The Great Transformation: East

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- Continuity of Governance
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Introduction

- East Asia as a whole accounts for not quite 30 percent of world GDP today.
- Professor Angus Maddison estimated that China accounted for 30 percent of world GDP in the 18th Century. In 1970, China accounted for approximately 3 percent of world GDP. Currently China accounts for approximately 15 percent of world GDP.
- Japan accounted for 18 percent of world GDP at its peak in the mid-1990s.
- China and India are the two fastest-growing large economies in the world today.

Introduction

- In the post-Second World War period, quite a few East Asian economies, beginning with Japan, reached developed economy status. They include the "newly industrialized economies (NIEs)" of Hong Kong, South Korea, Singapore and Taiwan, also referred to as the "four little dragons". They were followed, in turn, by the other ASEAN economies and by Mainland China, which are still in the process of becoming developed.
- In the early 1950s, the Philippines was widely tipped to be the economy that was most likely to become developed. In fact, at the time, the Philippines had the highest GDP per capita in all of East Asia, higher than even that of Japan. Today, the Philippines has one of the lowest GDP per capita in East Asia.
- **How did the East grow rich?**
- We begin by examining what East Asian economies have in common.

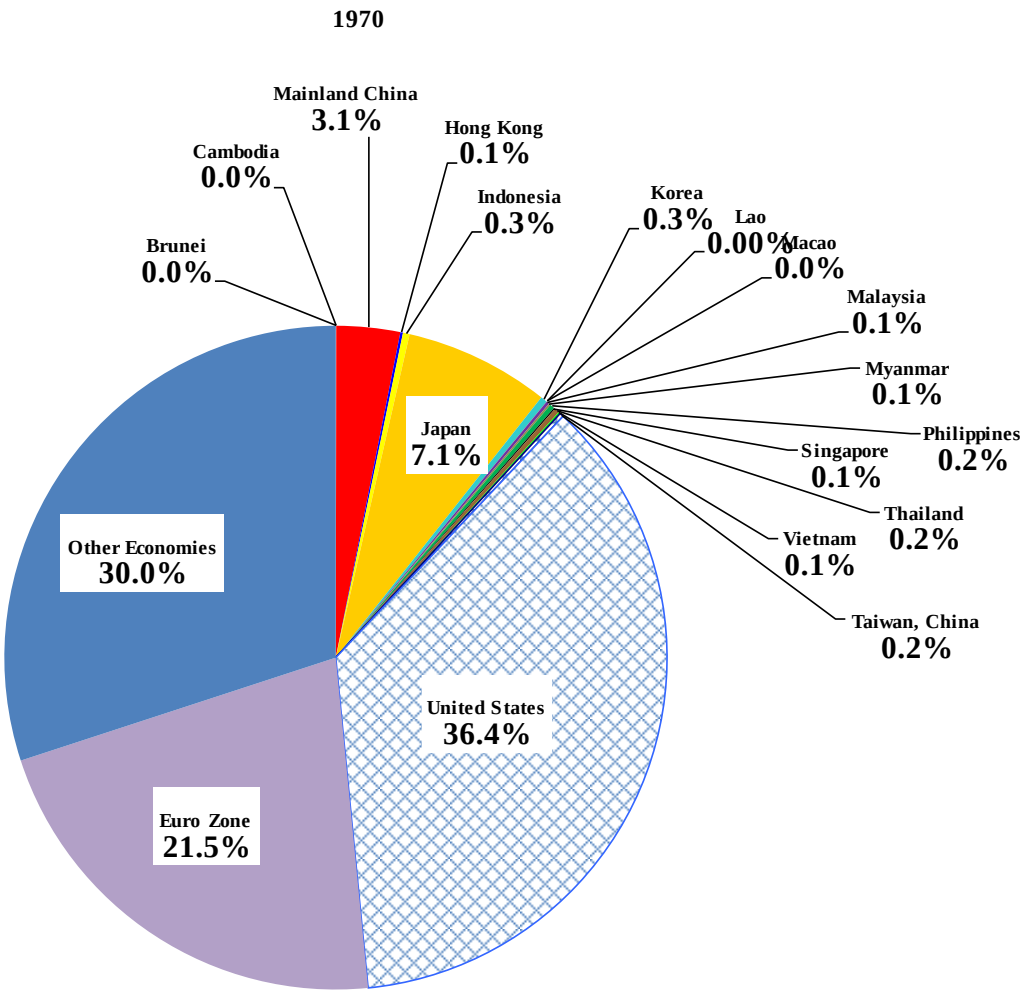
Introduction

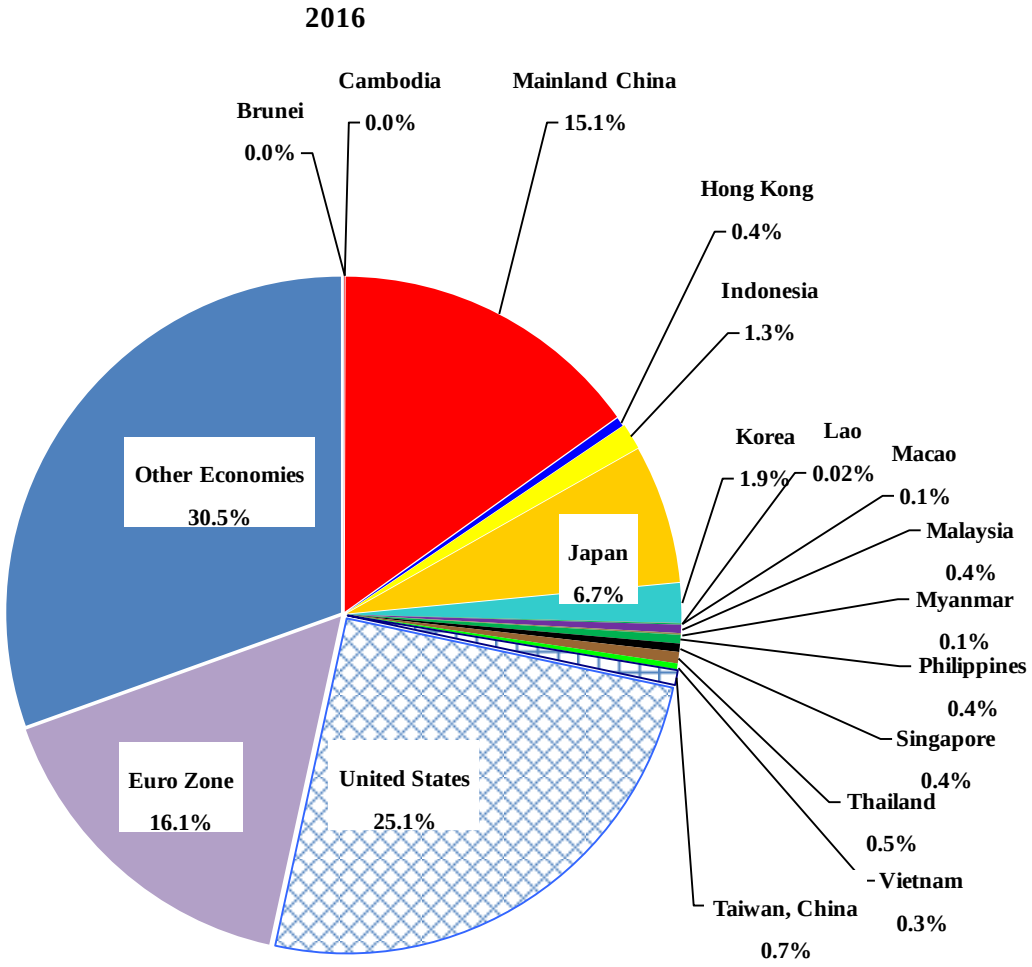
- All of these East Asian economies, beginning with Japan, adopted and implemented the economic development policy of export promotion. Export promotion turned out to be a successful policy for the then developing economies of East Asia because of the trade liberalization around the world, beginning with the Kennedy Round (1964-1967) of trade negotiations under the General Agreement on Tariffs and Trade (GATT), the predecessor to the World Trade Organisation (WTO).
- Taiwan was among the first, if not the very first, developing economy to explicitly adopt and implement the economic development policy of export promotion instead of import substitution. It proved to be highly successful in enhancing domestic savings and investment, attracting foreign direct investment, increasing employment and stimulating economic development. Subsequently, these policies were also widely and successfully emulated by many other developing economies such as South Korea, the ASEAN and Mainland China.

The Shifting Center of Gravity of the Global Economy--GDP

- In 1970, the United States and Western Europe together accounted for almost 60% of world GDP. By comparison, East Asia (defined as the 10 Association of Southeast Asian Nations (ASEAN)--Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam--+ 3 (China including Hong Kong, Macau and Taiwan, Japan and the Republic of Korea)) accounted for only approximately 10% of world GDP.
- By 2016, the share of United States and Western Europe combined in world GDP has declined to approximately 41% whereas the share of East Asia has risen to around 28%.
- The Japanese share of world GDP declined from a peak of almost 18% in the mid-1990s to 6.7% in 2016 while the Mainland Chinese share of world GDP rose from 3.1% in 1970 and less than 4% in 2000 to over 15.1% in 2016.

The Distribution of World GDP, 1970 and 2016, US$

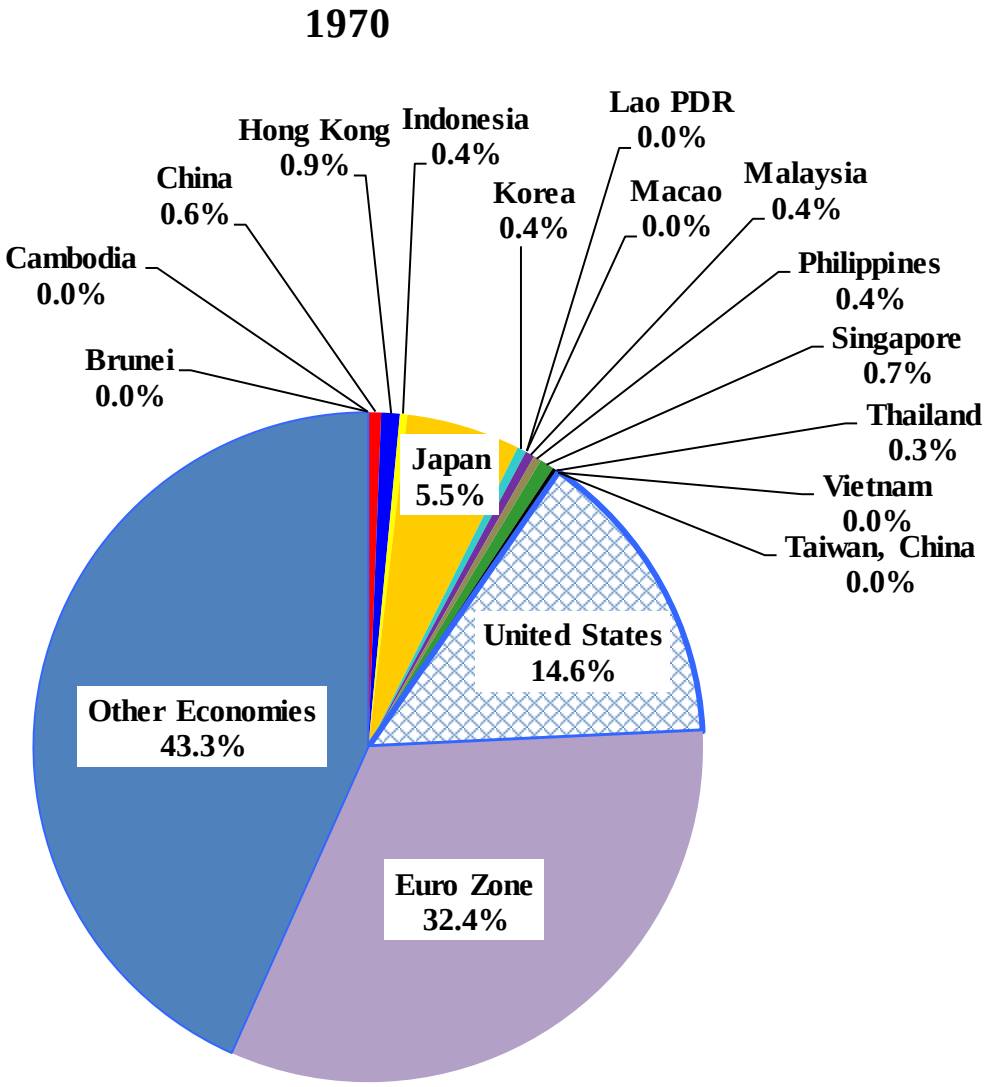


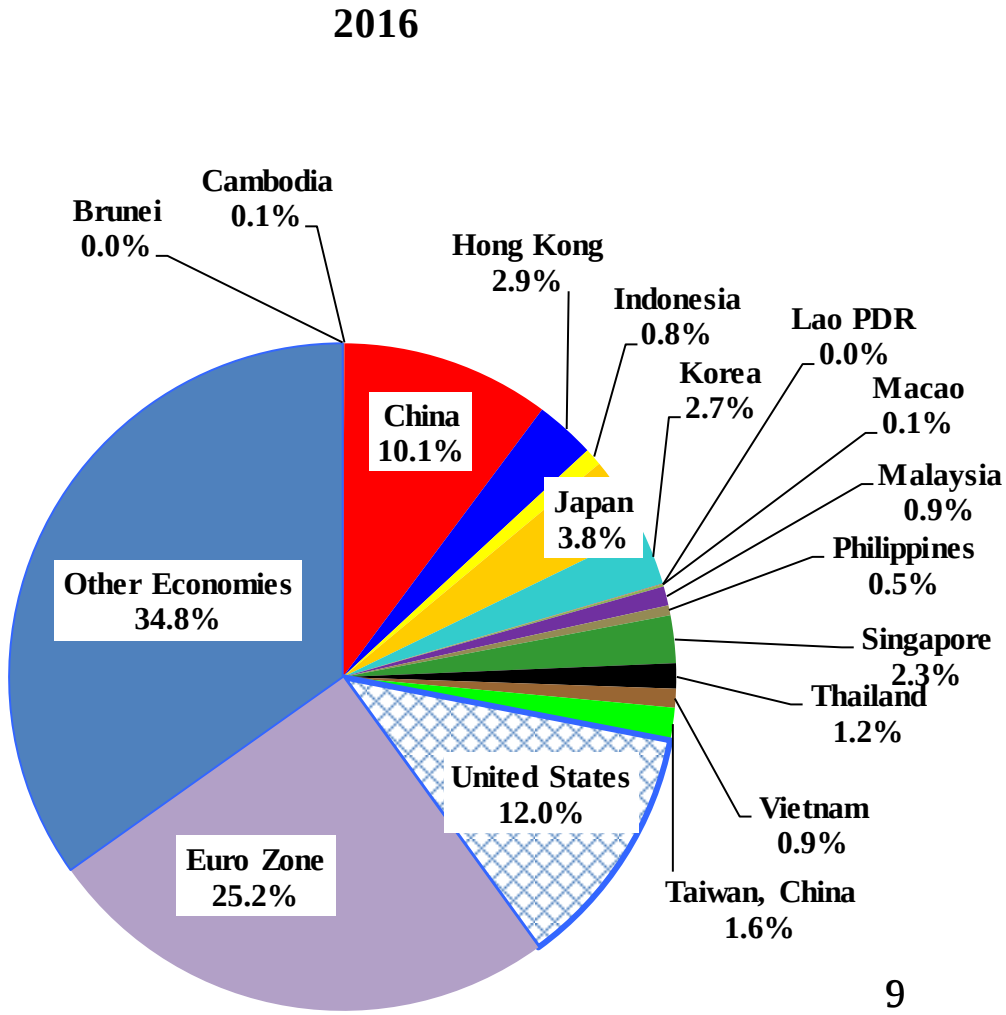


The Shifting Center of Gravity of the Global Economy—International Trade

- In 1970, the United States and Western Europe together accounted for 47% of world trade in goods and services. By comparison, East Asia accounted for 9.5% of world trade.
- By 2016, the share of United States and Western Europe combined in world trade has declined to 37.1% whereas the share of East Asia has risen to 28.1%.
- The Mainland Chinese share of world trade rose from 0.6% in 1970 to 10.1% in 2016. The growth in Chinese international trade may be attributed in part to adoption of current-account convertibility of the Renminbi by China in 1994, accompanied by a significant devaluation of the Renminbi, and to Chinese accession to the World Trade Organisation in 2001.
- Since 2015, Mainland China has also been the largest trading-partner country of the U.S., surpassing Canada.

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

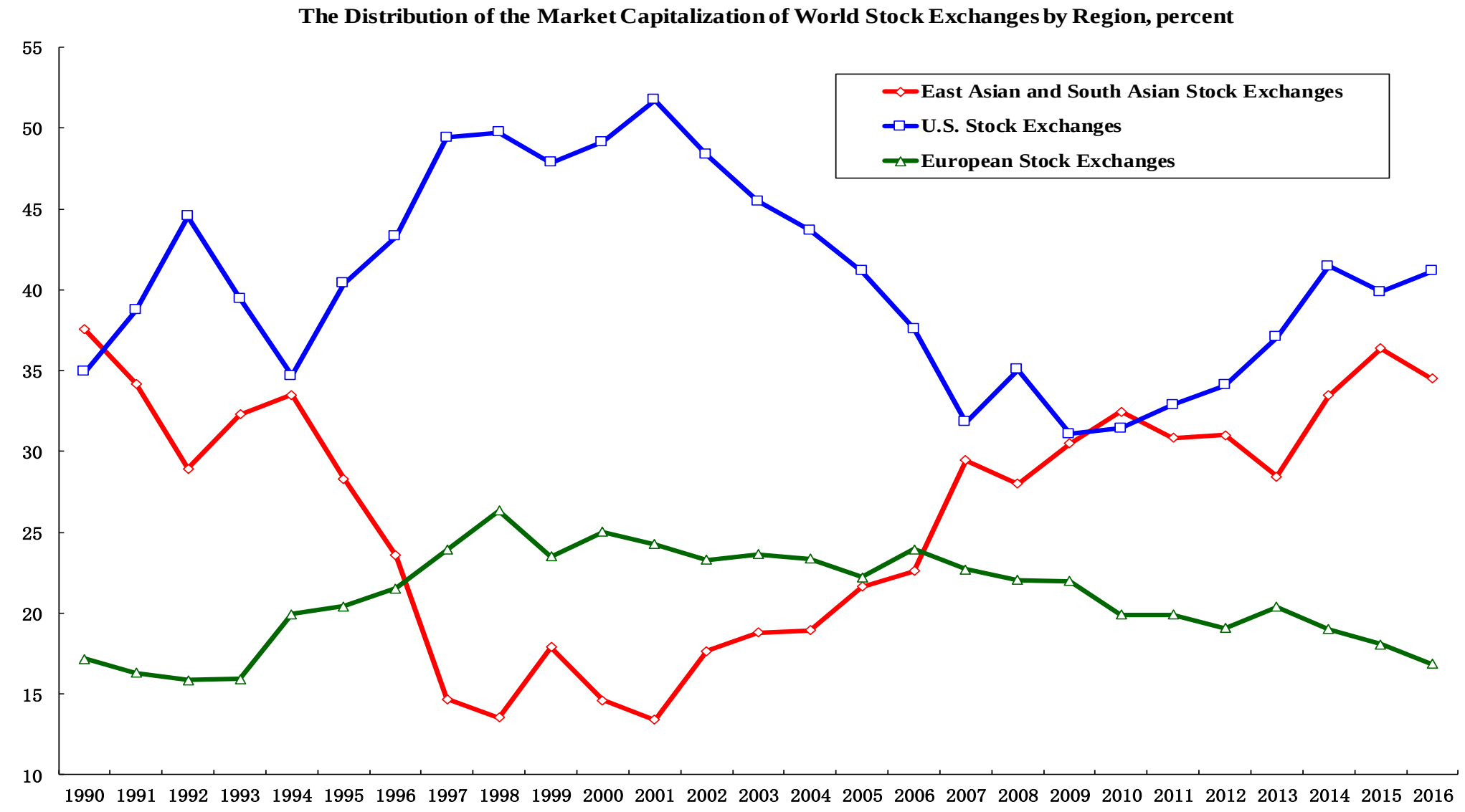




The Shifting Center of Gravity of the Global Economy—The Distribution of Wealth

- If we use the values of the market capitalization of the stock exchanges of respectively the U.S., Europe, and East Asia and South Asia combined as a proxy of the values of their wealth (admittedly a crude one for many reasons), we can see that in 2001, the U.S. accounted for 50 percent of the world's wealth, Europe not quite 25 percent and Asia just above 10 percent.
- In 2016, while the U.S. still accounted for approximately 40 percent, Asia rose to almost 35 percent and Europe fell to less than 20 percent.

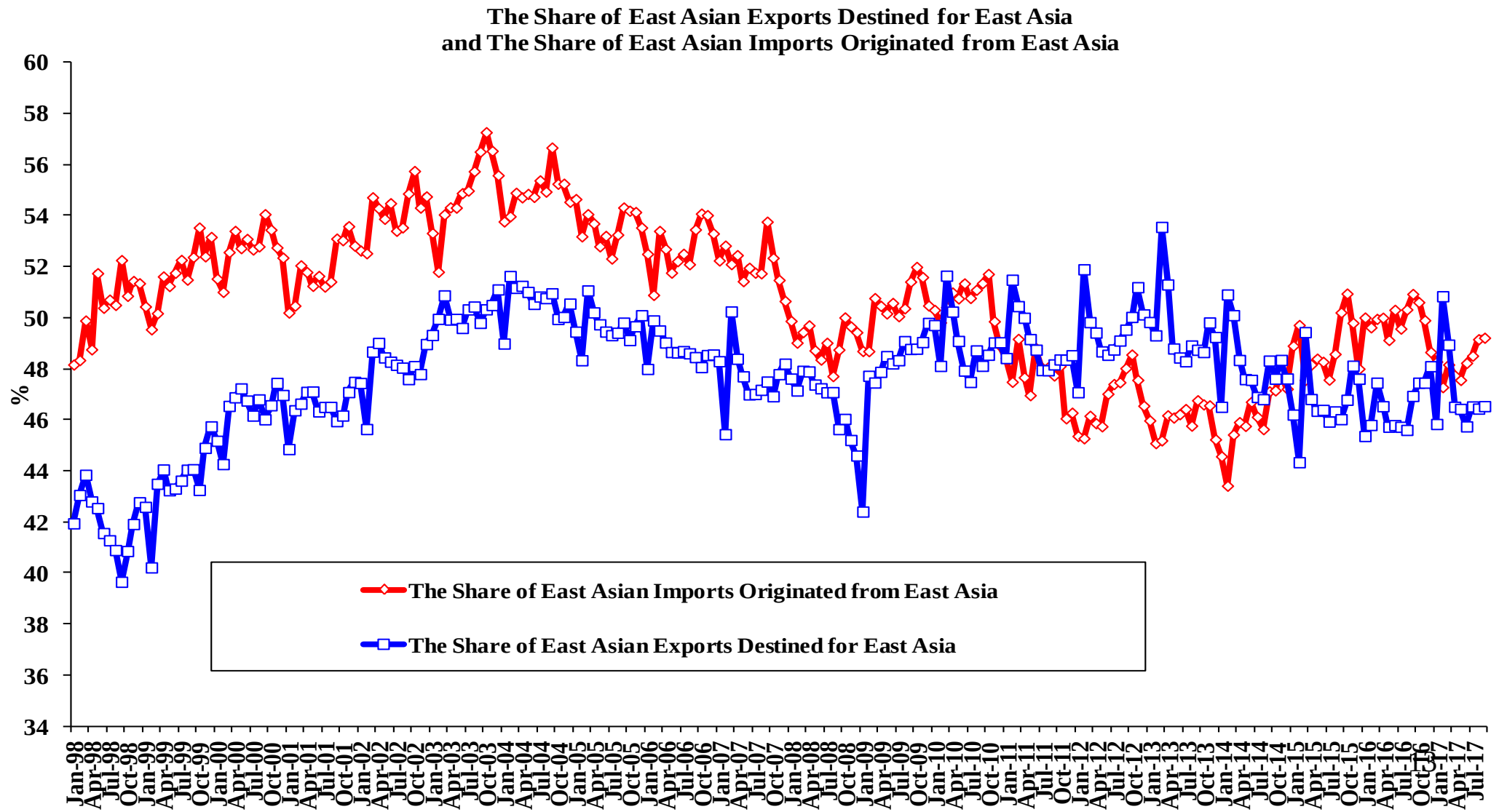
The Distribution of the Market Capitalization of World Stock Exchanges by Region, percent



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

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

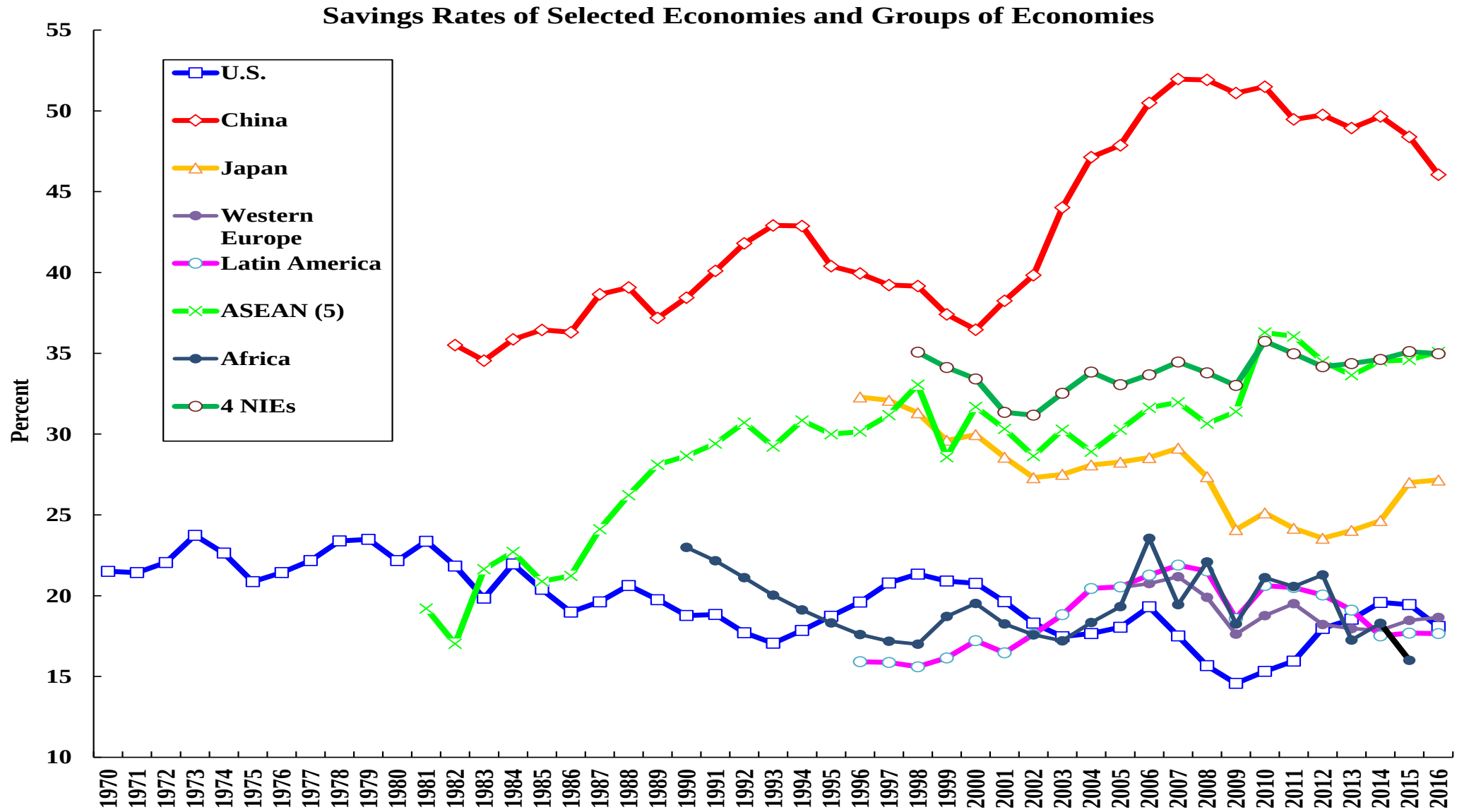
The Share of East Asian Exports Destined for E. Asia & the Share of E. Asian Imports Originated from E. Asia



Economic Fundamentals—A High Domestic Savings Rate

- The domestic savings rates of East Asian economies have been consistently high, with the possible exception of the Philippines. This is in contrast to African and Latin American economies, where the savings rates are typically low.
- A high domestic savings rate means that it is possible for the economy to maintain and sustain a high domestic investment rate without depending on the more fickle inflows of foreign aid, credits, loans and direct and portfolio investment, enabling the tangible capital stock of the economy to grow continuously.
- The recent measured savings rates of Japan, Korea, Taiwan and the U.S. may appear low because of the traditional statistical practice of expensing of educational and R&D expenditures, which properly speaking should have been recognized as investment expenditures rather than current expenditures and appropriately accumulated as stocks of intangible capital such as human capital and R&D capital.

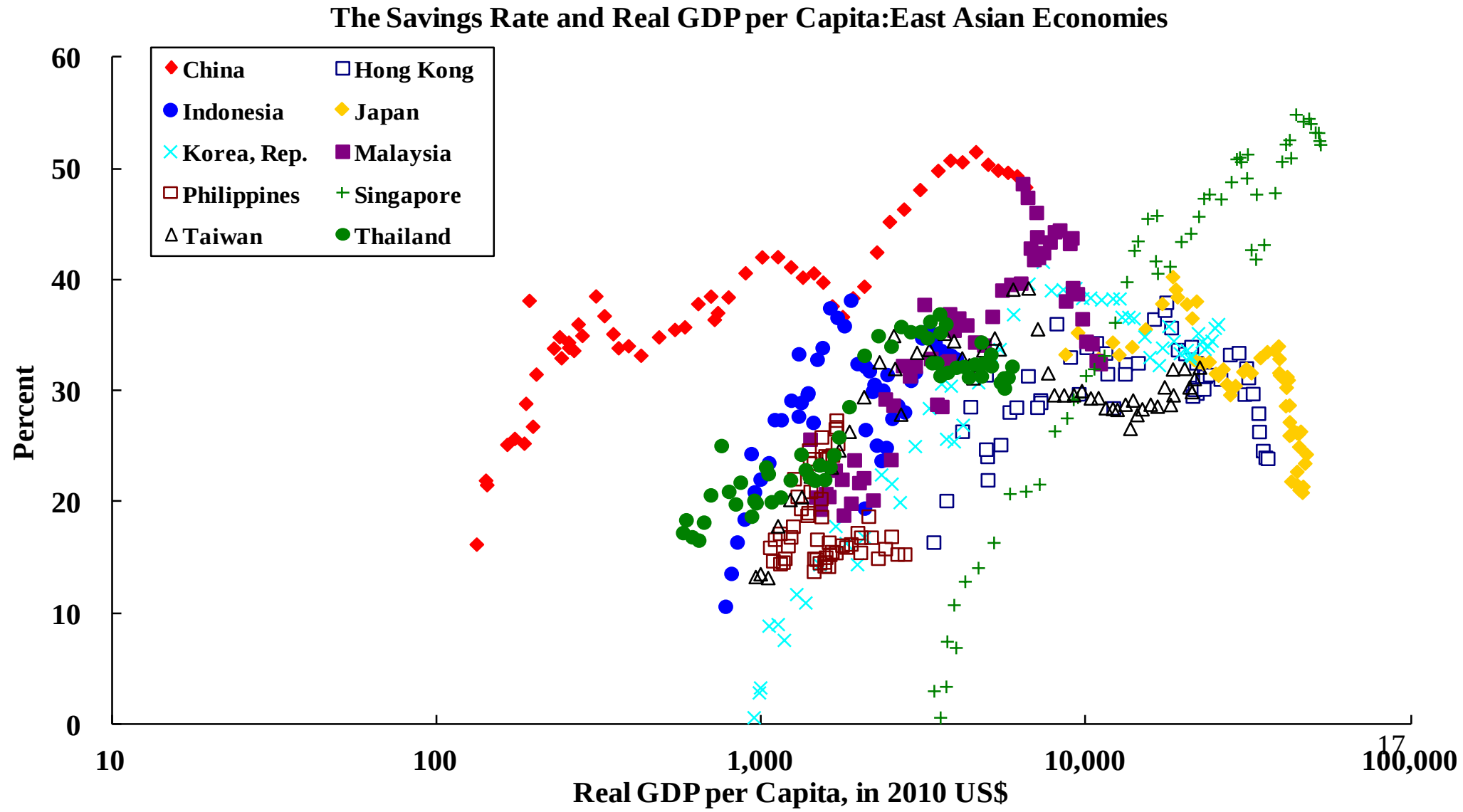
The Savings Rates of Selected Economies and Groups of Economies



Economic Fundamentals—A High Domestic Savings Rate

- The savings rate of an East Asian economy typically started out low when its GDP per capita was low and near the subsistence level. However, the savings rate rose quickly as real GDP per capita exceeded the subsistence threshold. (see the following chart).
- It is, however, sometimes necessary to have a jump start with an initial supply of savings to support the initial investment—from, for example, a good agricultural harvest, land reform, foreign aid, credit or investment.

The Savings Rate and Real GDP per Capita: East Asian Economies



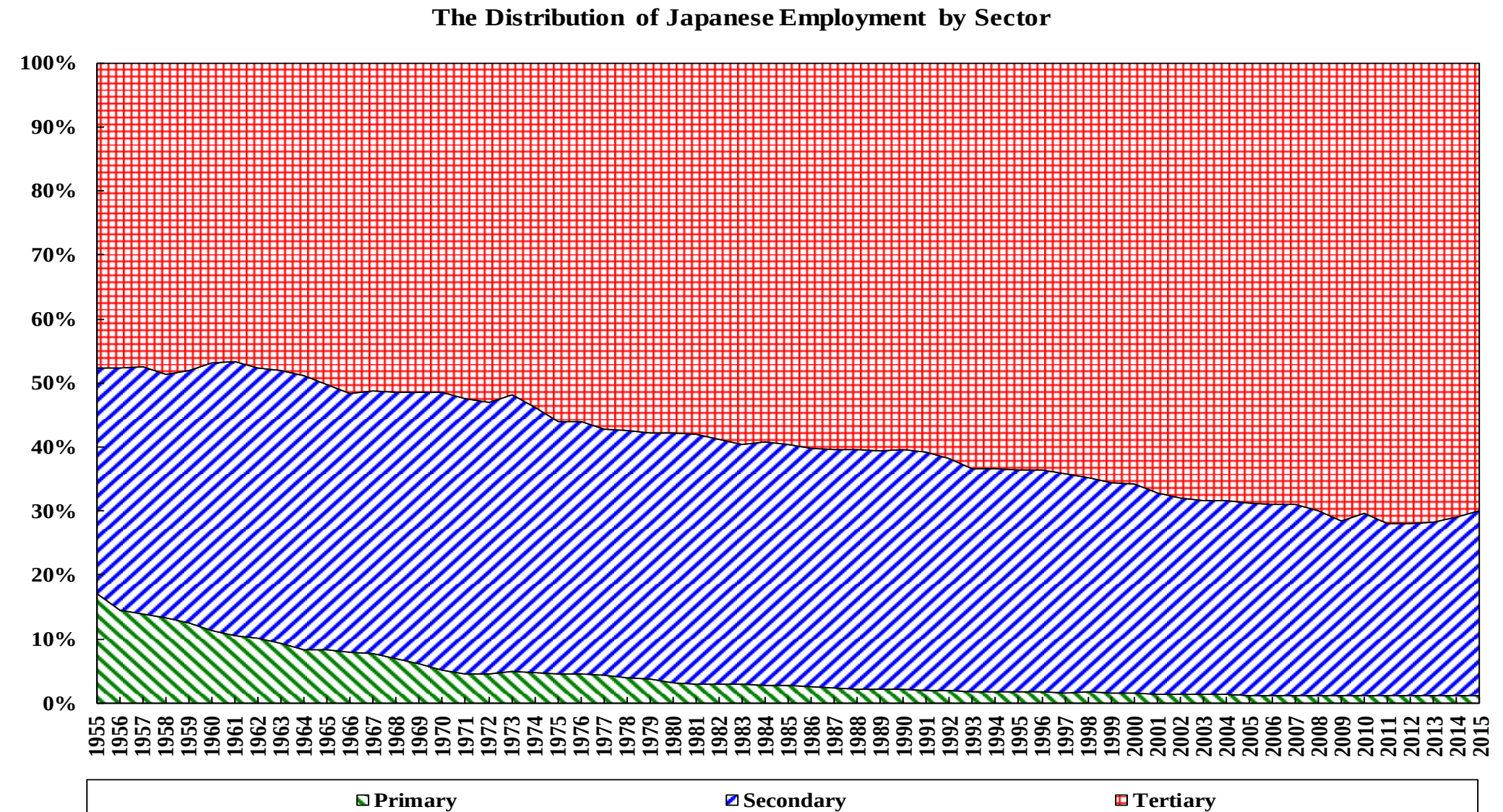
Economic Fundamentals—Abundant Surplus Labor

- East Asian economic development has proceeded along the lines of Professor W. Arthur Lewis's celebrated model of surplus labor, first introduced in his 1954 article, "Economic Development with Unlimited Supplies of Labor", published in the Manchester School.
- In almost every successfully developed East Asian economy, from Japan to Hong Kong to Taiwan to South Korea to Mainland China and Southeast Asia, development began with the expanded employment of the surplus labor from the agricultural sector in the non-agricultural sector, enabled by the continuing investment in tangible capital in the non-agricultural sector, with the bulk of the additional output exported, at least initially.

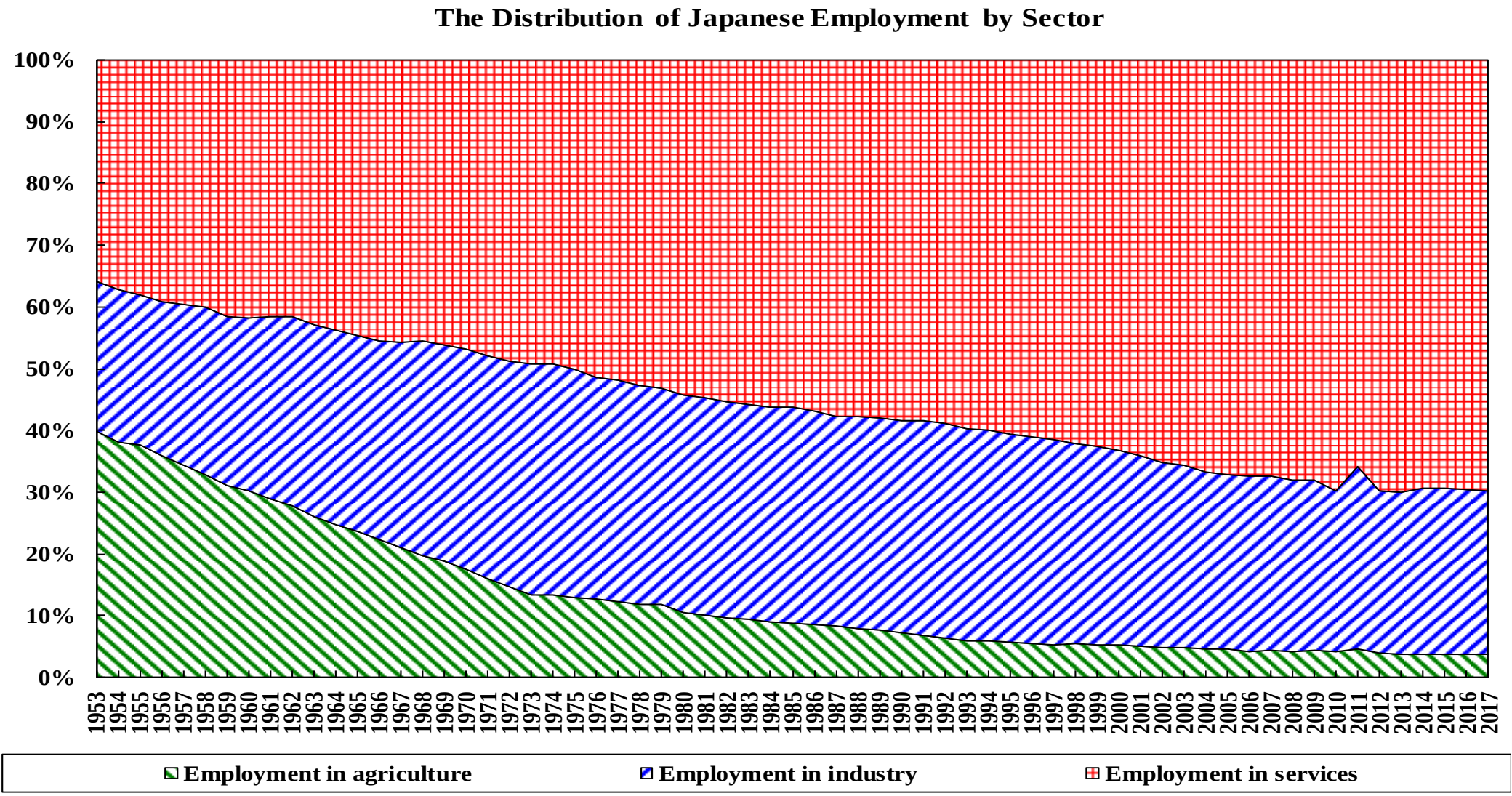
Economic Fundamentals—Abundant Surplus Labor

- During this surplus labor phase, tangible capital was accumulated in the non-agricultural sector and surplus labor moved from the agricultural sector to the non-agricultural sector as complementary tangible capital became available in the non-agricultural sector. For such movement of labor to be sustainable, a relatively high domestic savings rate would be needed, both as a source of wage goods (food) and as a source of investable funds in the non-agricultural sector, unless they could be supplemented by imports and inflows of foreign capital.
- It is important to realise that the principal source of economic growth during this phase is not the surplus labor itself, but the accumulation of tangible capital in the non-agricultural sector, which made it possible for the surplus labor to move from the agricultural to the non-agricultural sector to be productively employed.

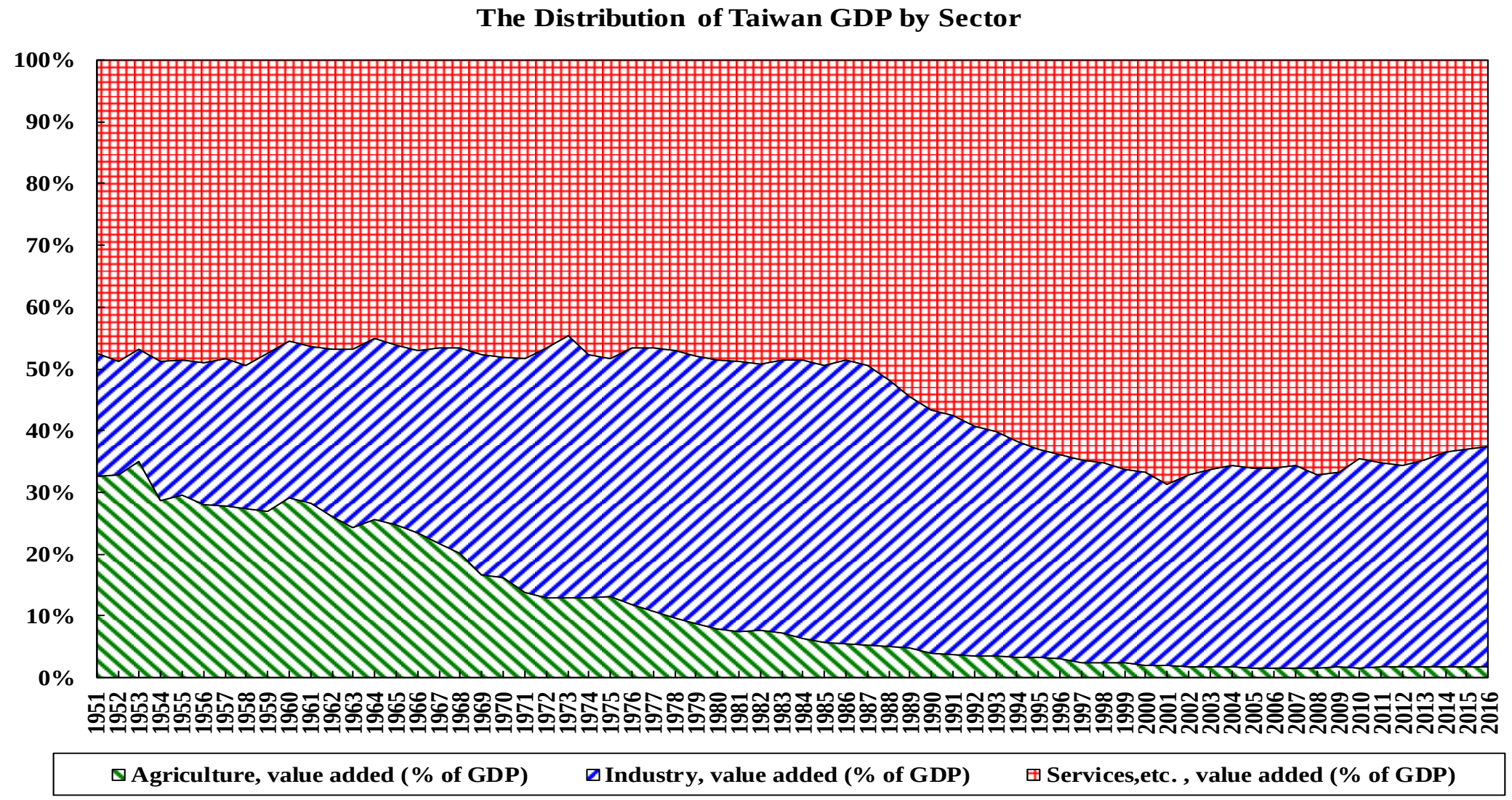
The Distribution of Japanese GDP by Sector Since 1955



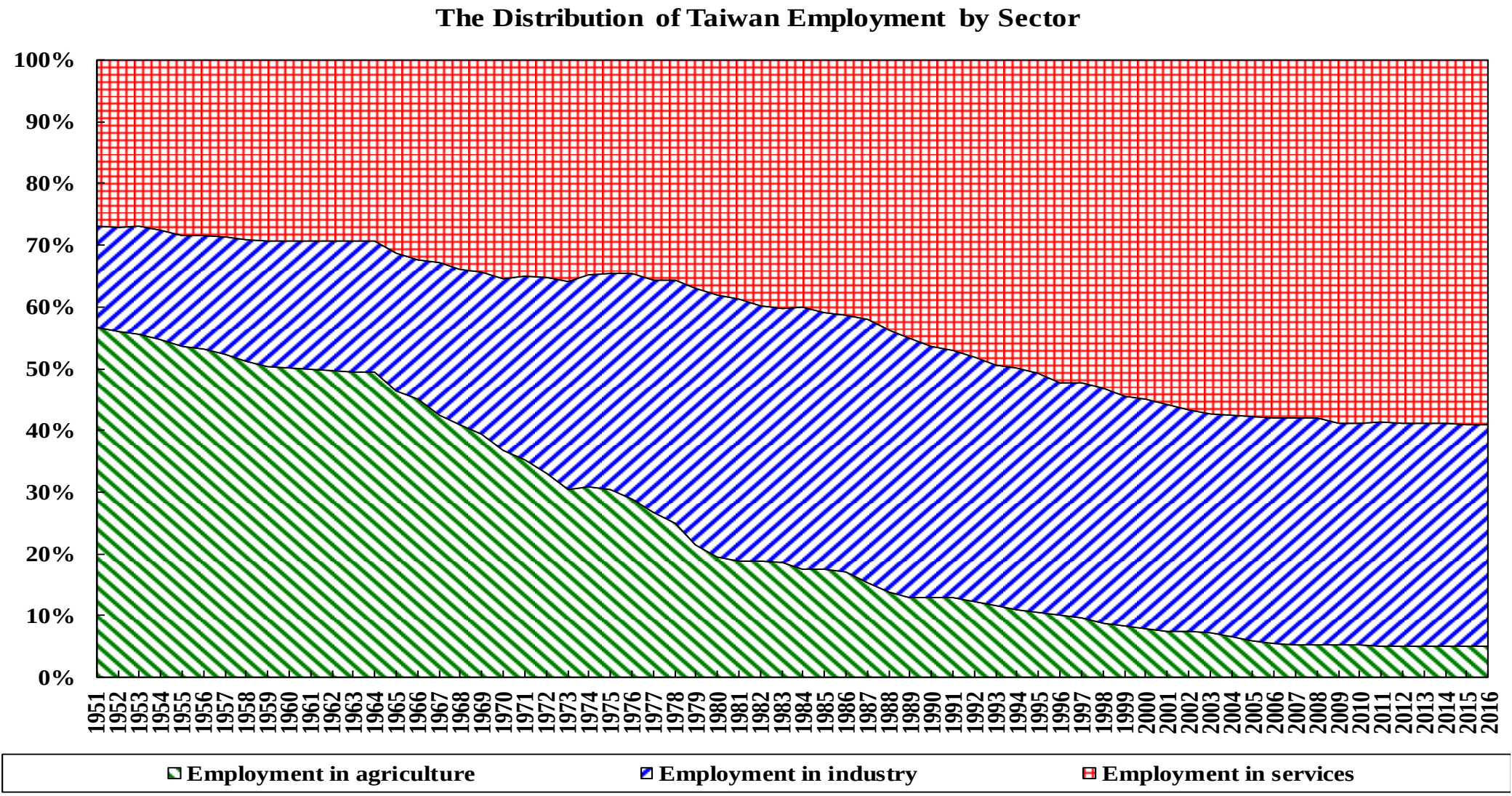
The Distribution of Japanese Employment by Sector Since 1953



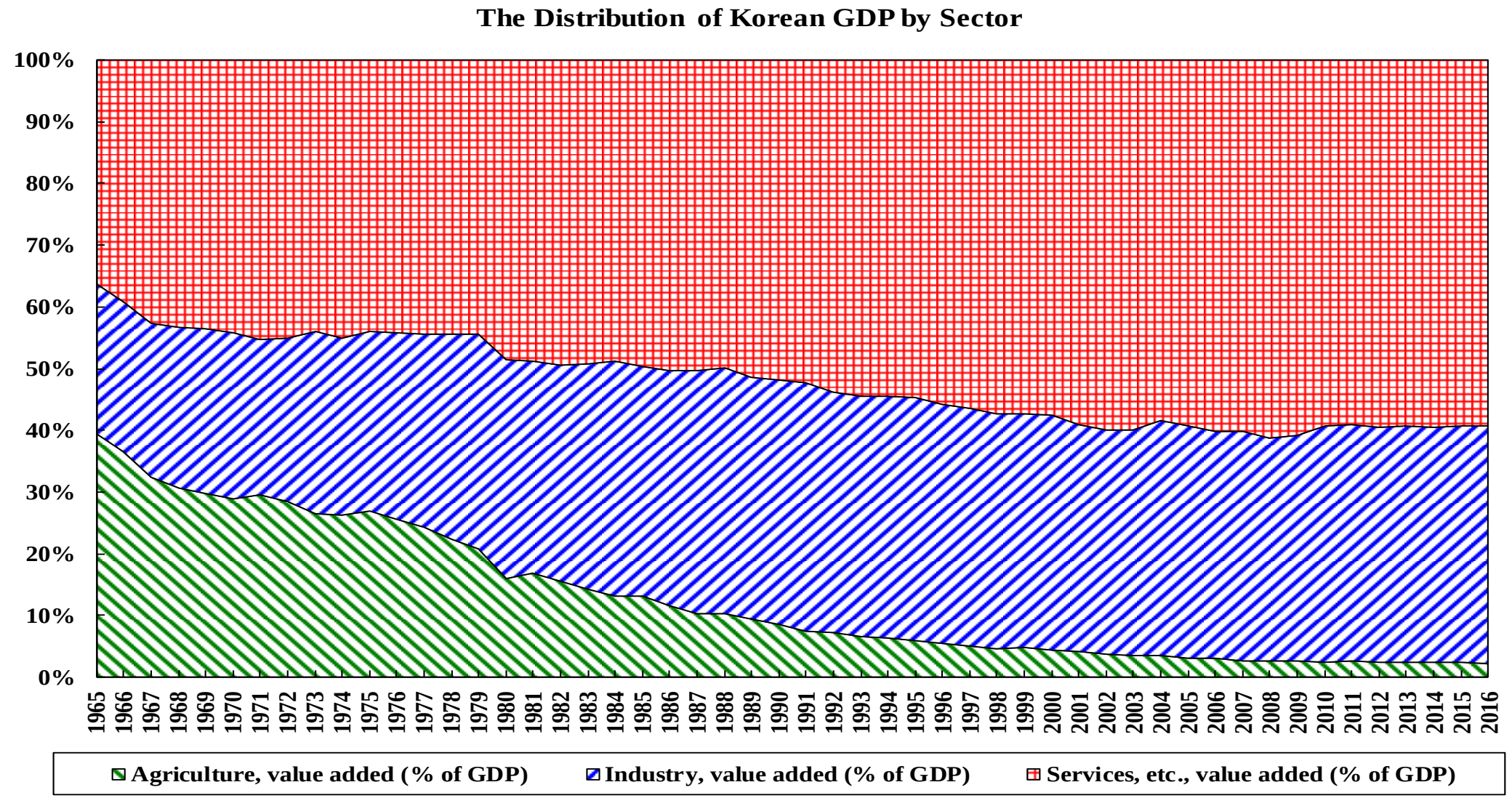
The Distribution of Taiwan GDP by Sector Since 1951



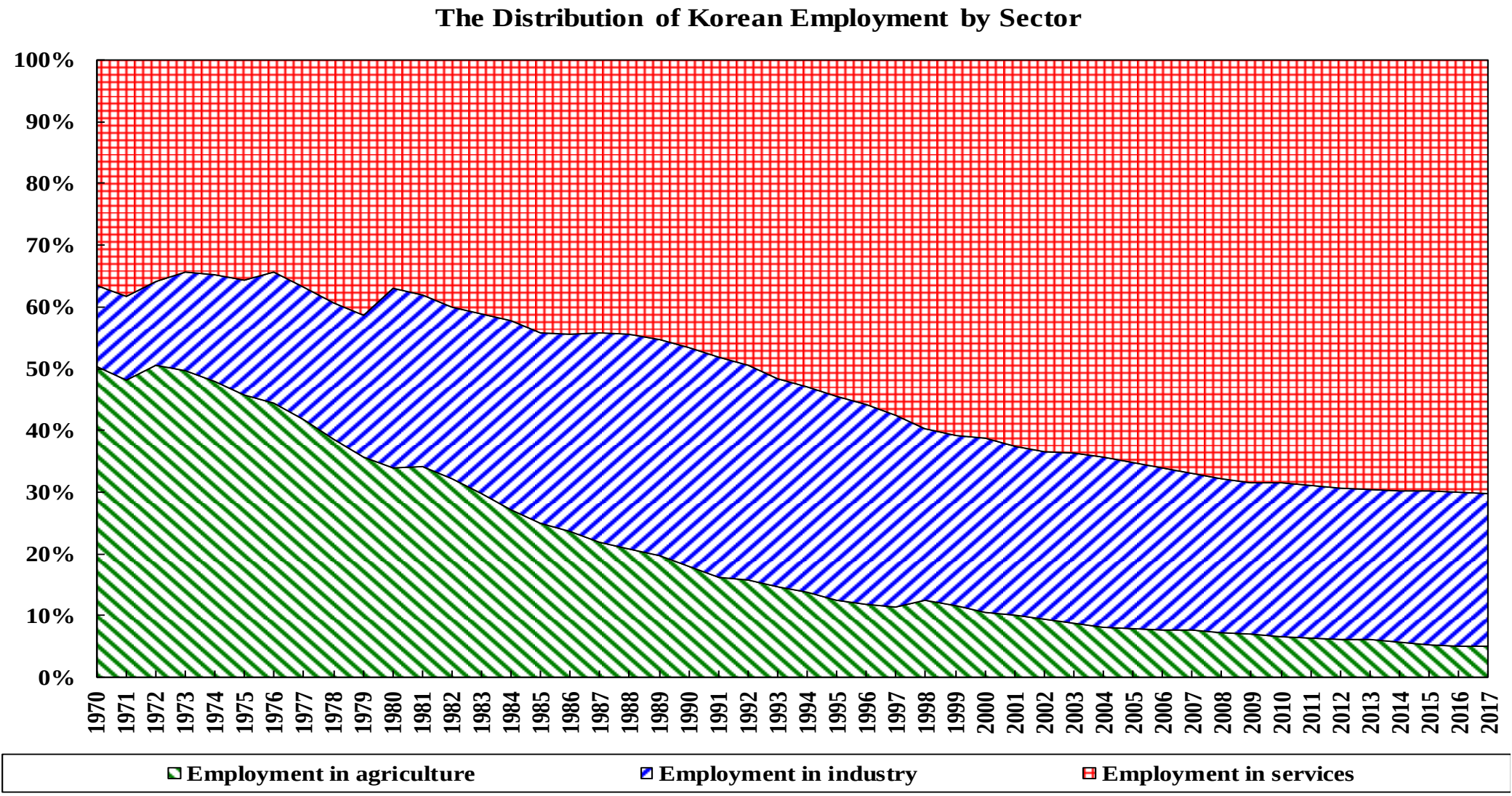
The Distribution of Taiwan Employment by Sector Since 1951



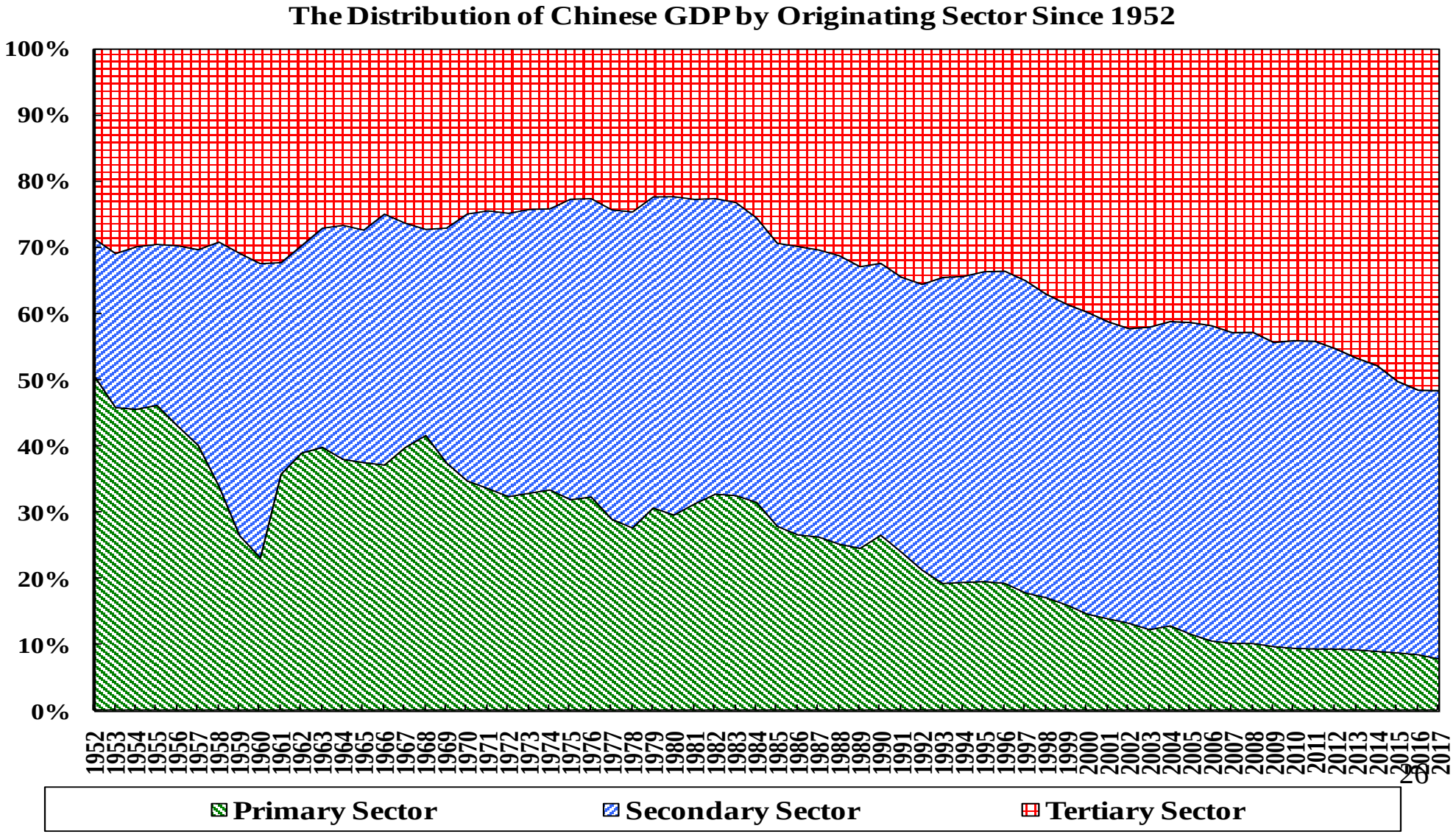
The Distribution of South Korean GDP by Sector Since 1965



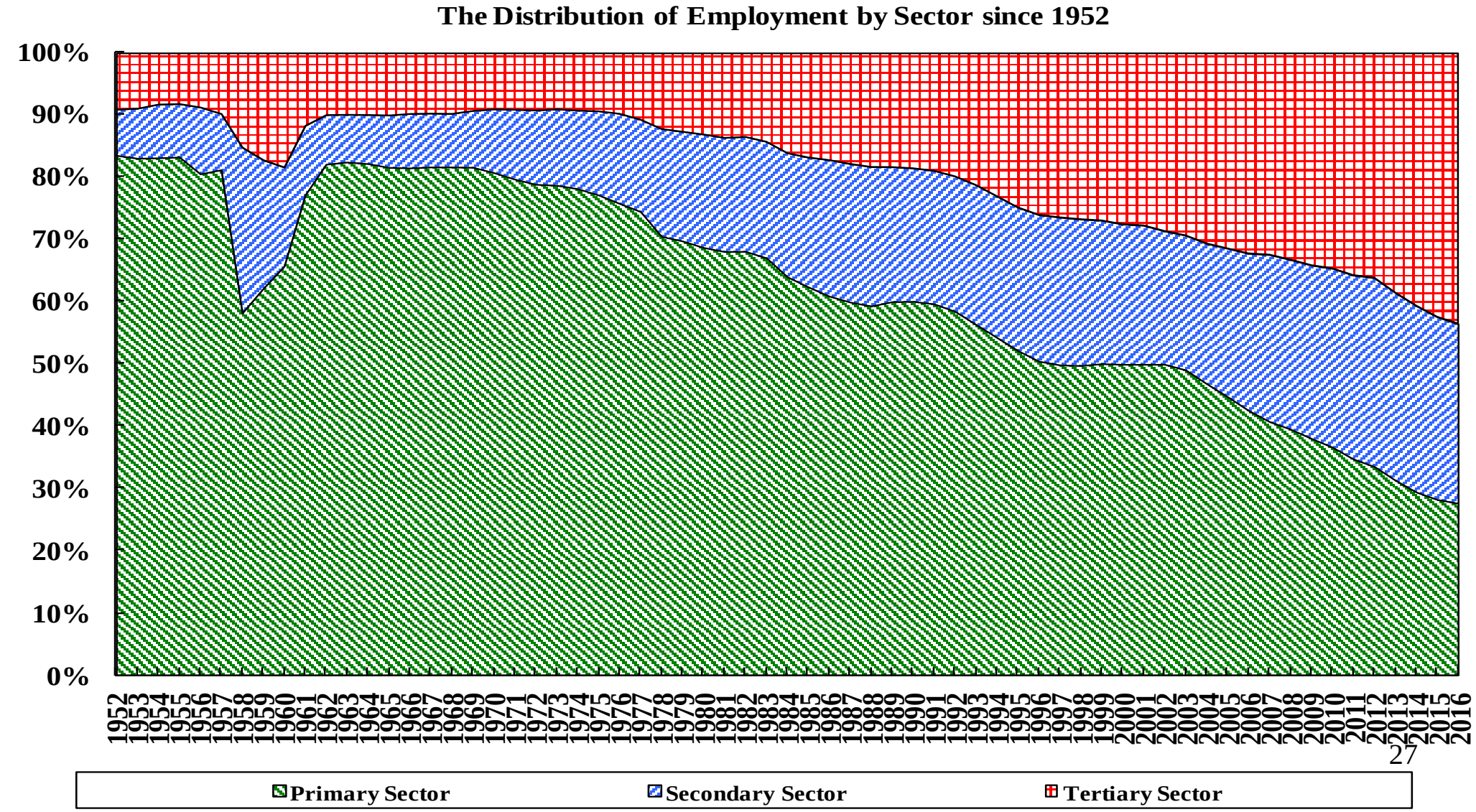
The Distribution of South Korean Employment by Sector Since 1970



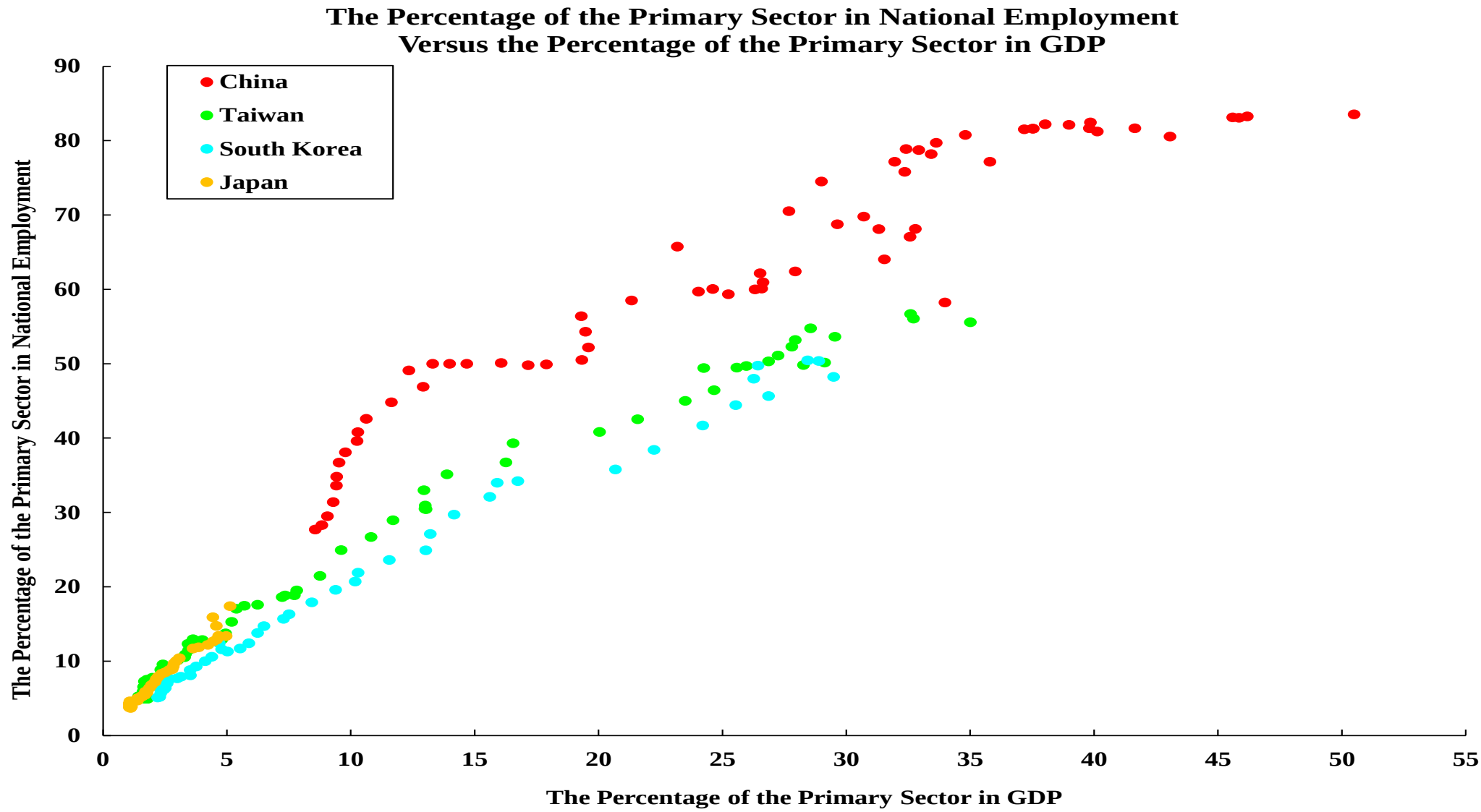
The Distribution of Chinese GDP by Sector Since 1952



The Distribution of Chinese Employment by Sector Since 1952



The Percentage of the Primary Sector in Total Employment versus Its Percentage in GDP



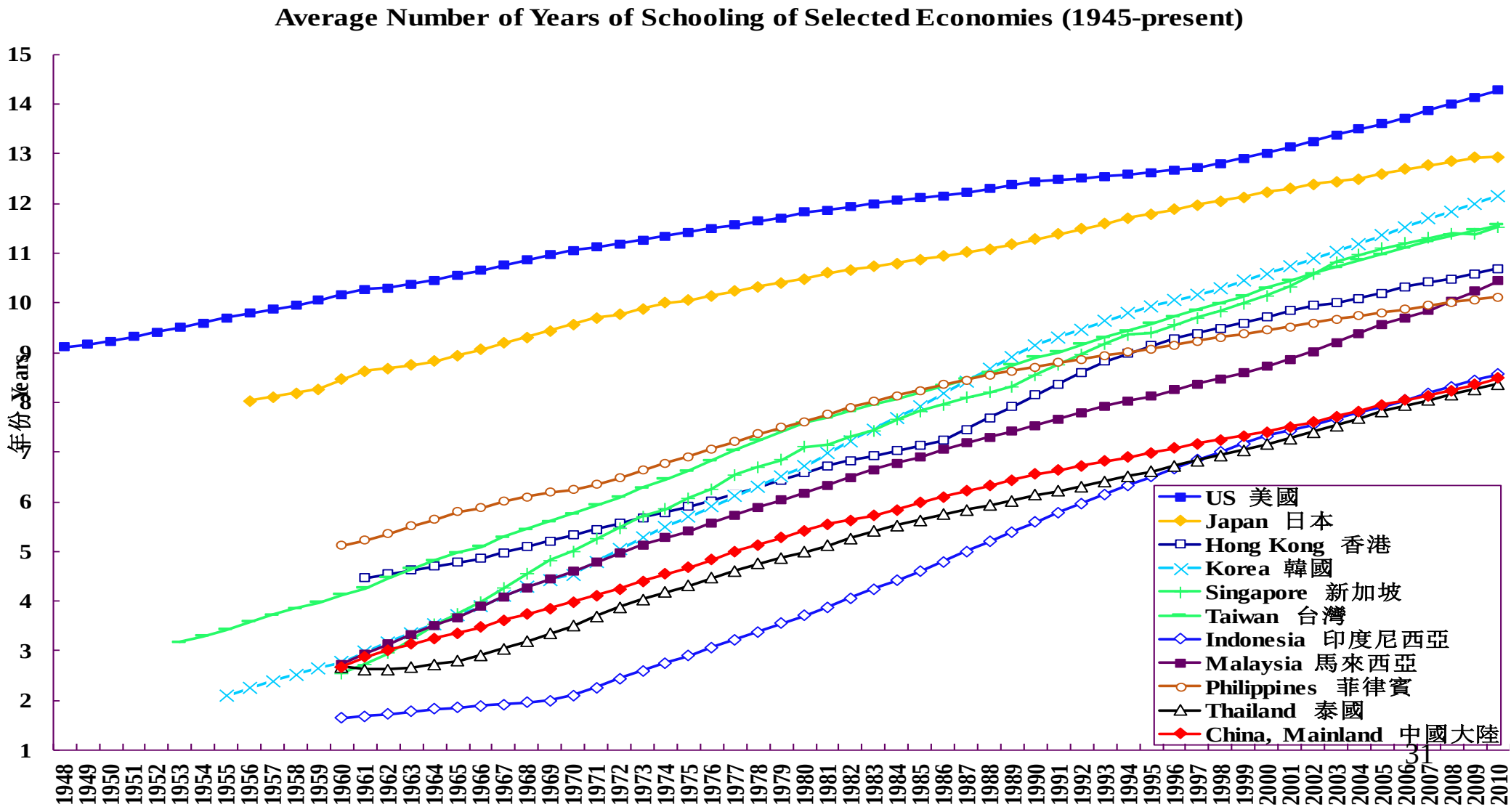
Economic Fundamentals—Investment in Intangible Capital

- Innovation is the most important driving force of economic growth today, especially for mature developed economies with their already-high capital-labor ratios and little, no, or even negative growth in labor-hours.
- Sustained investment in intangible capital such as human capital and research and development (R&D) is essential for the occurrence of economic innovation, reflected in measured technical progress or growth in total factor productivity in an economy.
- The East Asian economic development experience provides an example of created as opposed to natural comparative advantage. Japan, Hong Kong, South Korea, Singapore, Taiwan and Mainland China all had little natural resources. However, they have shown that human capital and R&D capital can substitute for natural resources.

Economic Fundamentals—Investment in Intangible Capital (Human Capital)

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

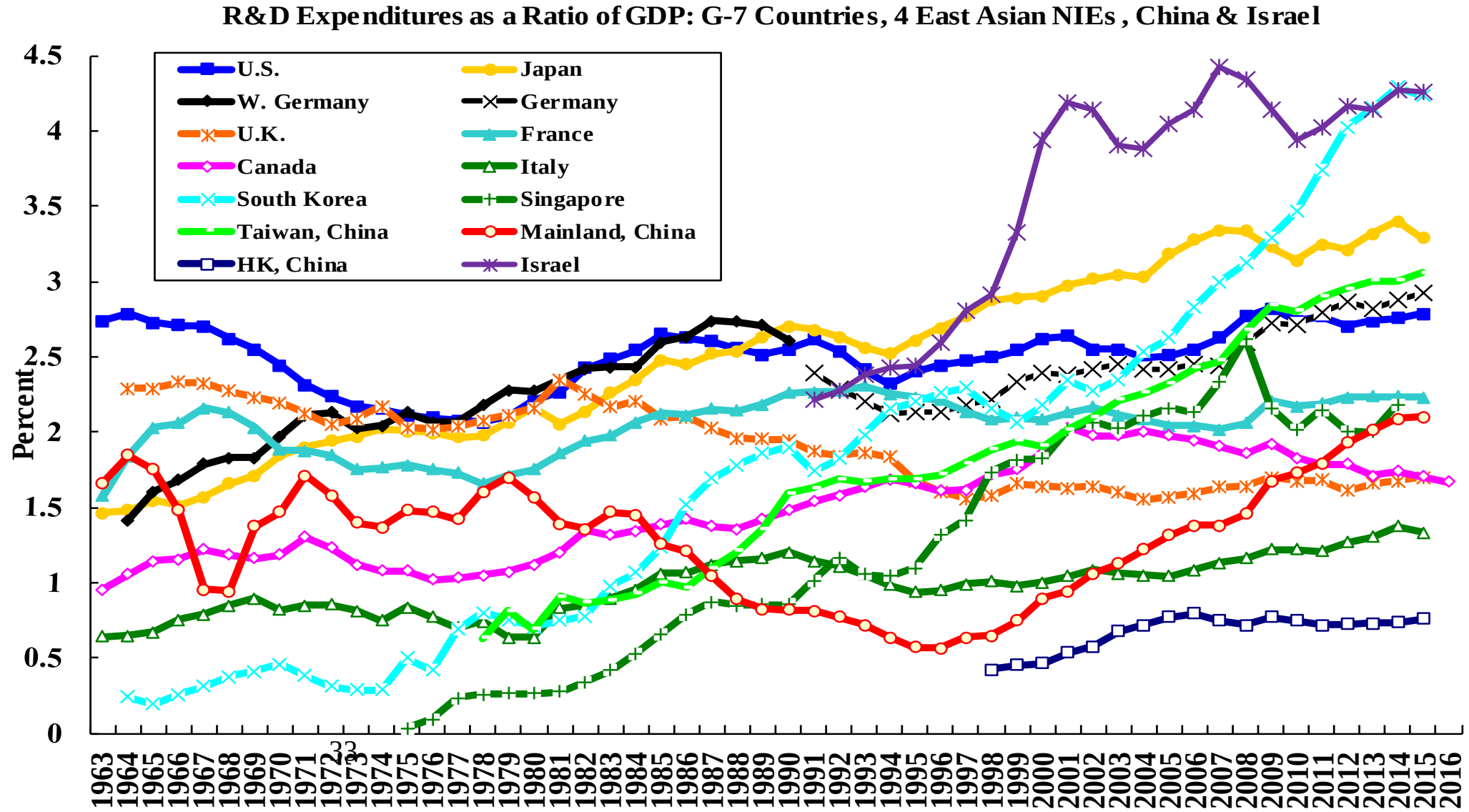
Average No. of Years of Schooling per Person in the Working Age Pop., Selected Economies



Economic Fundamentals—Investment in Intangible Capital (R&D Capital)

- The annual expenditure on R&D as a percent of GDP are presented for selected economies in the following chart.
- The chart shows that the U.S. has consistently invested a relatively high percent of its GDP in R&D. The East Asian economies, including Mainland China, has been catching up fast, with the exception of Hong Kong.

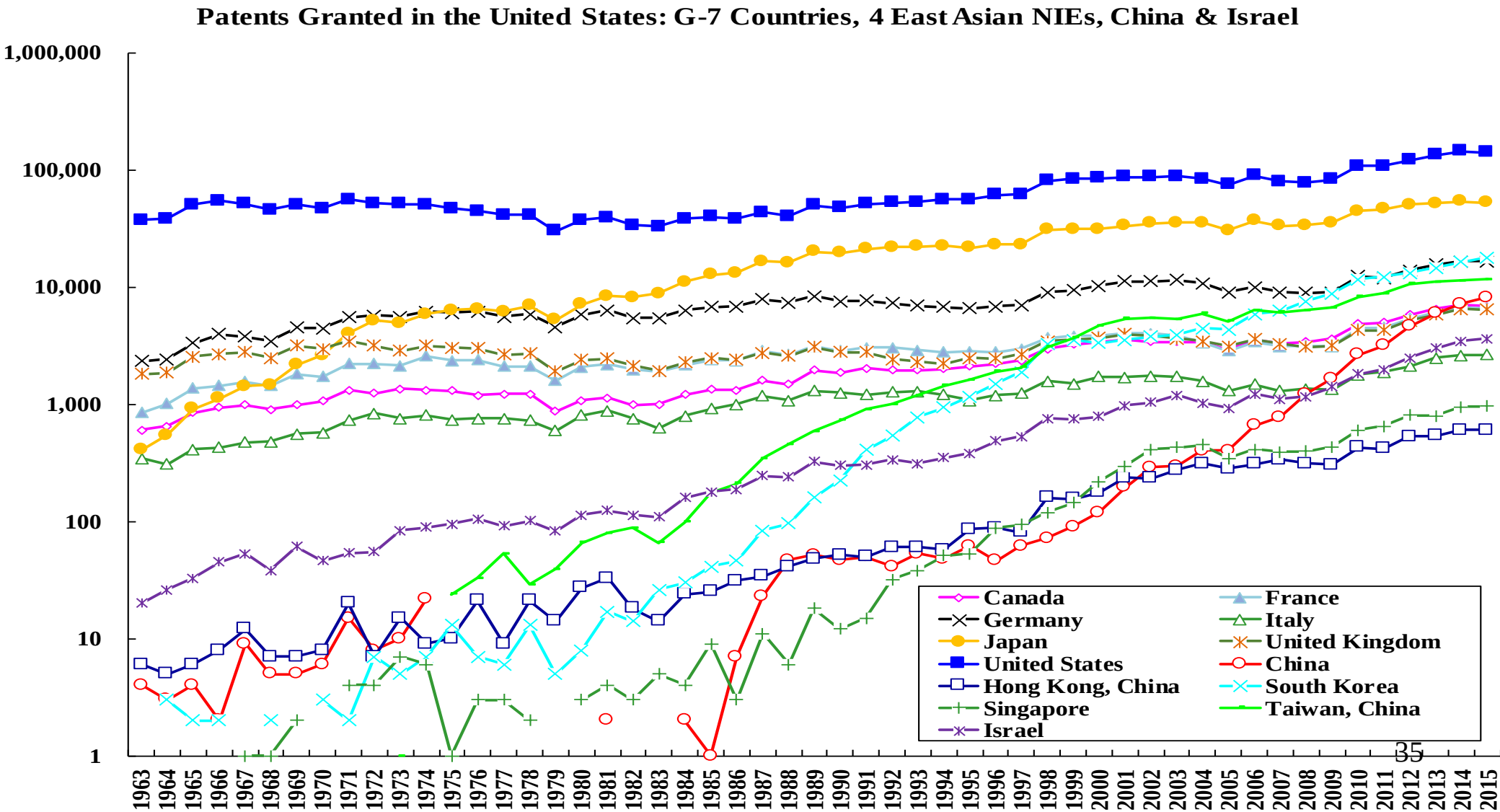
R&D Expenditure as a Percent of GDP: G-7 Countries, 4 East Asian NIES, China & Israel



Economic Fundamentals—Investment in Intangible Capital (R&D Capital)

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

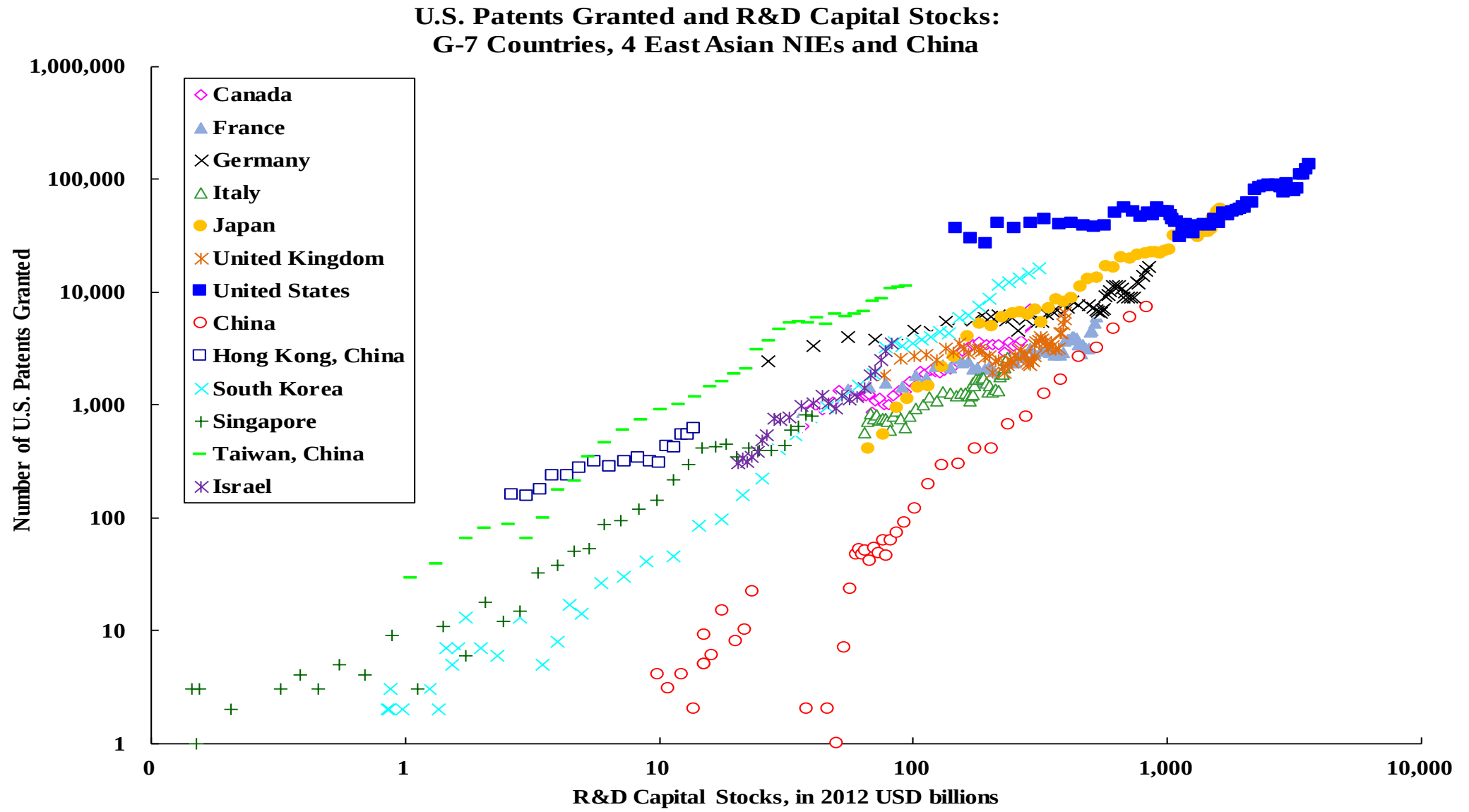
Patents Granted in the United States: G-7 Countries, 4 East Asian NIEs, China & Israel



Economic Fundamentals—Investment in Intangible Capital (R&D Capital)

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

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



Economic Development Policies--Maintenance of Macroeconomic Stability

- Domestic macroeconomic stability is crucial for households, enterprises and governments to think and plan long-term. Without long-term planning, there will be no investment, public or private, and in particular, there will be no investment in the needed basic infrastructure.
- Moreover, opening of the domestic economy in the absence of a minimum degree of macroeconomic stability is risky because it will lead to massive capital flight, significant devaluation and even more inflation.
- The control of inflation is thus an integral part of maintaining macroeconomic stability. It is essential for the stabilization of the exchange rate, which in turn makes it possible for the economic development policy of export promotion to be successfully implemented.
- Furthermore, a high rate of inflation often makes the income distribution more unequal. Inflation favors net borrowers and penalizes net savers. Low-income individuals and retired individuals are also the least able to cope with the effects of inflation.

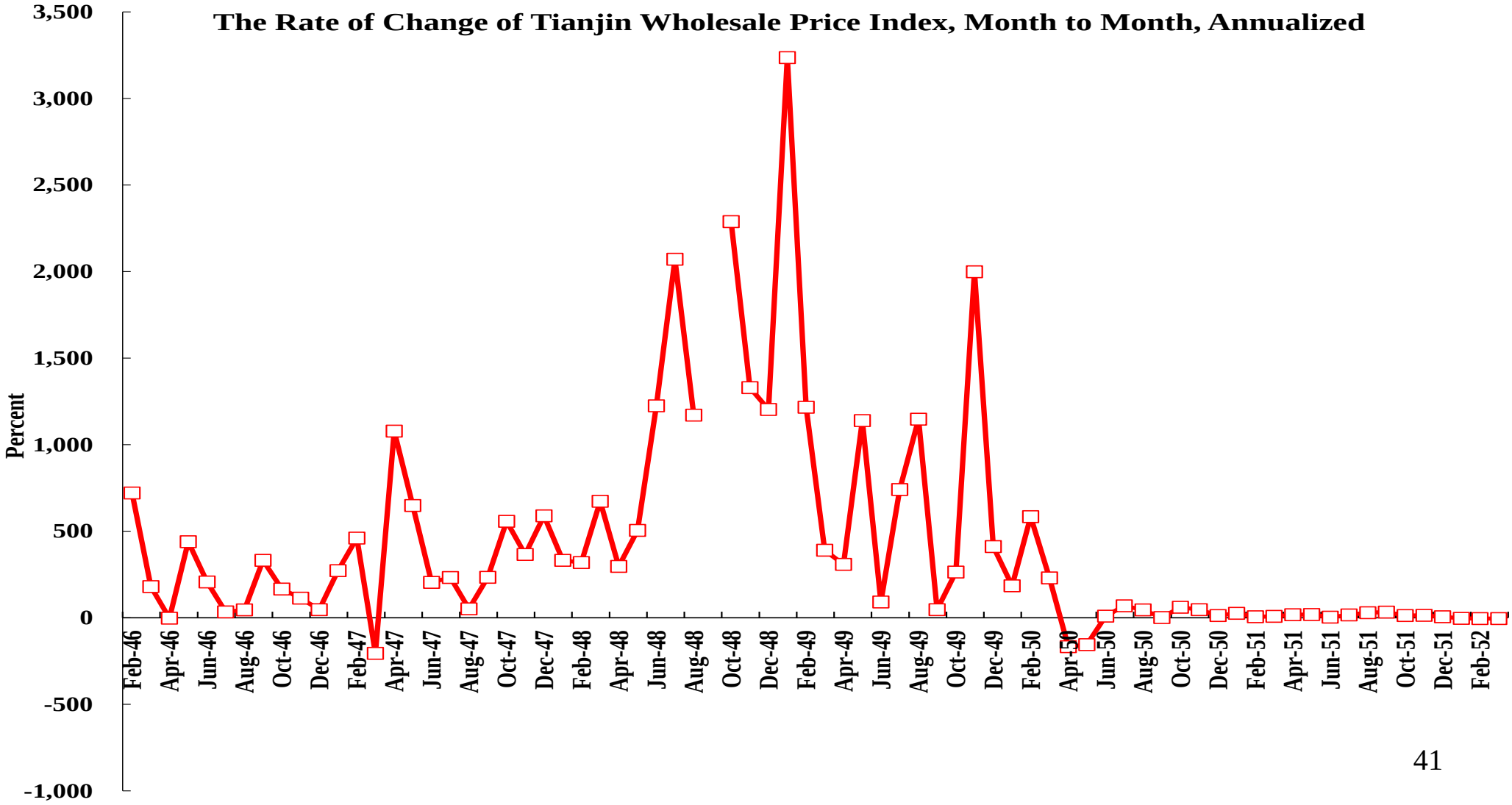
Economic Development Policies--Maintenance of Macroeconomic Stability (Mainland China)

- In 1947, there was hyper-inflation in China. The late Professor Sho-Chieh TSIANG proposed the issuance of inflation-indexed retail bonds, with both the principal and interest tied to the rate of inflation, as a way to tame it. The key is that if the commitment of the government to indexing is perceived to be credible, it can change inflationary expectations. Regrettably, this proposal was not adopted by the Nationalist government at the time.
- But when the Chinese Communists came to power in 1949, they adopted and implemented the indexing proposal, launching a kind of bank deposit the principal and interest of which were indexed to the rates of change in the prices of a (weighted) basket of five goods—including rice, oil, salt and cotton cloth. These indexed bank deposits helped bring down the rate of inflation on the Mainland very quickly.

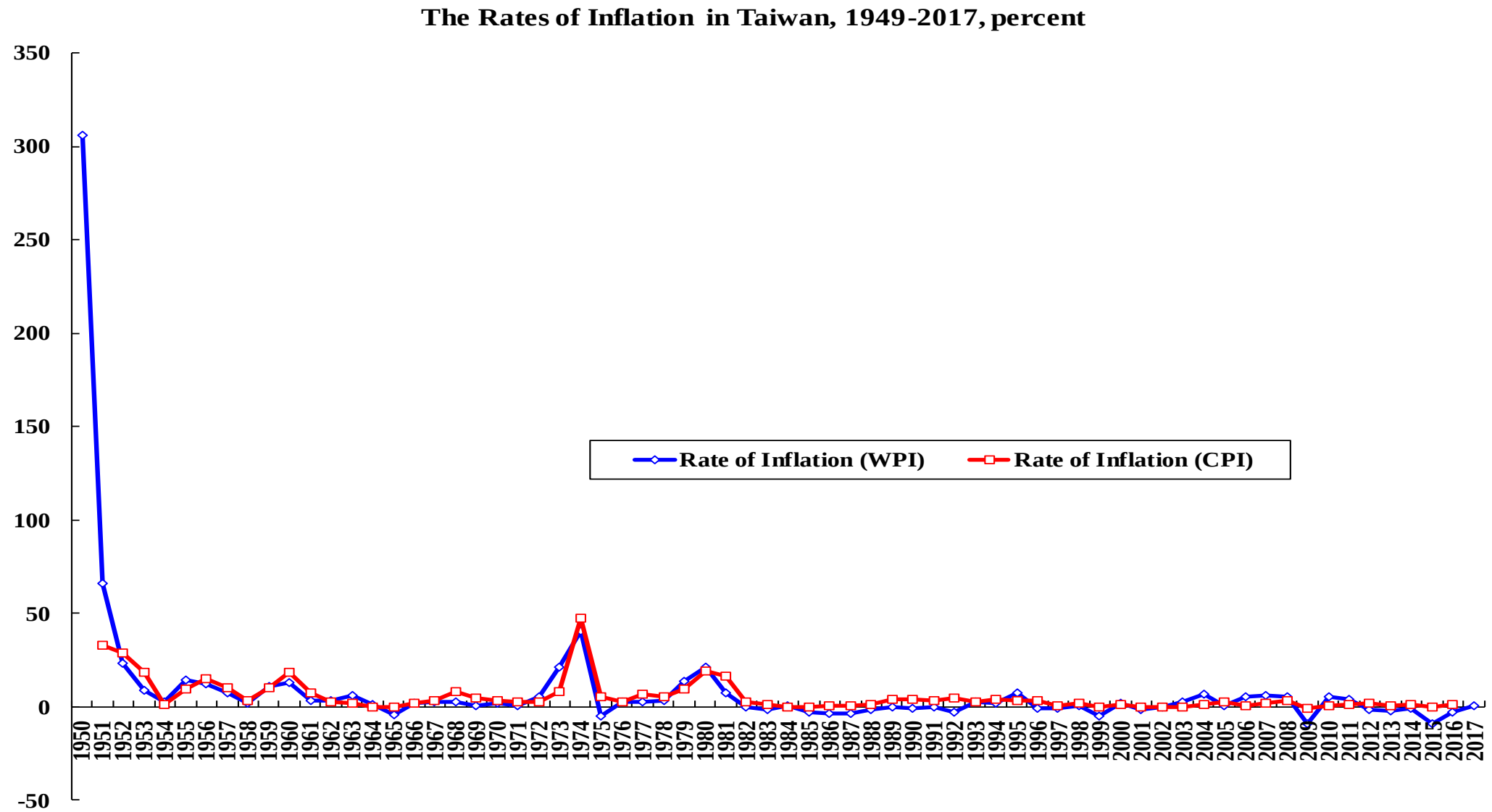
Economic Development Policies--Maintenance of Macroeconomic Stability (Mainland China)

- In January 1949, the rate of inflation on the Mainland was running at an annual rate of more than 3,000 percent! By June 1950, the rate of inflation fell to only 10 percent. By 1952, the price index began falling in absolute terms at which point the Communist government modified the rate of interest formula so that while it would go up with the rate of inflation it would not go down when inflation turned negative. (see the following chart.)
- Nationwide price indices were not available for China during this period. The chart shows the wholesale price index of the City of Tianjin, compiled by Nankai University, which was broadly representative of the rates of inflation in other urban areas in Mainland China at the time.
- Inflation was also very high in Taiwan in 1949-1950, it was also brought down relatively quickly.

The Monthly Rate of Inflation on the Mainland, 1946-52 (Tianjin Wholesale PI)



The Rates of Inflation of Taiwan, 1950-2017 (The Wholesale and Consumer Price Indices)



Economic Development Policies--Opening of the Economy

- Japan, the East Asian "newly industrialized economies (NIEs)", and Mainland China all had little natural resources. Capital equipment, oil, and raw materials such as cotton, all had to be imported. Thus, an open economy is essential for their industrialization.
- To finance these imports in a sustainable manner, there must be exports, and exports to the world must follow the principles of comparative advantage. In the case of these economies, they would begin with specialization in the production of labor-intensive light-manufactured goods.
- Opening the economy also attracted foreign direct investment (FDI) to augment domestic savings and facilitate technology transfer.

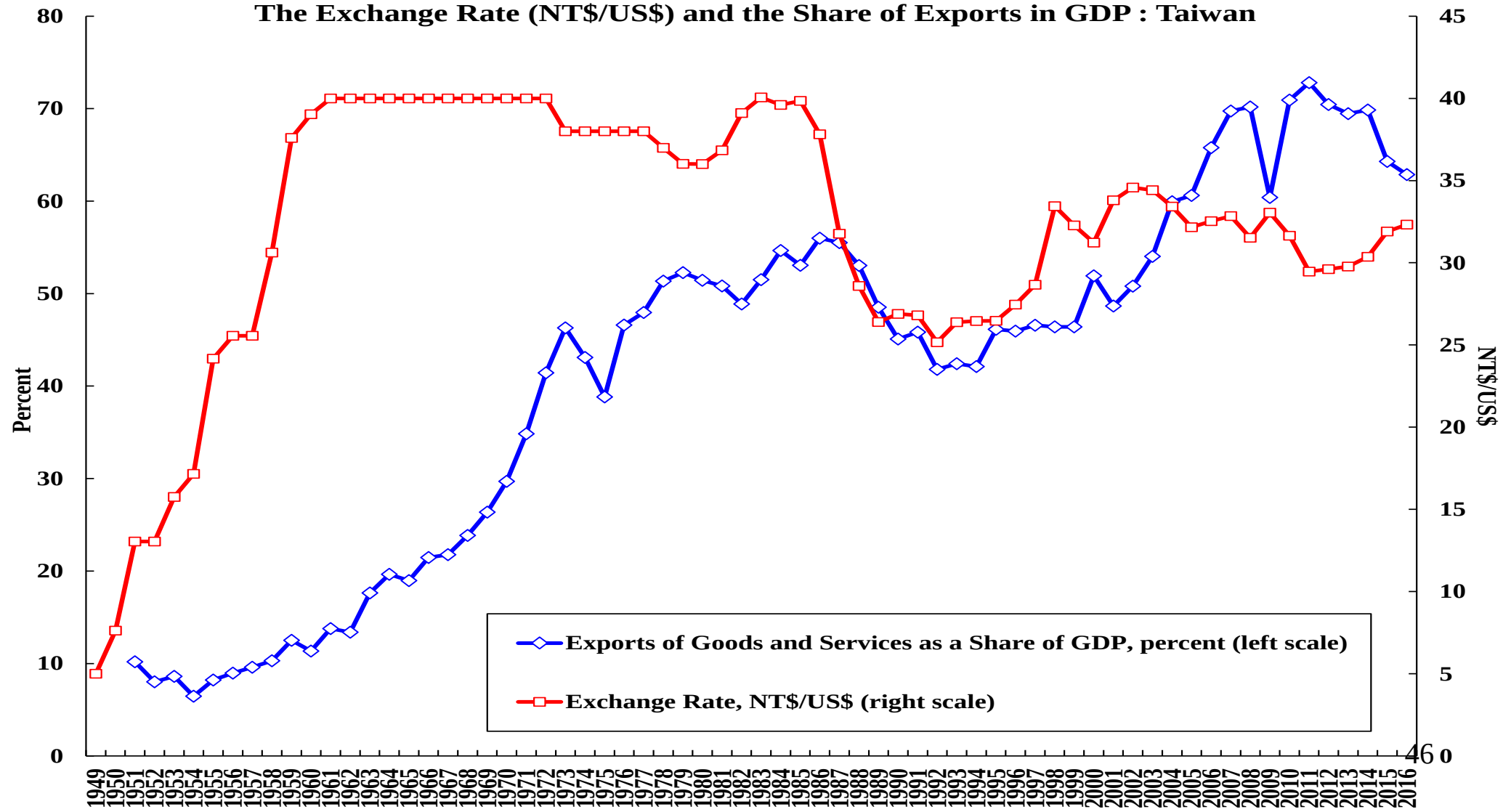
Economic Development Policies—The Promotion of Exports

- First Japan, and then Hong Kong, and then Taiwan successively and successfully adopted and implemented the economic development policy of export promotion. This was done through a significant devaluation of the respective currencies and the introduction of various direct and indirect incentives for exporters.
- However, import substitution, rather than export promotion, was the policy of choice of Western development economists in the 1950s. For example, India was advised to engage in import substitution as a strategy for its economic development. It proved to be a failed strategy.
- The growth of world trade has led the growth of world GDP for half a century, until the Global Financial Crisis of 2008.

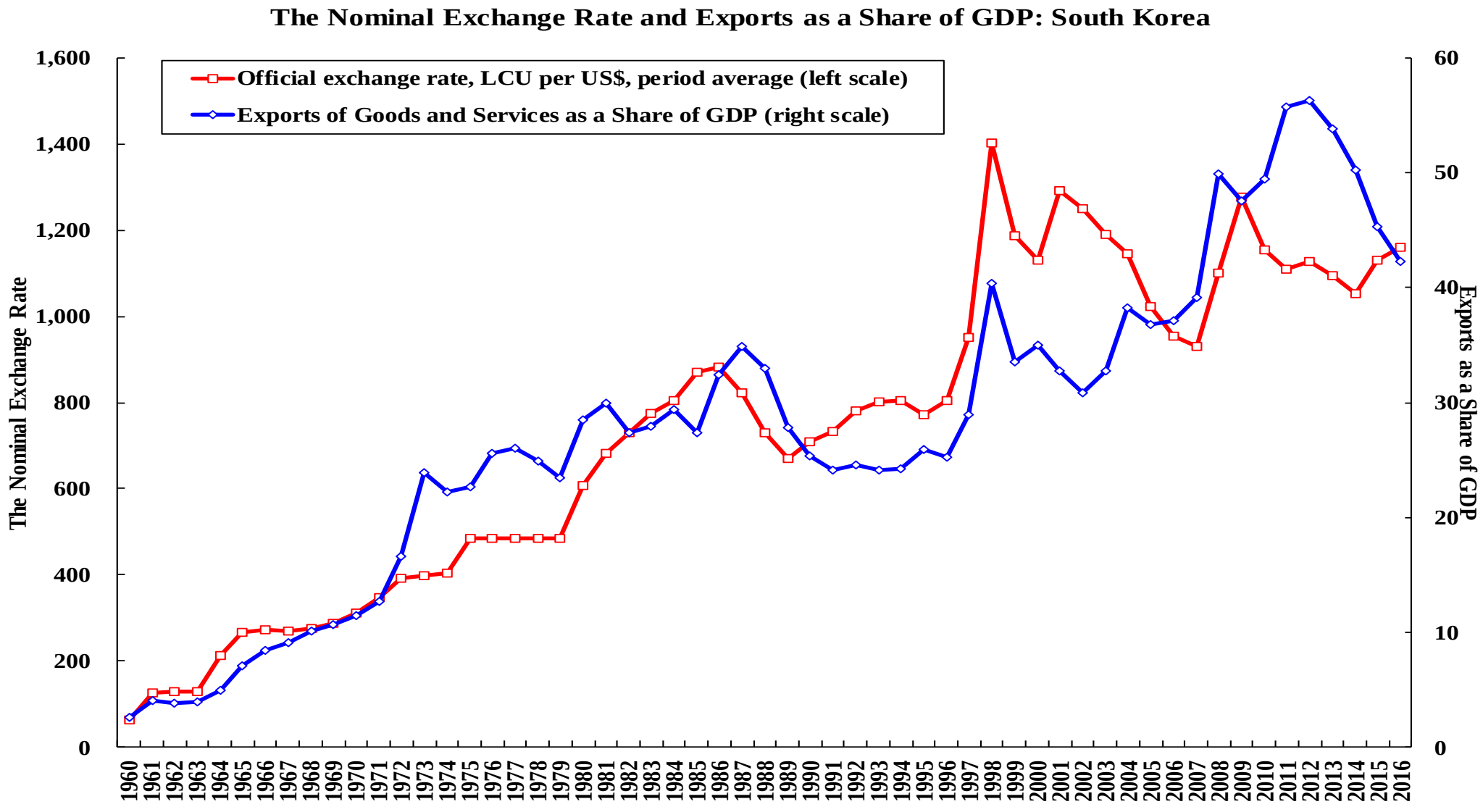
Economic Development Policies—The Promotion of Exports

- In the following chart, the weighted average exchange rate of Taiwan and its share of exports in GDP are presented. After a series of significant devaluations, the multiple exchange rates were finally unified around 1959 at approximately NT$40 per US$. These devaluations enabled exports to increase rapidly in both absolute terms and as a percent of GDP. By the late 1980s, exports constituted over 50 percent of GDP.
- Subsequently the NT$ appreciated as trade surpluses piled up.
- A further devaluation in 1996-1997, in response to the East Asian currency crisis, caused exports to rise further to approximately 70 percent of GDP. Currently, exports is approximately 65 percent of GDP in Taiwan.
- The patterns in South Korea, Mainland China and Vietnam are basically similar (see the charts following).

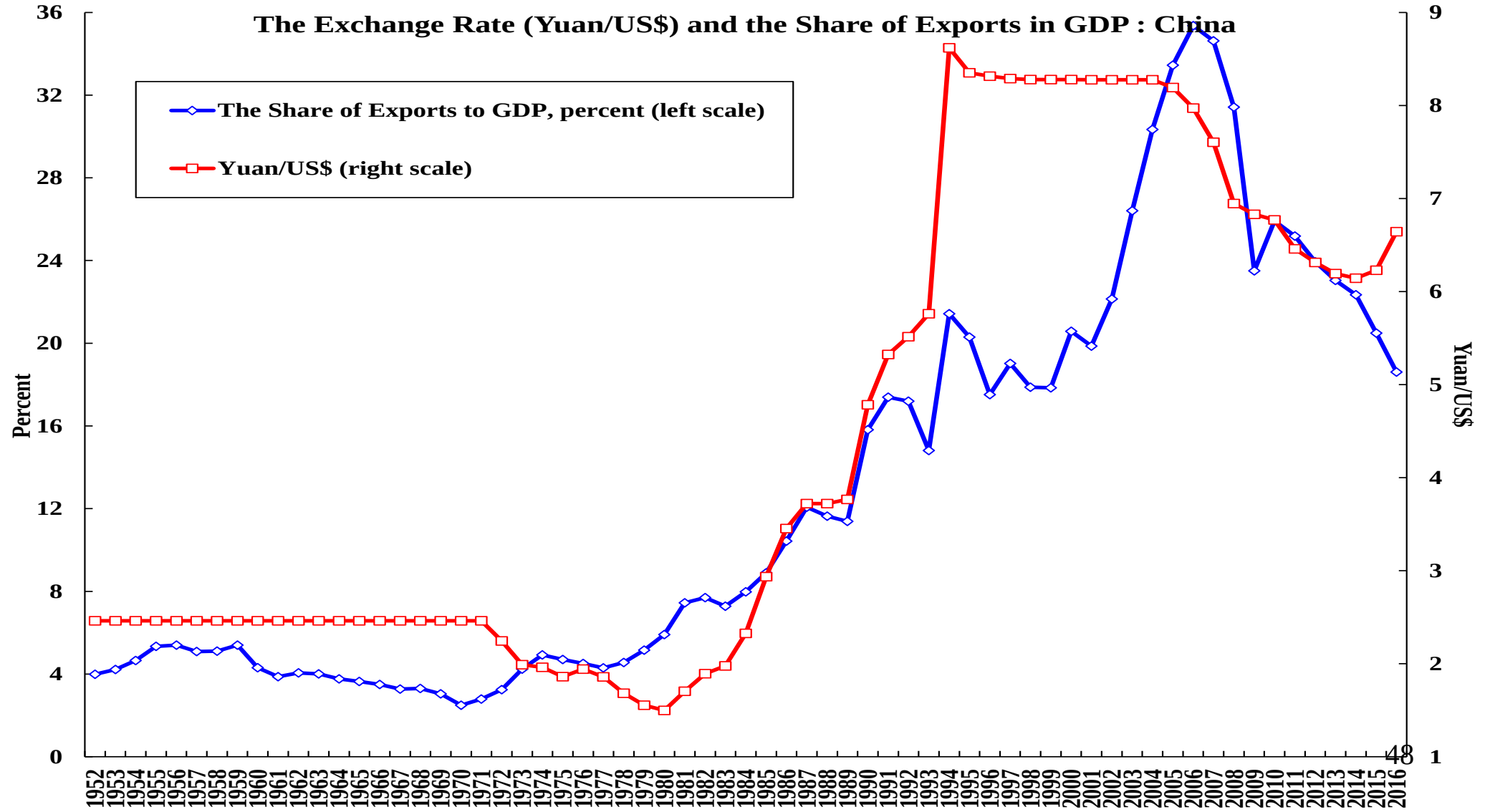
The Nominal Exchange Rate and Exports as a Share of GDP: Taiwan



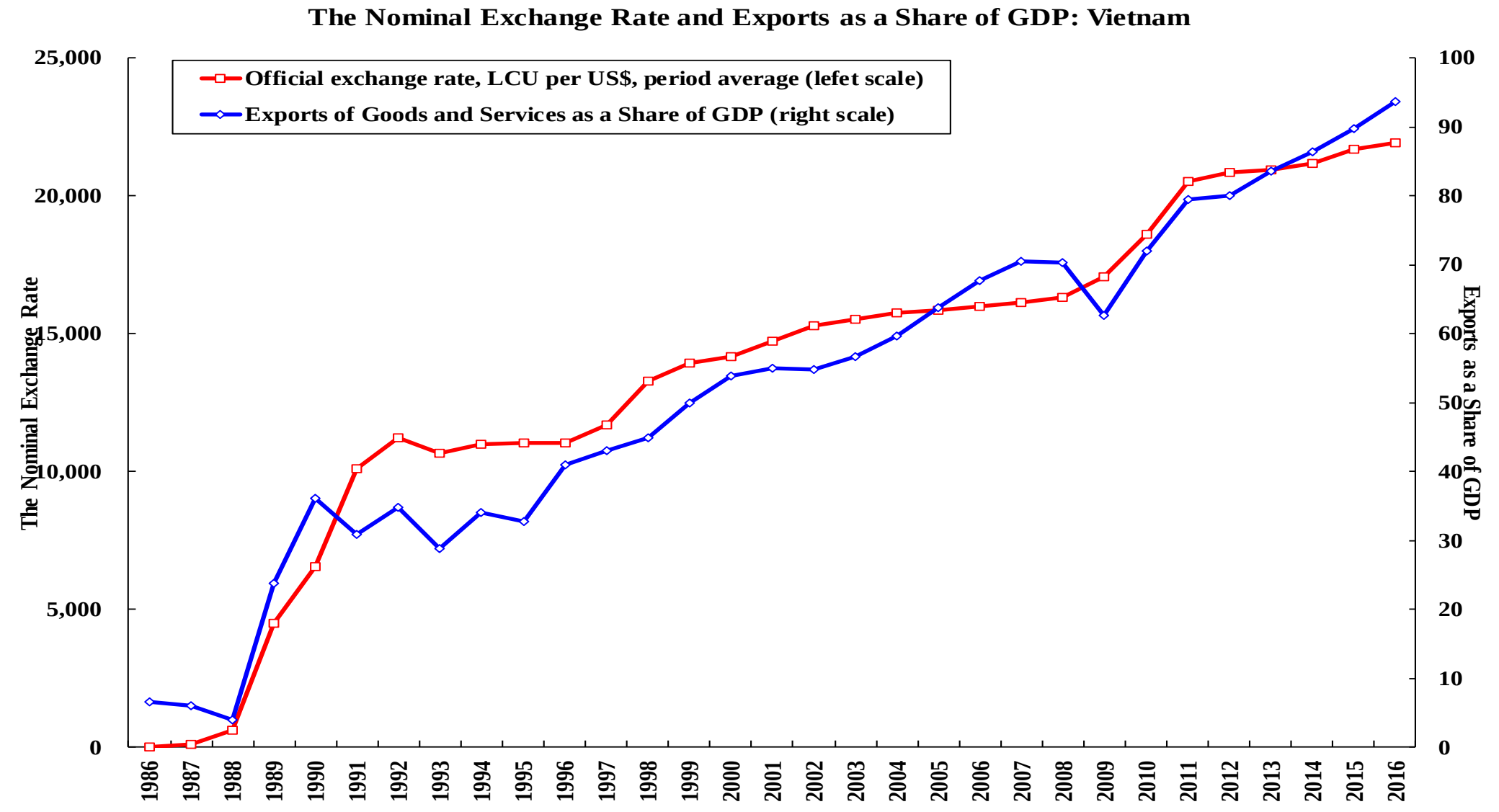
The Nominal Exchange Rate and Exports as a Share of GDP: South Korea



The Nominal Exchange Rate and Exports as a Share of GDP: Mainland China



The Nominal Exchange Rate and Exports as a Share of GDP: Vietnam



The Sources of Economic Growth

- Our research, starting with Kim and Lau (1994), indicates that the bulk of the economic growth at the beginning stage of economic development can be attributed to the accumulation of tangible capital. There is little evidence of technical progress or growth of total factor productivity at the early development stage. It is only after these economies had made significant investments in human capital and R&D capital over a period of time that they began to have measured technical progress or growth in total factor productivity.
- The exception would be an economy such as China. There was significant inefficiency under the centrally planned system so that with the introduction of economic reform, there would be a significant gain in efficiency, which would be reflected in measured technical progress or growth in total factor productivity. Lau and Zheng (2017) estimated that the extent of inefficiency on the eve of Chinese economic reform was approximately 33 percent, that is, output could have been higher by approximately 50 percent.

Continuity of Governance

- One common feature of the early development stages of the East Asian economies is that they are all characterized by one-party rule, beginning with the Liberal Democratic Party in Japan, the British Colonial Government in Hong Kong, the Kuomintang (Nationalist Party) in Taiwan, President PARK Chung-Hee in South Korea, Prime Minister LEE Kuan Yew of Singapore, and then China and Vietnam, just to name a few.
- The advantages of one-party rule are: (1) It is possible to plan long-term, as there is no need to settle for only short-term outcomes (basic infrastructure, so critical in the early development stage, will only be provided by a government with a long-term perspective); (2) There is consistency and continuity in economic policy; and (3) The households and enterprises can share a common long-term vision and have common expectations about the future.
- Of course, this is not to say that there are no disadvantages to one-party rule. Many countries governed by dictatorships are among the poorest in the world. But when one-party rule works well, it is more efficient than any other system.

Concluding Remarks

- The development experiences of East Asian economies show that an open global economy can provide the environment for developing economies to grow and prosper through international trade.
- The East Asian experiences also show that domestic macroeconomic stability is important. Without macroeconomic stability, no one will think or plan long-term. Investment will dry up. Opening of the domestic economy in the absence of a minimum degree of macroeconomic stability is risky because it will lead to massive capital flight, significant devaluation and even more inflation.
- A low rate of inflation is also essential to the maintenance of a relatively stable exchange rate and the success of an export promotion policy.

Concluding Remarks

- The development experiences of East Asian economies also show that a high domestic savings rate, the existence of surplus labor, and investment in intangible capital provide the necessary domestic conditions for an economy to grow and prosper.
- However, a source of aggregate demand is also needed in order to be able to make full use of the domestic resources. Exports can provide the initial growth in aggregate demand.
- Today, no one argues seriously for import substitution as the sole policy to promote economic development. One important reason is the lack of sufficient domestic demand when the GDP per capita is still low. Another important reason is that what needs to be imported can only be produced domestically at a very high cost, even if it is possible to do so at all. Most economies are better off exporting other things that they can more easily make themselves, capitalizing on their comparative advantages.