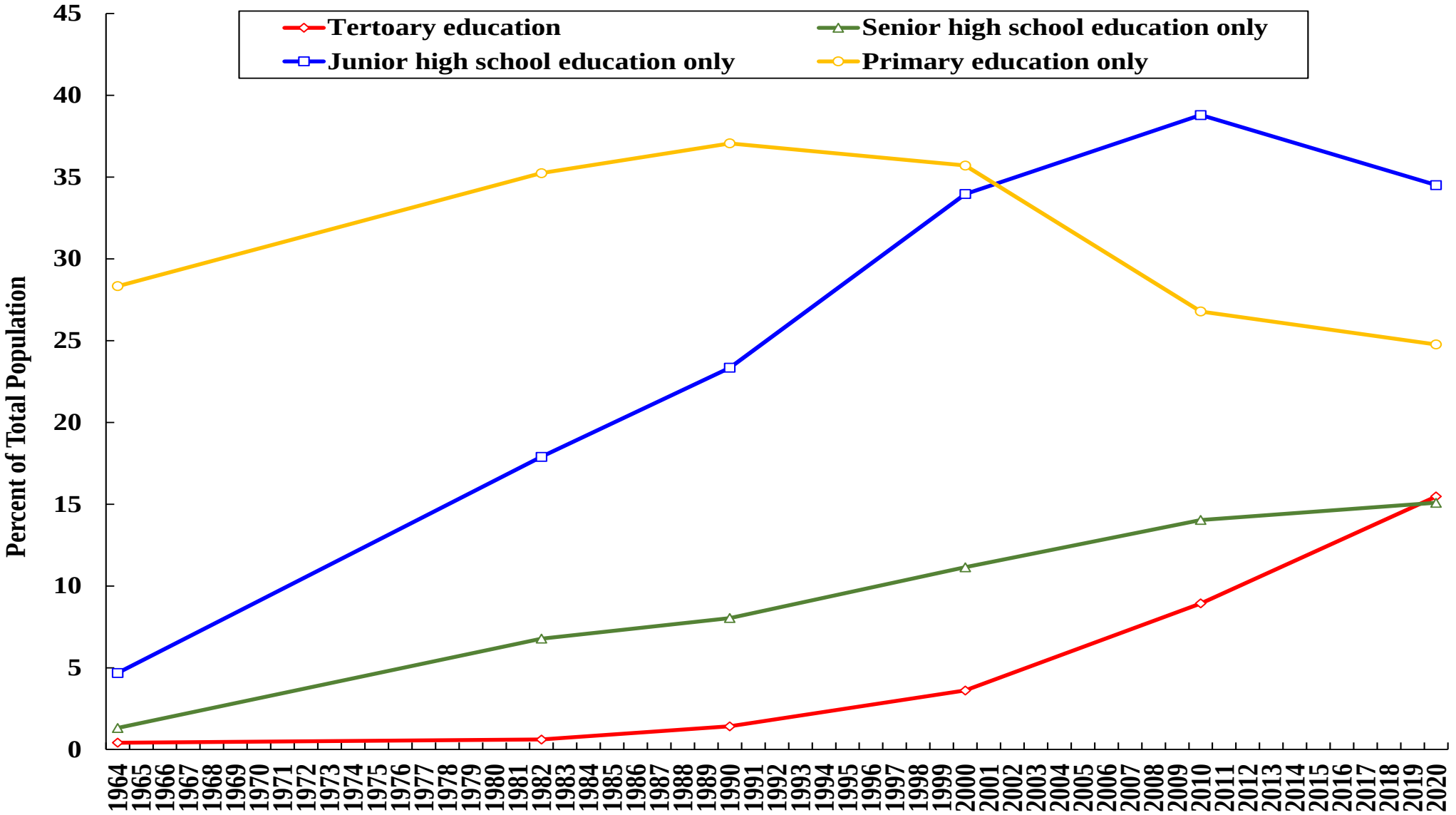
The Chinese Economic Fundamentals: Intangible Capital

- Two types of intangible capital may be distinguished: human capital and technology capital. Technical progress (or the rate of growth of TFP) is not manna from heaven, but depends on the cumulative past investments in (that is, the stocks of) intangible capital such as human capital and Research and Development (R&D) capital.
- Human capital may be measured as the discounted present value of the stream of future earnings. An important indicator of the quantity of human capital is the number of years of schooling per person in the labour force or working-age population.
- Technology capital may also be measured as the discounted present value of the stream of future earnings from intellectual capital (property). An important indicator of the quantity of technology capital is the stock of real R&D capital, which may be measured as the cumulative real R&D expenditures less an annual depreciation of 10%.
- R&D may be further distinguished by basic research, applied research and development. Basic research is essential for any break-through discovery or invention but is not expected to have a positive real internal rate of return. Thus, it is mostly financed by grants from the government or non-profit organisations.

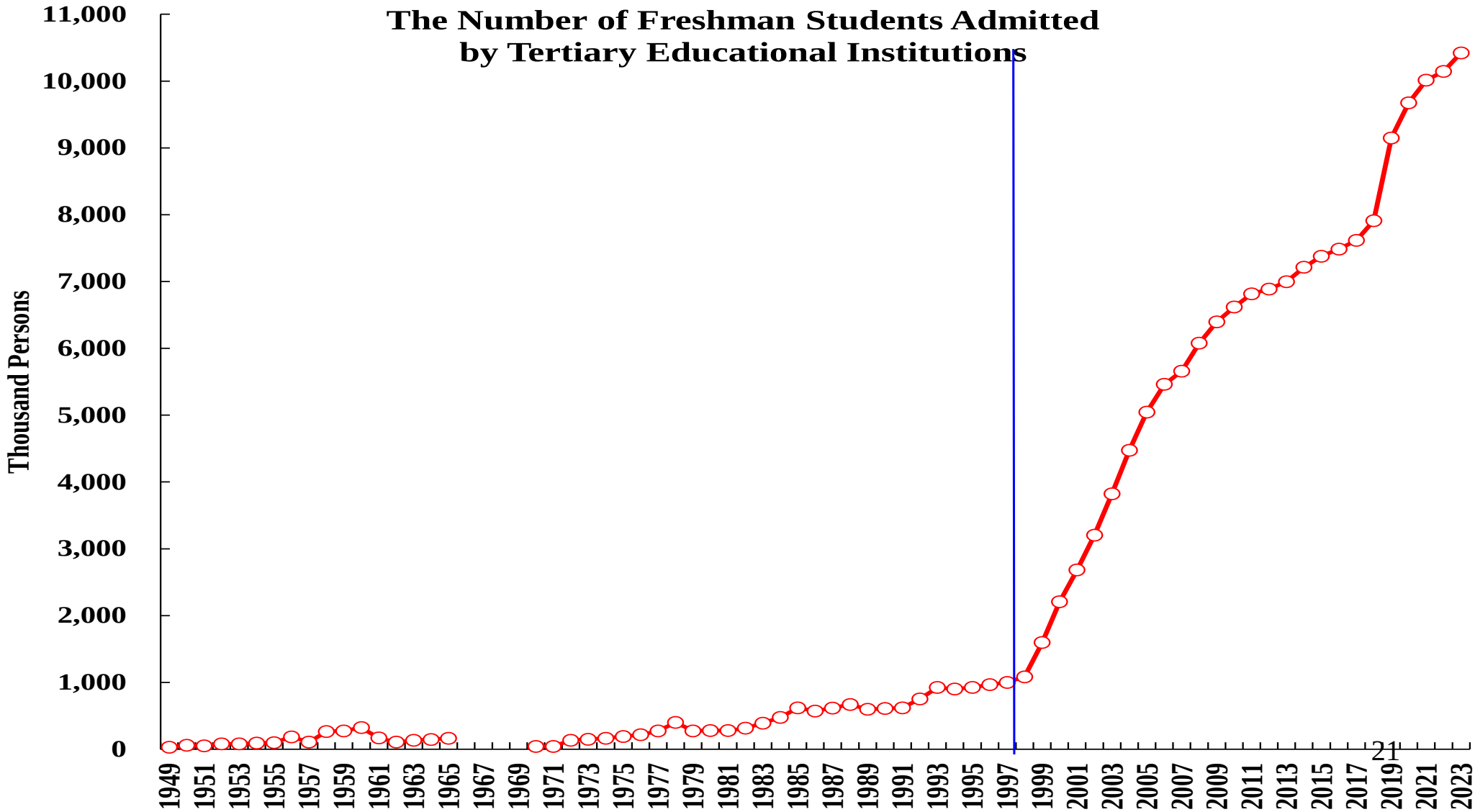
The Chinese Economic Fundamentals: Human Capital

- Mandatory 9-year education for all was introduced in China in 1986. Today, most, but not all, young people have had at least 12 years of education, even though senior secondary education is still not yet mandatory at this time.
- The proportions of people with only primary education (the yellow line) or junior secondary education (the blue line) have already peaked and begun to decline.
- The tertiary enrolment rates of graduates of senior secondary schools was 24.6% in 1989 and rose to 94.5% in 2016, thanks to a huge increase in tertiary enrollment beginning in 1999. This means almost everyone who wishes to attend a tertiary educational institution after graduating from a senior secondary school is now able to do so. (However, the proportion of the population aged 18-22 that were enrolled in tertiary education institutions in 2021 was only 57.8%, indicating that not everyone in that age cohort was able to complete senior secondary education.)
- The proportion of the total population with tertiary education (the red line), which was only 0.42% in 1964, rose to 15.47% in 2020 according to the National Population Census, and is expected to increase further with time.

The Chinese Economic Fundamentals: Educational Attainment Rates (Percent)



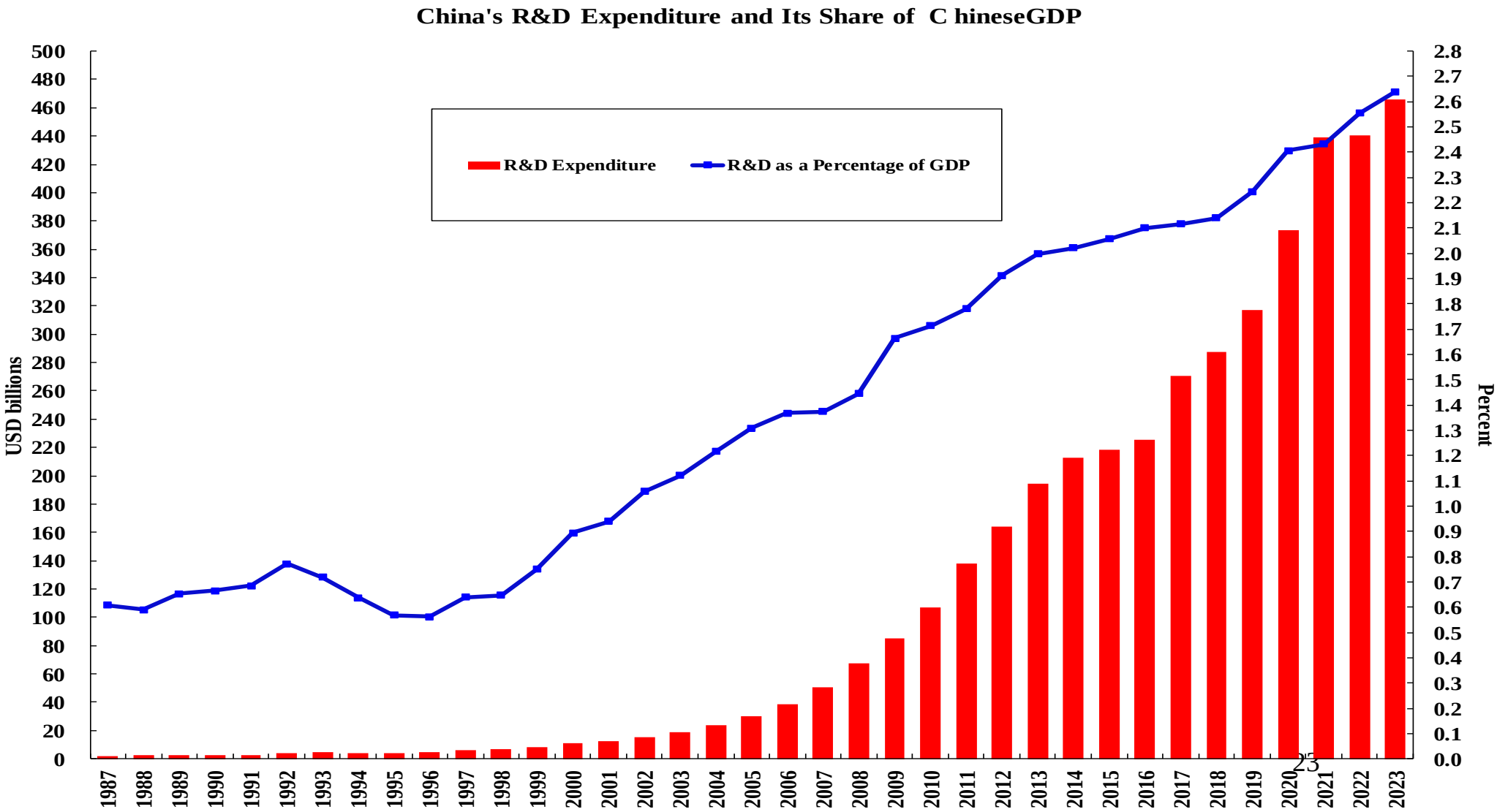
The Number of Freshman Students Admitted by Tertiary Educational Institutions, 1949-2023



The Chinese Economic Fundamentals: The Real R&D Capital Stock

- The real R&D capital stock of a country is defined as the cumulative real expenditure on R&D less a depreciation of 10% per annum.
- Lawrence J. Lau and Yanyan Xiong have established a positive and monotonically increasing relationship between the number of patents granted by the U.S. Patent and Trademark Office (USPTO) and the quantity of real R&D capital stock for a selection of developed and developing countries and regions in their book, Are There Laws of Innovation?, Singapore: World Scientific Publishing Company, 2022.
- Basically, the larger the quantity of real R&D capital stock of a country or region is, the greater the number of USPTO patents received by that country or region will be.

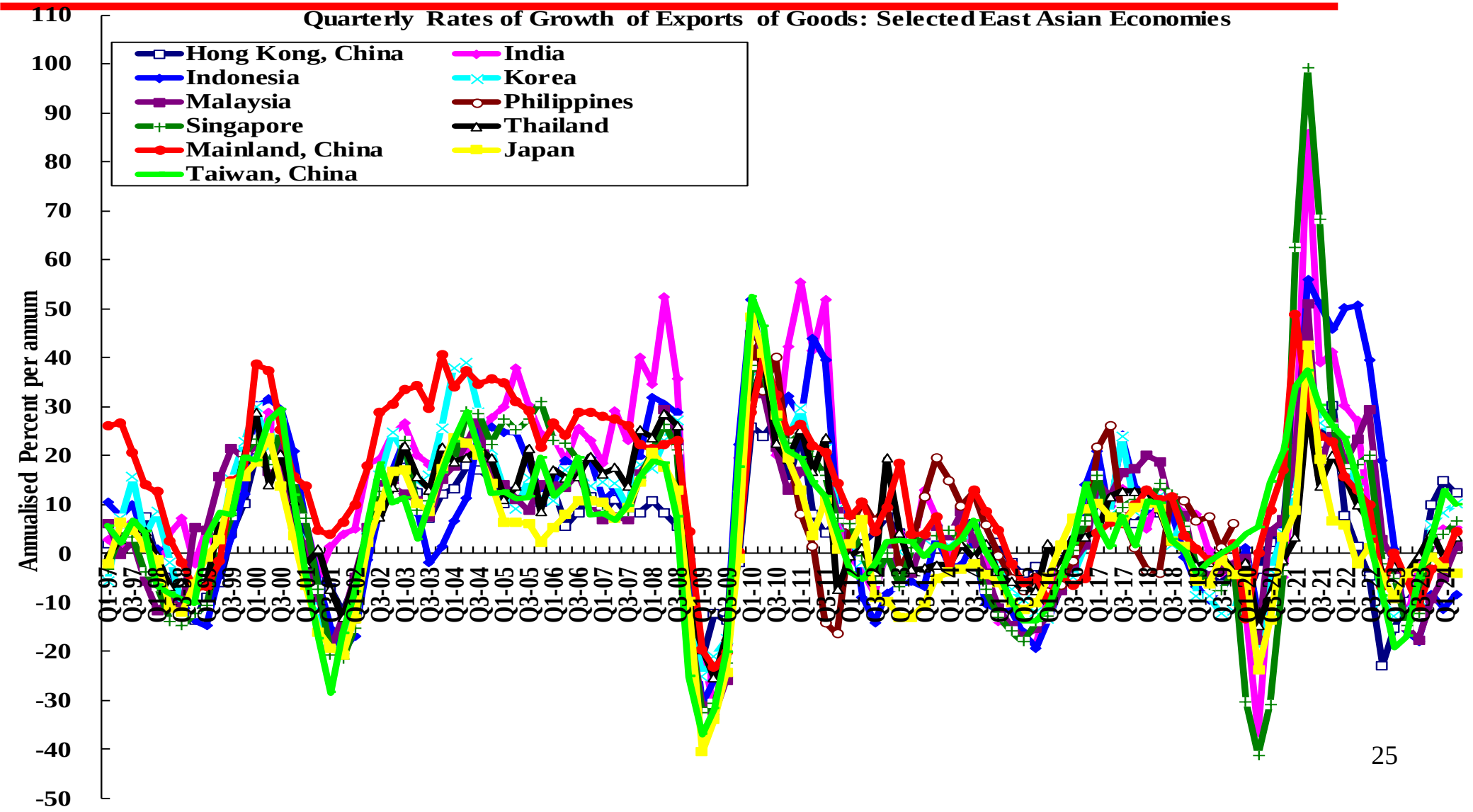
China's R&D Expenditure and Its Share of Chinese GDP



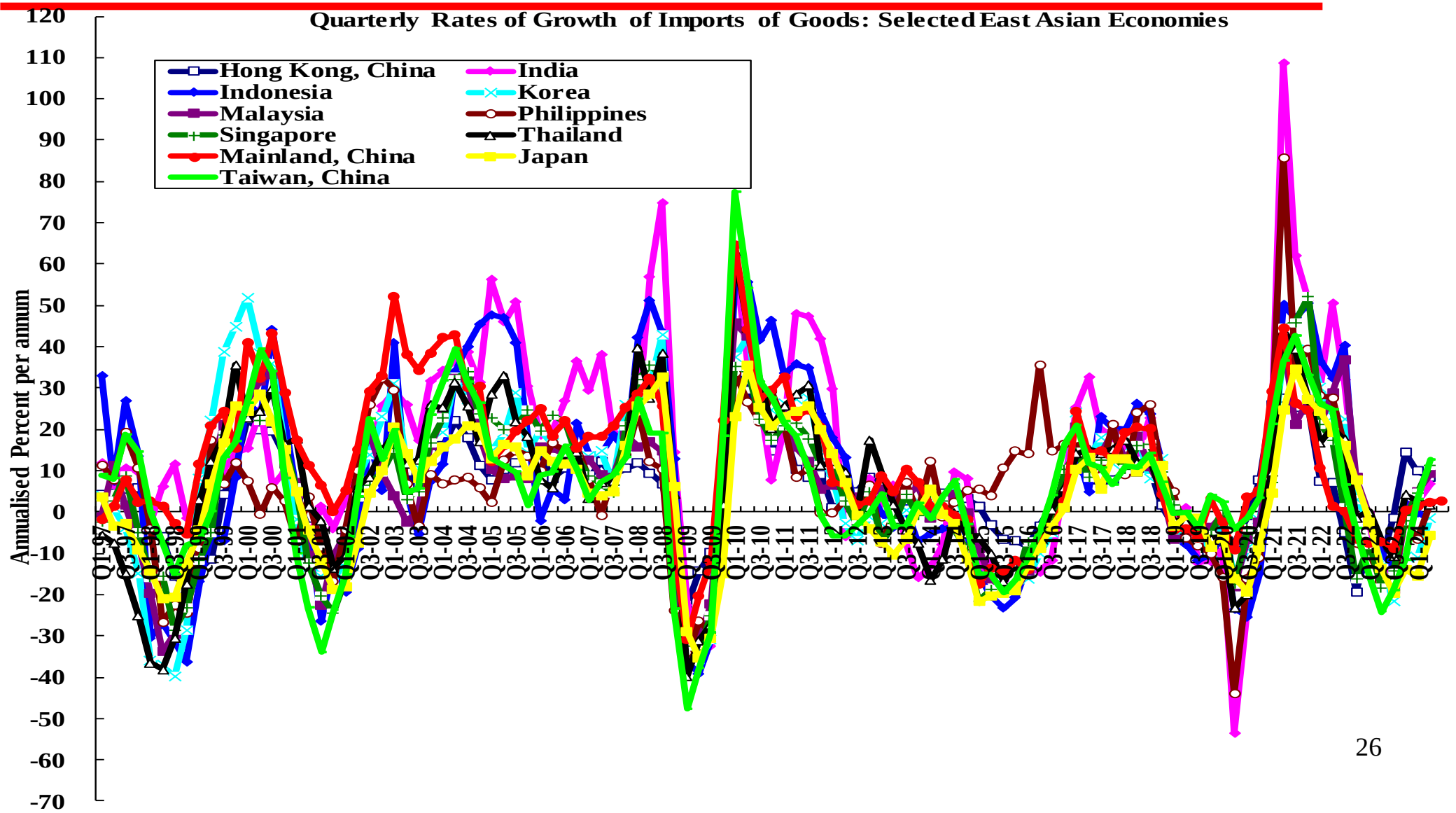
The Chinese Economic Fundamentals: Unique Advantages of the Chinese Economy

- The economies of scale and the benefits of "learning by doing," which result from the size of its economy, including its population, are not found elsewhere, except for India and possibly Indonesia. Given the same rates of growth of the measured inputs of tangible capital and labour, an economy with significant economies of scale will grow faster than an economy with constant returns to scale.
- The large geographical footprint of China also implies that there is adequate diversity in terms of climate and natural resources so that overall, it can be more self-sufficient and less vulnerable than otherwise (except that the bulk of its oil and gas has to be imported).
- The large size of the Chinese economy and hence its domestic market also reduces its degree of dependence on international trade and helps to insulate it from the impacts of external disturbances. As a large, continental economy just like the U.S., the Chinese economy today is not significantly affected by external disturbances. Thus, while the Chinese rates of growth of exports and imports fluctuate like other Asian economies, the rate of growth of its real GDP has remained relatively stable (see the red lines in the following charts).

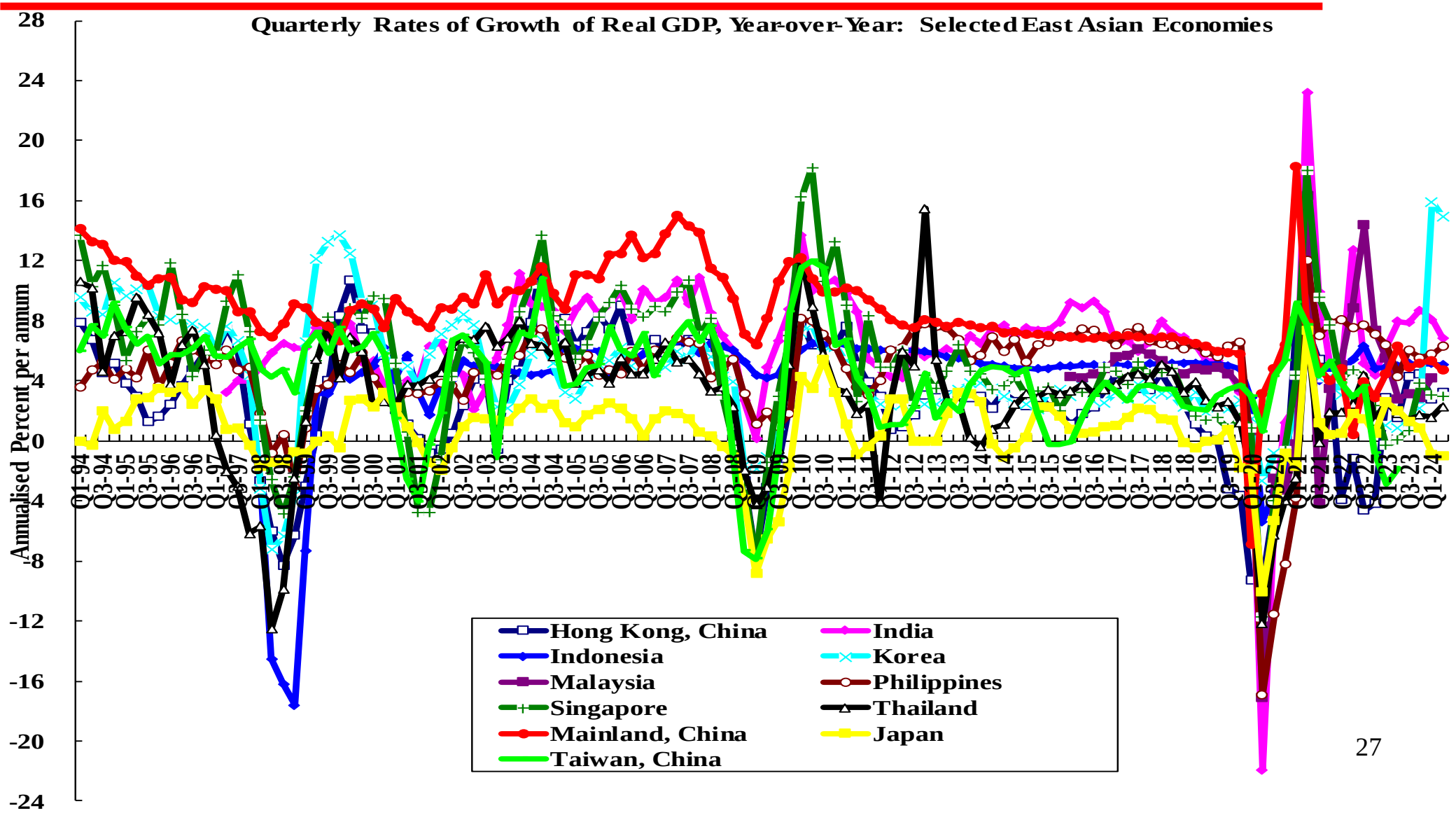
Quarterly Rates of Growth of Exports of Goods: Selected Asian Economies, 97-24Q3



Quarterly Rates of Growth of Imports of Goods: Selected Asian Economies, 97-24Q3



Quarterly Rates of Growth of Real GDP, Y-o-Y: Selected Asian Economies, 97-24Q3



The Chinese Economic Fundamentals: Unique Advantages of the Chinese Economy

- The initial economic slack in the economy resulting from its legacy as a centrally-planned economy was an advantage that most other economies, in or out of East Asia, did not have.
- The Chinese economy also has the advantage of relative backwardness. It has been able to learn from the experiences of successes and failures of other economies and to leapfrog and bypass stages of development (e.g., the telex machine, the VHS videotape player, the fixed landline telephone, and the personal checking bank account are all mostly unknown in China).
- It is therefore possible for the Chinese economy to have "creation without destruction" (e.g., the cellphone did not have to compete with the fixed landline phone; online virtual stores such as Taobao did not have to destroy brick and mortar bookstores that did not exist in the first place; internet payment services such as Alipay and WeChat Pay serve the needs of a population with no prior personal checking bank accounts). Thus, the adoption of innovation in China has been faster, with lower costs and higher net benefits than in other more mature economies.

The Economic Strategies, Policies, and Measures: Marketisation and Autonomy

- The core of the Chinese domestic economic reform consisted of two inter-related elements: **marketisation** (the introduction of free markets) and the granting of **autonomy** to the producers, conditional on their prior fulfillment of their obligations under the original central plan. The latter is a critical requirement because that is precisely what made the transition from a centrally-planned to a market economy so smooth, without creating any "losers". Basically, everyone's prior interests are protected. However, everyone also has the opportunity to do better if he or she takes advantage of the new economic freedom.
- For example, the original grain delivery obligations of the communes were continued, but devolved to the individual household level. This ensured the food supply to the urban areas, without a major increase in the prices. However, the agricultural households were free to produce whatever they chose after fulfillment of their delivery obligations. Moreover, they were allowed to purchase grain on the free market to fulfill their delivery obligations.

The Economic Strategies, Policies, and Measures: Reform without Losers

- The simultaneous parallel operation of the central plan and the free market is known as the **"dual-track"** approach. Thus, each good had two prices, a price under the central plan, which applied to all and only intra-plan transactions, and a free market price, determined by market supply and demand. However, since the quantities of intra-plan transactions under the central plan were fixed, and purchases and sales of goods at the market prices were freely allowed, the economy could actually achieve full economic efficiency.
- As the central plan continued to operate and be enforced, no one was worse off compared to before the economic reform. However, note that the Central Government must maintain the power and the will to enforce the intra-plan transactions. That is what makes possible "Reform without Losers".

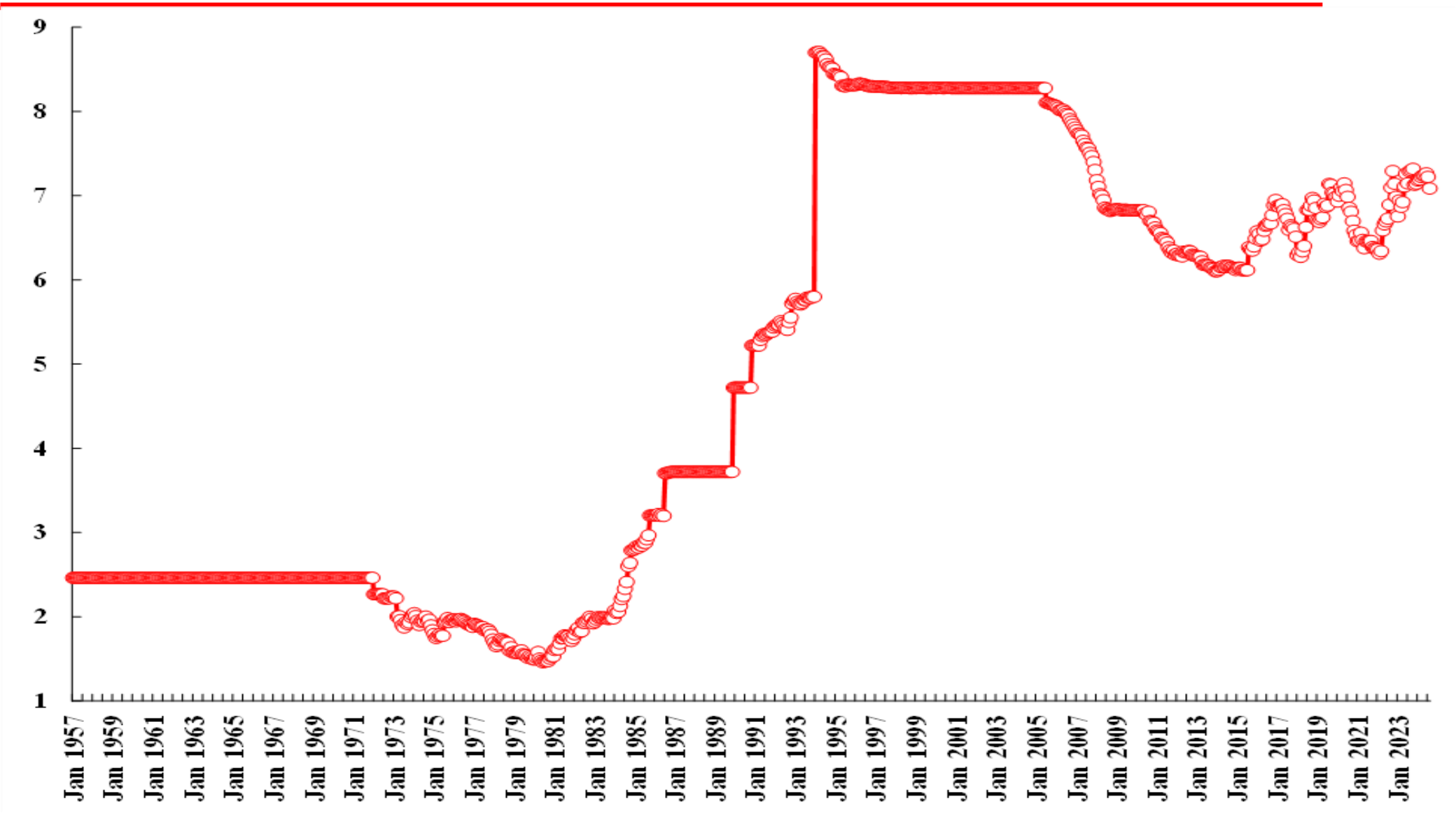
The Economic Strategies, Policies, and Measures: Commonalities with East Asians

- The Chinese development experience also shares many commonalities with those of other East Asian economies, in terms of initial endowments (or lack thereof), initial conditions (such as the existence of surplus agricultural labour), cultural characteristics (high savings rates, industriousness, and high value for education).
- They also have similar economic strategies and policies (export promotion, investment in basic infrastructure, and maintenance of macroeconomic stability).
- They also have the predictability, stability, and long-term orientation of development policies that result from continuous single-party rule during the early, take-off stages of their respective economic development.

The Economic Strategies, Policies, and Measures: Opening Up the Chinese Economy

- Opening up the Chinese economy means allowing international trade and foreign direct investment (initially only inbound). To enable the export promotion strategy, the renminbi exchange rate was devalued significantly and the renminbi was made current-account convertible in 1994. However, there remain controls on inflows and outflows of capital. After long and arduous negotiations, China finally acceded to the World Trade Organization in 2001, which was pivotal to her economic success. China has managed to become, simultaneously, the "world's factory" as well as the "world's market".
- However, in the initial opening, the "grandfathering" principle was largely followed so as to protect the vested interests. For example, foreign-invested enterprises were not allowed to purchase inputs or sell their outputs domestically so as to minimise their impacts on the domestic economy. Almost all of them were located in special economic zones and doing mostly "processing and assembly (来料加工)" operations. For another example, universities were compensated for the change in the exchange rate so that they could continue to buy the same quantities of foreign books as before.
- Domestic real estate development did not become important in China until after 2003.

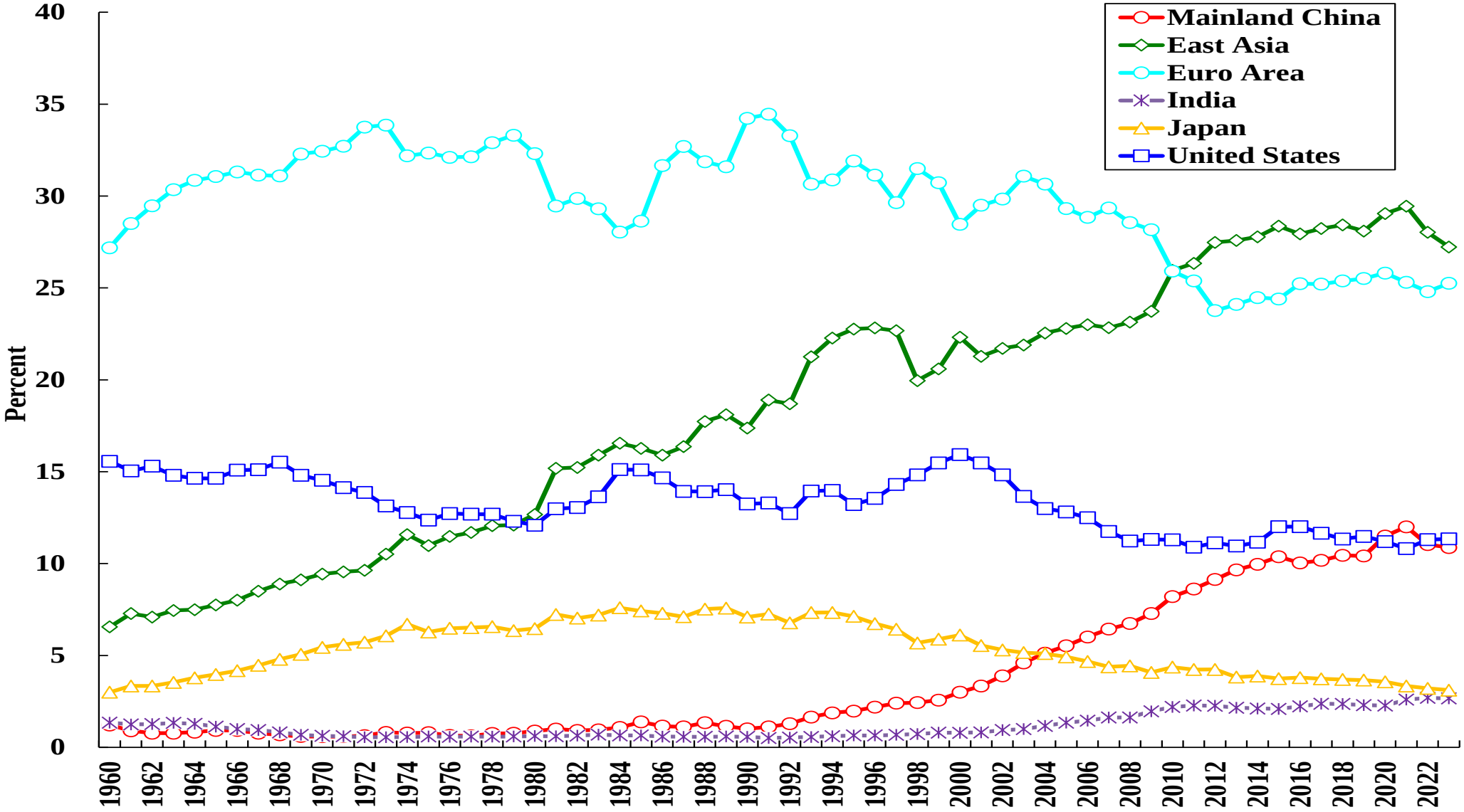
The Nominal Exchange Rate of the Renminbi, Yuan/US$, 1957-present



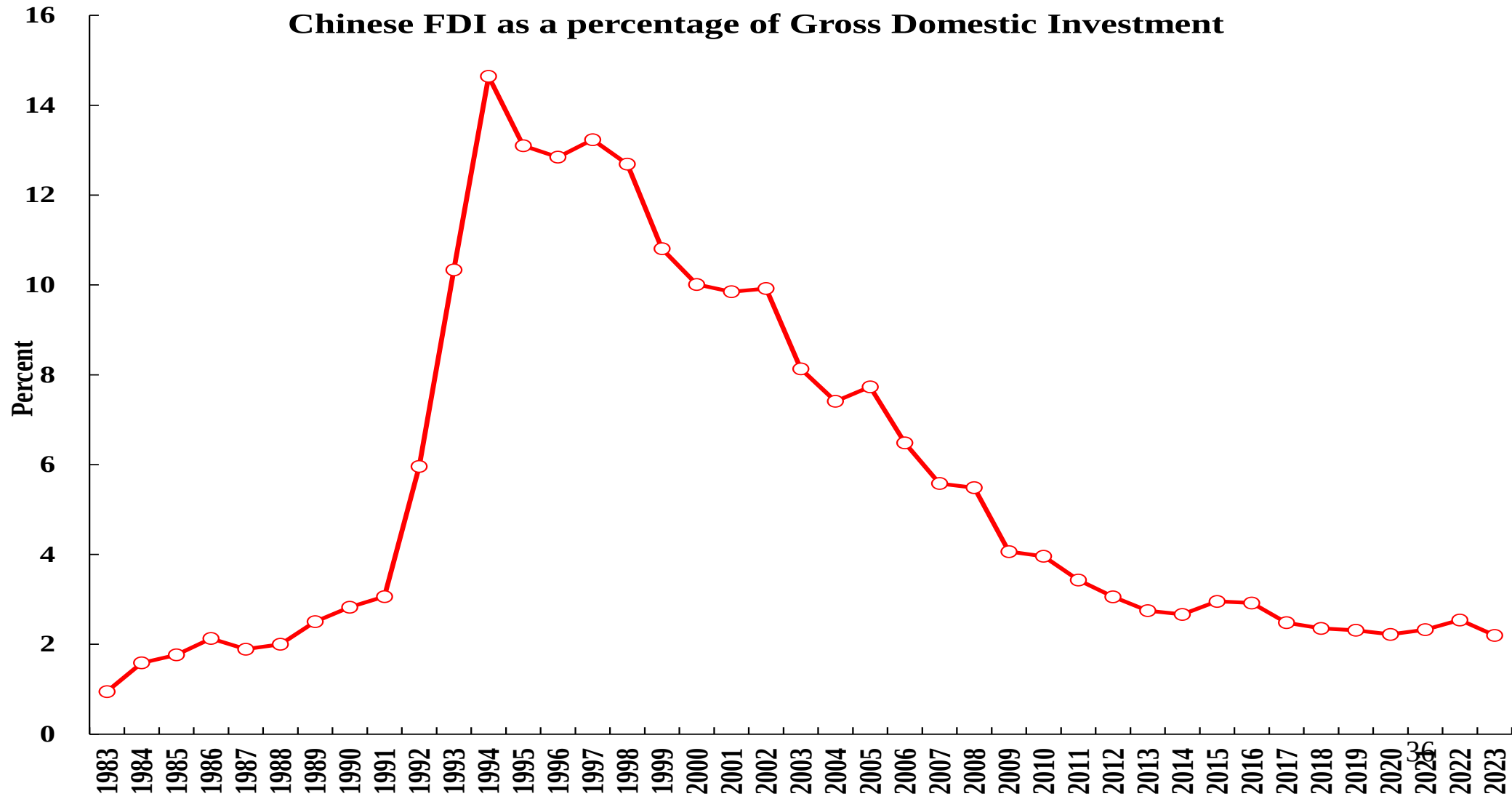
Opening Up the Chinese Economy: International Trade and Foreign Direct Investment

- In 1960, the United States and the Euro Area together accounted for almost 43% of the value of total international trade in goods and services in the world. By 2023, the combined share of United States and the Euro Area in world trade had declined to 36.6%. During this period, the share of the U.S. in world international trade in goods and services declined from 15.6% to 11.3%; and the share of Mainland China rose from 1.2% to 10.9%.
- During the same period, the share of East Asia as a whole rose from 6.6% to over 27%, surpassing the Euro Area. Chinese international trade accounted for 40% of East Asian international trade in 2023.
- At its peak in 1994, foreign direct investment accounted for almost 15% of Chinese gross domestic investment. It has since declined steadily to 2.2% in 2023, including "round-tripped" FDI.

The Shares of China, East Asia, the Euro Area, India, Japan & the U.S. in World Trade, 1960-2023



Foreign Direct Investment as a Percent of Chinese Gross Domestic Investment



The Economic Strategies, Policies, and Measures: Investment in Basic Infrastructure

- Basic infrastructure, such as communication and transportation networks, ports and airports, and power plants, are absolutely essential in the early stage of economic development.
- The Chinese economic policy makers have a long time-horizon and a single-minded focus on economic growth. With a long enough planning horizon, one can afford to undertake investment in development-leading infrastructure, that is, infrastructure the demand for which has not yet materialised but can be created by the supply itself, infrastructure that may take a long time to pay off or pay off only through externalities. But very often "supply creates its own demand"! Such investment can stimulate demand and further development, but because of its typically long payback periods and inability to internalise the benefits, is unlikely to be undertaken by private enterprises.
- As an example of such basic infrastructure, consider the high-speed railroad network that has been built in China in the last two decades.

The Economic Strategies, Policies, and Measures: The "Low-Wage" Policy

- The pre-existing economic policy of low wages in the non-agricultural sector was not significantly modified under the economic reform. In addition, a new population policy, the "one-child" policy, was introduced in 1979 and implemented in 1980.
- Prior to 1978, all workers in the non-agricultural sector were employed, directly and indirectly, by the state, which could unilaterally dictate the wage rate and other conditions of employment. A low-wage policy would minimise aggregate household income and hence consumption and maximise the profits of state-owned enterprises (SOEs), which would in turn help to keep the national savings rate high. Moreover, a continuing low wage rate in the non-agricultural sector would enhance its capacity to absorb the continuing inflow of the surplus labour from the agricultural sector and put it to much higher productivity use in the non-agricultural sector.
- A high national savings rate, supported by the low-wage policy. in turn enables a high domestic investment rate, without having to rely on the fickler inflows of foreign investments, foreign loans, or foreign aid. And to the extent that the savings are under the control of the central government, they can be used to finance investments in basic infrastructure.

The Economic Strategies, Policies, and Measures: The "Low-Wage" Policy

- Moreover, with the availability of fresh domestic savings for new investments every year, there is no pressure to restructure or privatise the existing, almost all state-owned, enterprises, which would have been both economically and socially disruptive. It is interesting to note that in neither Mainland China nor the economies of Taiwan and South Korea in earlier times, was there any systemic privatisation of state-owned enterprises, as in the former Soviet Union and the formerly socialist Eastern European countries during their transitions to market economies. This was possible, in part, because of their respective high domestic saving rates.
- Although many state-owned enterprises eventually became publicly listed companies on stock exchanges in Hong Kong, Shanghai, and Shenzhen, in almost all such cases, the government retains a majority stake and management control. There was no privatisation of control. The Chinese government wants to retain state-owned enterprises as one of its instruments for the control of the economy and the implementation of social policies, such as environmental preservation, protection and restoration, and poverty alleviation. Despite the preference for state ownership, the private sector in China has grown rapidly since the economic reform in 1978 to account for 88 percent of its urban employment and 95 percent of its total profits in 2021. There was, by and large, no serious aversion to private ownership of the means of production, but a serious fear of the emergence of a plutocracy, or nomenklatura as in the former Soviet Union.

The Economic Strategies, Policies, and Measures: The "One-Child" Policy

- The "One-Child" policy, a population planning policy of China which mandated that each married couple could have only one child (effectively one birth, but there could be twins, triplets, etc.) was adopted in 1979, almost concurrently with the beginning of the economic reform, and implemented in September 1980. The policy remained in force until the beginning of 2016.
- It has had a large impact on the population trajectory of China. Without the "one-child" policy, the Chinese population would have been at least a couple of hundred millions larger today, implying much higher aggregate household consumption, a lower national savings rate, a greater demand for social services, slower GDP growth, lower real GDP and real GDP per capita, higher unemployment, higher prices for food and other necessities, and much greater damage to the environment. However, the demise of the "one-child" policy was also timely, perhaps even slightly overdue, as the Chinese working-age population had begun to decline, the Chinese society had begun to age, and the Chinese dependency ratio had begun to rise.

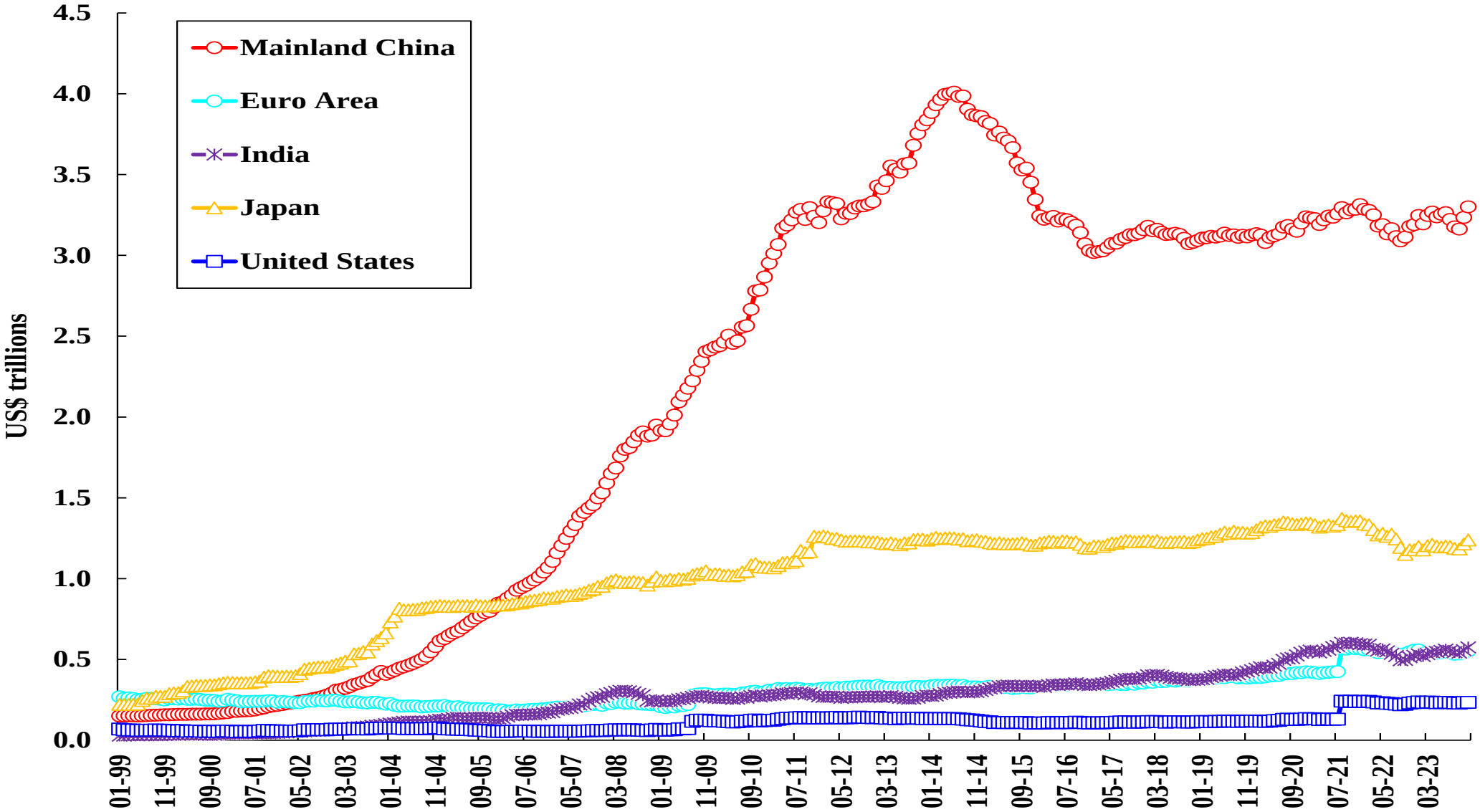
Crossing the River by Feeling the Stones at the Bottom (摸著石頭過河)

- It would be wrong to think that there was an overall comprehensive blueprint for Chinese economic reform and opening to the world from the very beginning. As Mr. Deng Xiaoping, the late Chinese paramount leader, famously said, the process of Chinese economic reform was like “crossing the river by feeling the stones at the bottom” (摸著石頭過河).
- There was a great deal of uncertainty as to the right path. Trial and error was the norm, pragmatism was the guide, and adaptability would be widely practised. It was also not at all clear what would be found on the other side of the river. What was clear was that staying on the existing side was not a viable option.

The Internationalisation of the Renminbi

- The renminbi has been a current-account convertible currency since 1994, after a series of significant devaluations. Its value comes from the renminbi's purchasing power over Chinese goods, services and assets. In fact, offshore renminbi is fully convertible in Hong Kong. China's capital controls only apply to certain capital flows into and out of Mainland China.
- China today has the world's largest foreign exchange reserves, at approximately US$3.2 trillion, followed by Japan with approximately US$1 trillion. The central banks of Japan and China are also the largest and second largest holders of U.S. Treasury and Agency securities respectively.
- If bilateral cross-border transactions between two countries can be settled in their own national currencies rather than in a third-country currency like the U.S. Dollar, the transaction costs and the exchange rate risks are both reduced, because only one currency exchange is required and hence there is only one exchange rate risk. If the settlement is made in a third-country currency, two currency conversions are required, doubling the transaction costs, and exchange rate risks are incurred by both the exporter and the importer. Thus, own-currency settlement benefits both the exporting and the importing country.

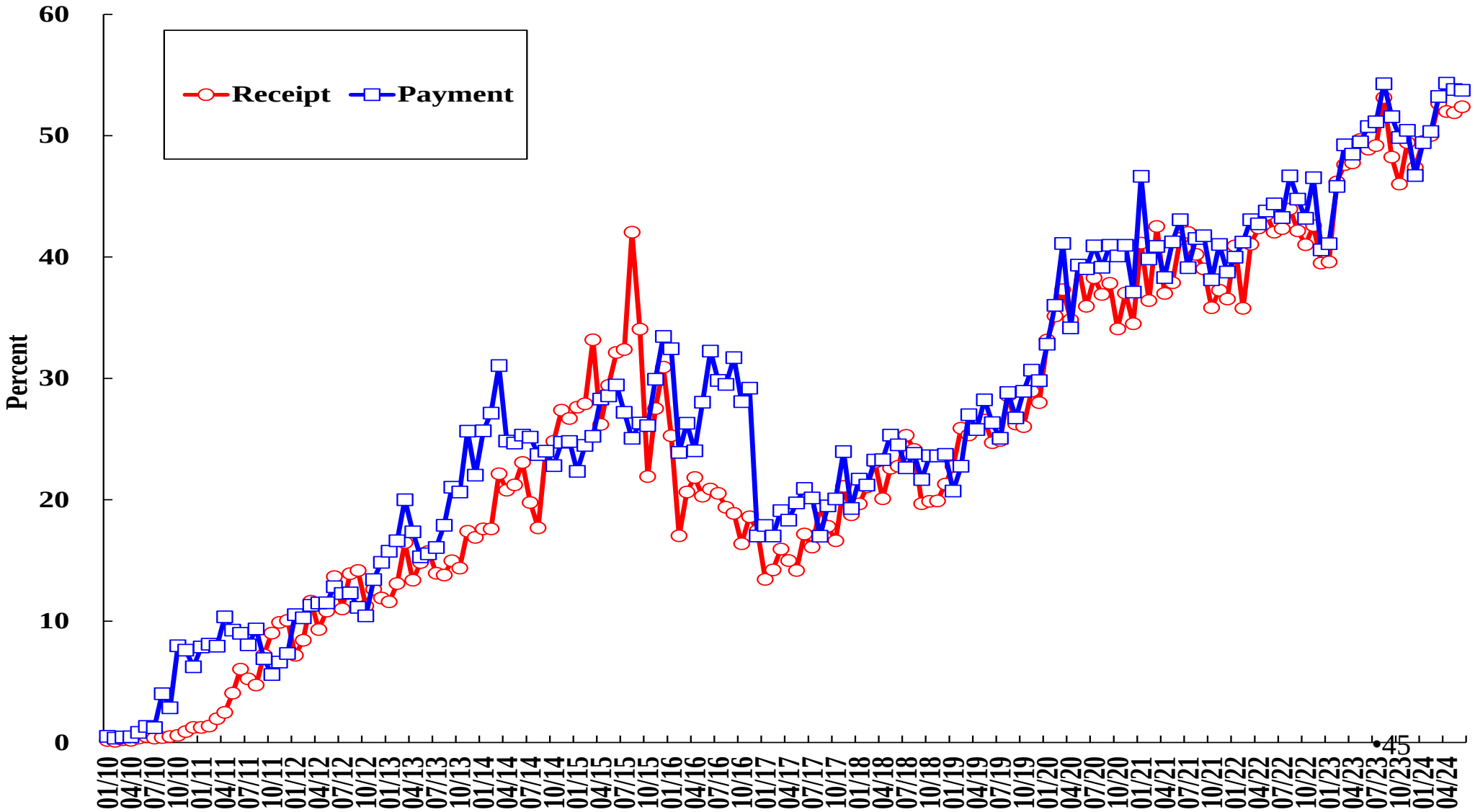
Total Foreign Exchange Reserves minus Gold: Selected Economies



The Internationalisation of the Renminbi

- Before 2010, almost all of China's foreign-related transactions, including international trade and inbound and outbound foreign direct and portfolio investment, were settled in U.S. Dollar.
- The share of renminbi settlement began to rise from zero in 2010 and reached a peak of approximately 40% in mid-2015. However, a sudden and unexpected devaluation of the renminbi coupled with a large decline in the Chinese stock market led to a retreat from renminbi settlement. It took about five years for the share of renminbi settlement to recover to the level of 40%. Since then, the share of renminbi settlement has continued to rise and currently stands at around 50% (see chart).
- The main impetus for the wider use of the renminbi in world settlement comes from the fact that international trade between China and many of its trading partner countries is increasingly settled in each other's own national currencies.

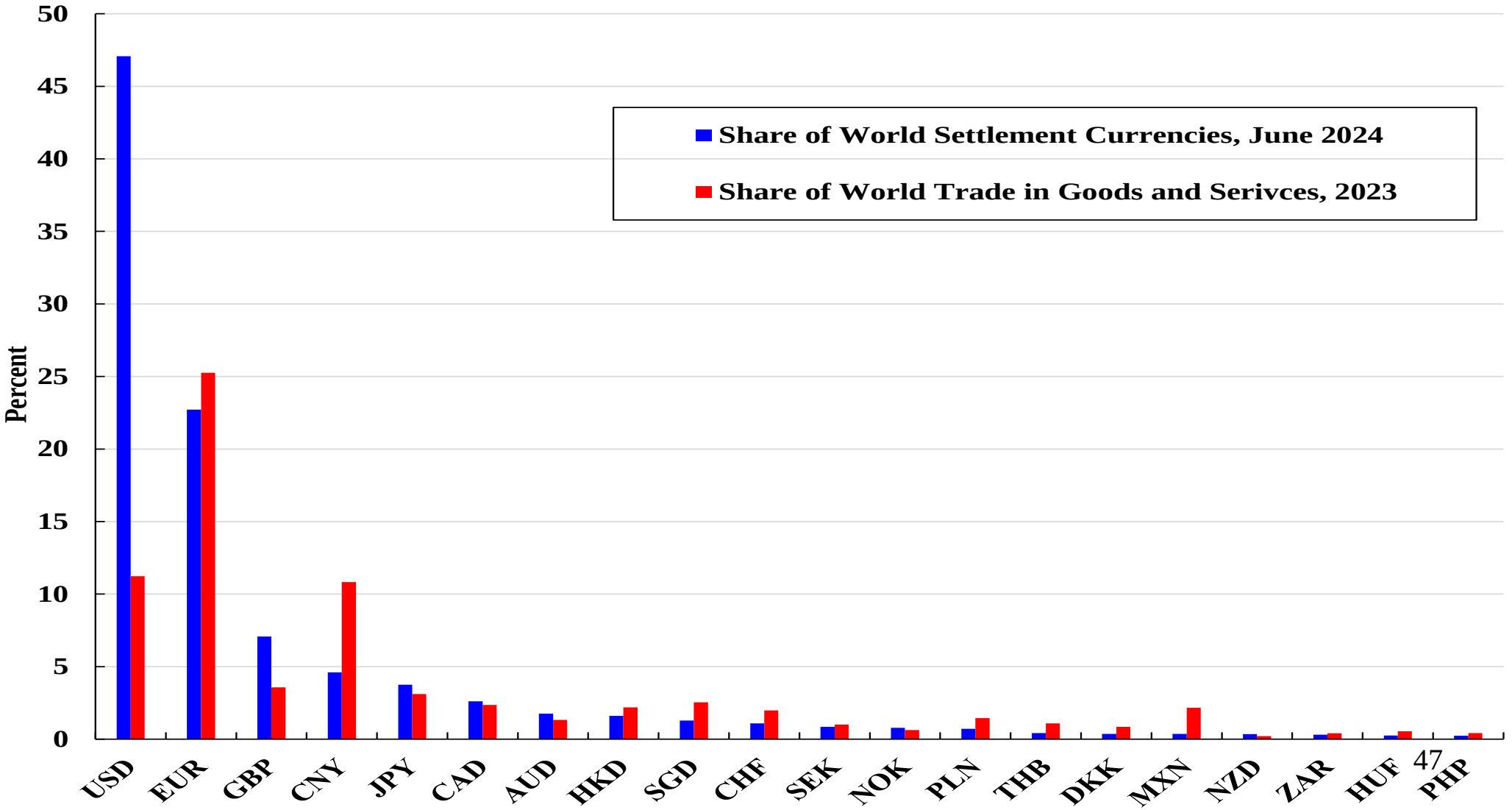
The Share of Renminbi Settlement in Mainland China's Foreign-Related Transactions



The Internationalisation of the Renminbi

- In the following chart, we compare the share of world settlement of the currency of a country or region (blue column) in June 2024, with the share of world trade in goods and services of that country or region (red column) in 2023 (this is because the 2024 world trade data are not yet complete).
- In 2023, the Euro Area accounted for the largest share of world trade in goods and services, 24.6%, followed by the U.S, with 11.3%, and the Mainland China, with 11.1%. (We note that these shares are sensitive to changes in exchange rates.)
- In June 2024, the U.S. Dollar accounted for the largest share of world settlement, at 46.6%, the Euro accounted for 23.0%, and the British Pound accounted for 7.1%. The renminbi share in world settlement had been increasing rapidly, from 2.3% in March 2023, to 3.1% in July 2023, 4.1% in December 2023 and 4.5% in January 2024 to become the fourth most frequently used settlement currency. The Japanese Yen was in fifth place, accounting for 3.6%. We note that for the U.S. Dollar, the British Pound and the Japanese Yen, their shares of settlement were all higher than the respective shares of these countries in world trade. The share of renminbi in world settlement is likely to continue to grow but is not expected to catch up to the U.S. Dollar any time soon.

Share of World Settlement versus 2023 Share of World Trade, June 2024



The Sources of Chinese Economic Growth: Chinese Economic Growth is Not Inexplicable

- What are the sources of this unprecedentedly high and sustained rate of economic growth? Can the Chinese economic growth of the past 45 years be understood in conventional economic terms?
- Of course, one obvious explanation for the high rate of growth of real output is the high rates of growth of the primary inputs—tangible capital and labour. Their rates of growth have indeed been high for China, both before and after the economic reform of 1978.
- However, high rates of growth of inputs alone do not always guarantee success in achieving a sustained high rate of growth of real output, in the absence of appropriate facilitating and supporting government economic policies. Many developing economies have had high rates of growth of inputs but nevertheless have not been able to grow in a sustained and sustainable manner. The economy of the former Soviet Union was such an example. The economic strategies adopted and the economic policies and measures implemented can and do make a difference.

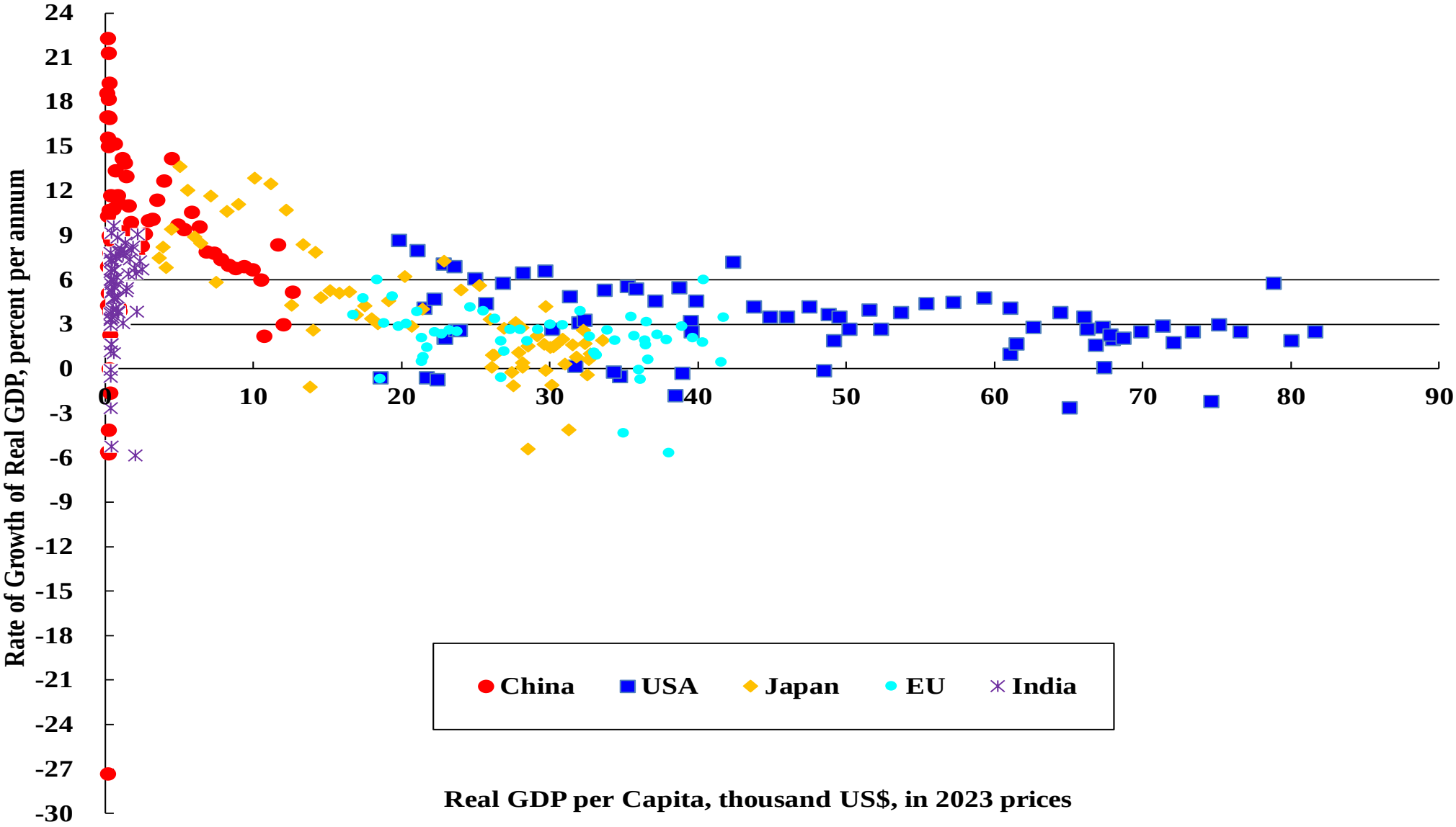
The Sources of Chinese Economic Growth: Chinese Economic Growth is Not Inexplicable

- The growth in Chinese real output may be mostly attributed to the growth of Chinese inputs,
- The most important source of growth turns out to be the accumulation of tangible or physical capital, that is, structures (including basic infrastructure) and equipment, accounting for 55.7 percent. The growth of labour accounted for only 9.7%.
- Economies of scale accounted for 14.0%, technical progress, or the growth of total factor productivity, accounted for 8.0%.
- One surprising source is the elimination of the initial economic inefficiency due to the central-planning system prior to the economic reform, which accounted for 12.7%, with most of it realised before 2000.

The Long-Term Prospects of the Chinese Economy

- We conclude with some projections of the Chinese economy to 2050. The Chinese economy is subject to the same economic laws as other economies. It is an empirical regularity that as the real GDP per capita of an economy rises, the real rate of growth of its measured real GDP will fall. There are many different reasons why this is the case. One of the most important reasons is that many of the benefits of economic development, such as increased leisure and reduced work hours, blue skies, green hills, and clean water, enhanced educational opportunities and life expectancies, do not command positive market prices and are therefore not adequately reflected in a conventionally measured real GDP.
- In the following chart, the real rates of economic growth of Mainland China (red), the Euro Area (turquoise), India (purple), Japan (yellow) and the U.S. (blue) are plotted against their respective real GDPs per capita's (all measured in 2023 US$). As expected, there is a negative relationship between the rate of growth of real GDP and the level of real GDP per capita. (Data for the Euro Area as a whole only go back to 1970 and miss the earlier high-growth periods of the 1950s and 1960s.)

Rate of Growth of Real GDP vs Real GDP per Capita: China, Euro Area, India, Japan, U.S.A.



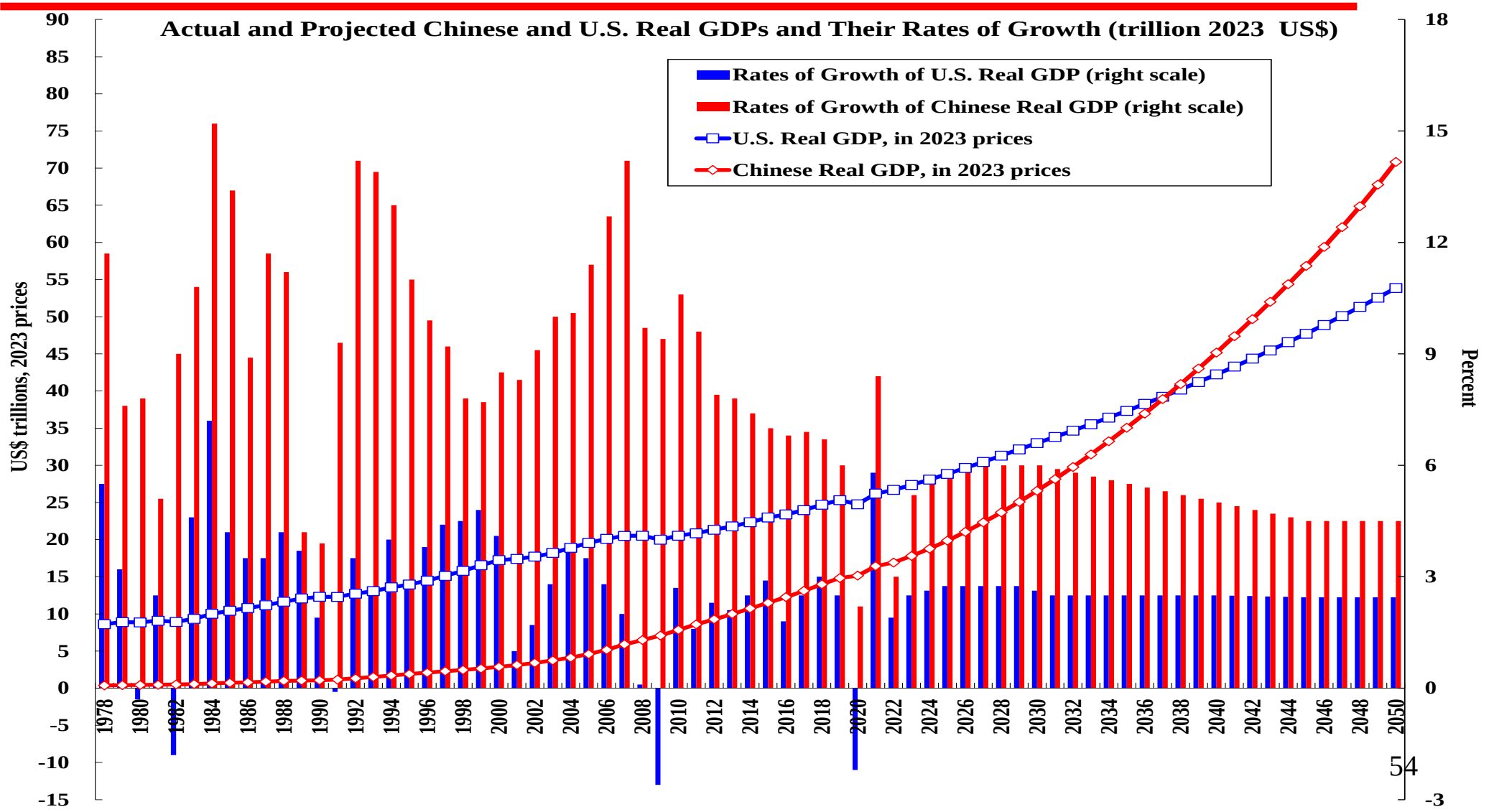
The Long-Term Prospects of the Chinese Economy

- We note that China, with a real GDP per capita of US$12,626 in 2023, is currently still operating in the range that permitted average annual rates of growth much higher than 6% for the Euro Area, Japan and the U.S. in their respective earlier periods. The real GDP per capita of the U.S. was US$81,610 in 2023, with its economy operating within a range below 3% average annual rate of growth. India, with a per capita real GDP of less than US$2,500 in 2023, still operates in the high-growth range.
- Perhaps when Chinese real GDP per capita reaches US$30,000 in 2023 prices, projected to occur around 2040, the Chinese average annual real rate of economic growth will begin to decline to below 5%.

The Long-Term Prospects of the Chinese Economy

- Over the next decade, China's economy will continue to grow faster than North America and Europe. The assumptions are that the Chinese real GDP will continue to grow at an average annual rate between 5% and 6% and that the U.S. real GDP will grow at an average annual rate of 3%, similar to its experience in the past few decades. My personal forecast is that by 2038, real GDP on the Chinese Mainland will reach US$40.9 trillion at 2023 prices, slightly higher than the US$40.2 trillion of the United States. Even so, the projected Chinese real GDP per capita, US$28,367, would still be not quite one quarter of the real GDP per capita of the United States, US$114,232, at that time.
- Given that the Chinese population is almost four times the U.S. population, it is inevitable that the Chinese real GDP will exceed the U.S. real GDP if there is continuing improvement in the average standard of living of the Chinese people.

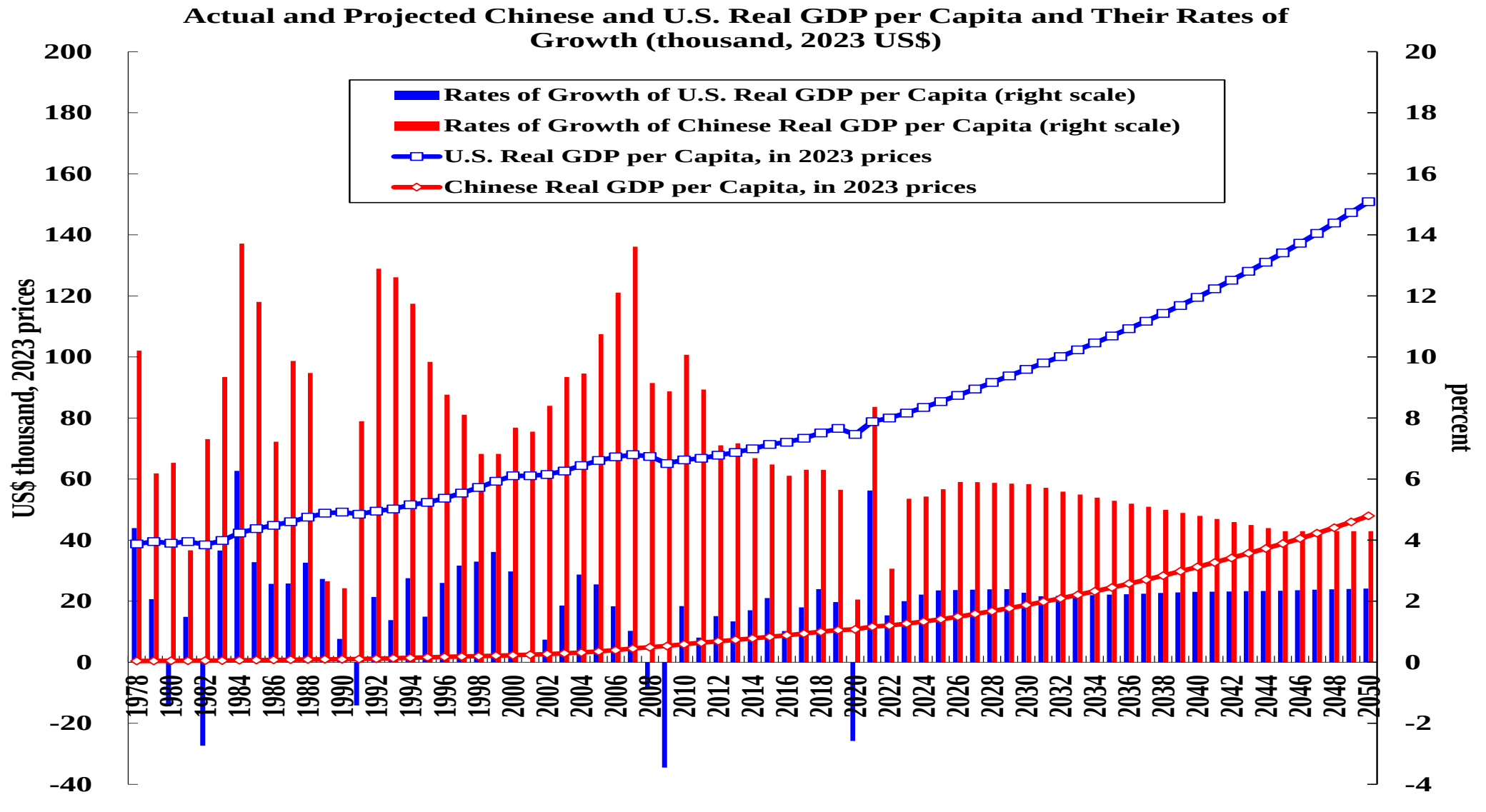
Actual and Projected Chinese and U.S. Real GDPs and Their Rates of Growth (2023 US$)



The Long-Term Prospects of the Chinese Economy

- In fact, in which year Chinese real GDP will catch up with the U.S. real GDP is also very much related to the exchange rate of the renminbi versus the US$. In March 2023, the exchange rate of the renminbi against the US$ was 6.32 Yuan per US$. At yearend 2023, the exchange rate of the renminbi against the US$ was 7.08 Yuan per US$, a difference of 12%. That is why at 2023 prices and exchange rate, the Chinese real GDP is projected to catch up with the U.S. real GDP in 2038, much later than my previous forecasts in the book.
- Of course, in terms of Purchasing-Power-Parity (PPP) international prices, Chinese GDP already reached parity with U.S. GDP in 2014, a finding supported by both the International Monetary Fund and the World Bank.

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



The Long-Term Prospects of the Chinese Economy

- China's natural resources per capita, such as arable land, clean water, mineral deposits, etc., are far less than those of the United States, so it is not easy for its real GDP per capita to surpass that of the United States. If it can be done at all, it will likely be at the very end of this Century.
- As the China-U.S. strategic competition is likely to be the new normal in the next five to ten years, some degree of economic de-globalisation, de-coupling and de-risking is inevitable. In the short term, it will lower economic welfare in every economy. However, in the long term, when all is done and settled, the net result is likely to be greater resilience for the world economy, and perhaps even greater welfare for all. Moreover, as a large, continental economy just like the U.S., the Chinese economy today is not significantly affected by external disturbances.
- Domestically, China has shifted its emphasis from the quantity of growth to the quality of growth, in part through the expansion of the supply of public goods. This has led to sustained improvements in human capital, the environment, public health, and poverty alleviation. While investments in the quality of growth may lower the measured rate of growth of the real GDP somewhat, the overall outlook remains positive.
- Maintaining an adequate growth of aggregate demand is essential for continued Chinese economic prosperity.

Concluding Remarks

- While the Chinese economy is unique and exceptional in many ways, its development experience can be explained and attributed conventionally, as we have done. Is the Chinese economic success surprising? Yes. Welcome? Definitely. But miraculous? Not quite.
- It cannot therefore be said to be a **miracle**. It was the combined outcome of the economic reform and opening to the world in 1978 and the pragmatic strategies, policies and measures undertaken by generations of able and wise leaders.
- Moreover, the Chinese model for economic reform, which can enable a smooth economic transition from a closed centrally-planned to an open market economy, while at the same time allow the existing government to retain political control and preserve social stability, has been adopted, and its success has been replicated to varying degrees, in the formerly centrally-planned economies of Vietnam, Cambodia, and the Lao People's Democratic Republic. A true miracle is a unique event that is not replicable.

Concluding Remarks

- The Chinese economy has also grown rapidly at an average annual rate of almost 9% during the past four and a half decades and is forecast to continue growing at average annual rates of between 5% and 6% going forward. Its growth has demonstrated durability and sustainability, and is therefore definitely not a bubble.
- Thus, the Chinese economy is **neither a miracle nor a bubble**. The Chinese model may also turn out to be potentially applicable for Cuba, North Korea, or other closed centrally-planned economies that may wish to transform into an open market economy.