The Intellectual Origin of Some Successful Economic Development Policies

一些成功經濟發展政策的學術根源

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Introduction

- In the post-Second World War period, quite a few East Asian economies, beginning with Japan, reached developed economy status. They include Hong Kong, Taiwan, Singapore and South Korea, the so-called “four little dragons”. The four little dragons 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.

Introduction

- The rise of Taiwan, from a poor agricultural economy, to today's vibrant, high-technology developed economy, was viewed as an economic miracle. It was totally unexpected at the time.
- Taiwan was among the first, if not the very first, developing economy to adopt and implement the two economic development policies--the control of inflation and the promotion of exports—that proved to be highly successful in enhancing domestic savings and investment, increasing employment and stimulating economic development. Subsequently, these policies were also widely and successfully emulated by many other developing economies in South Korea, the ASEAN and Mainland China.

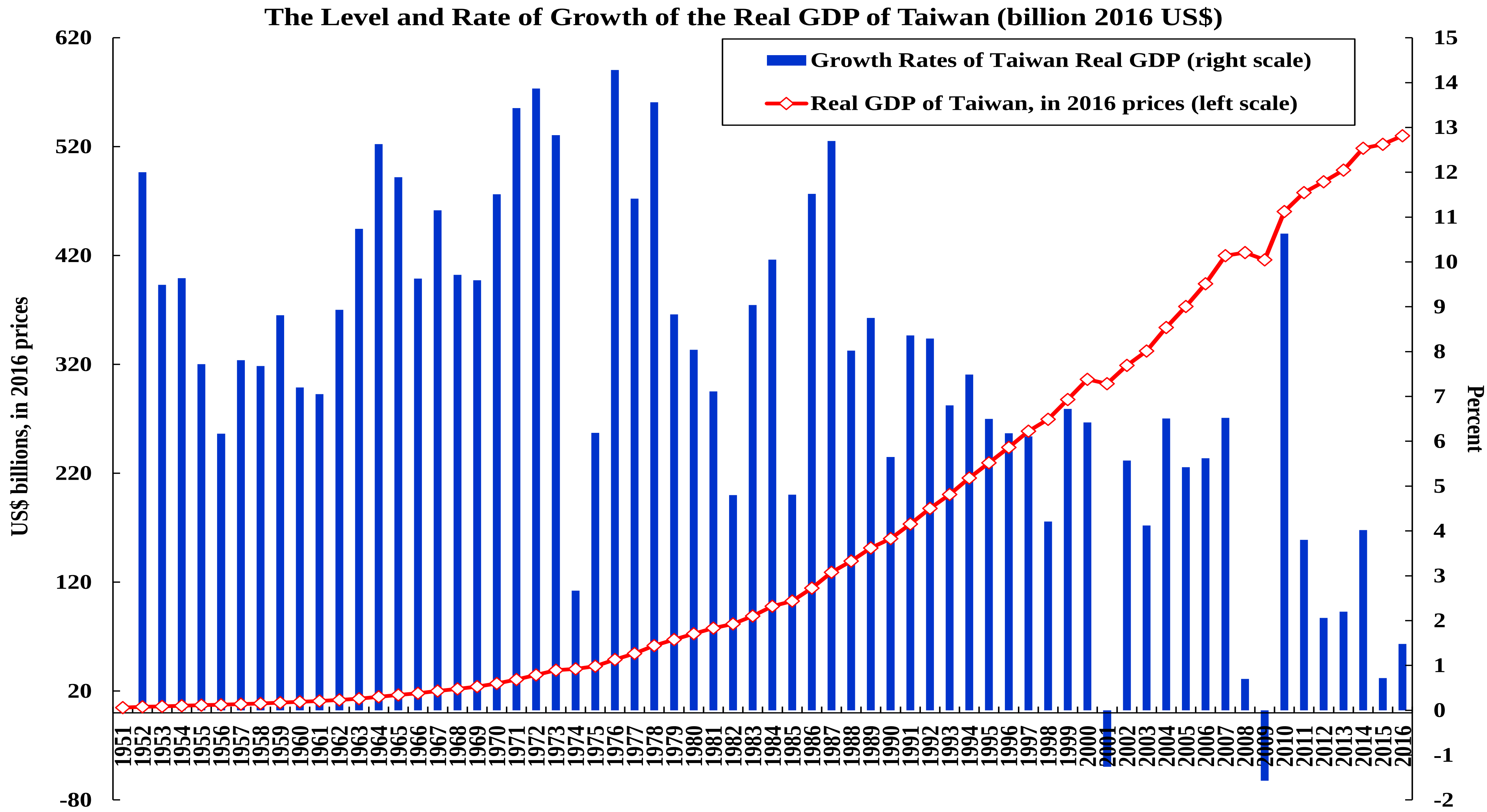
Introduction

- These twin economic policies were introduced and adopted by the government of Taiwan in the 1950s, working mostly through the market.
- The control of inflation was achieved, not through price controls or rationing, but through maintaining a positive real rate of interest and keeping the budget deficit small. The Nationalist government at the time took to heart the lesson learnt on the Mainland in the late 1940s, that the hyper-inflation destroyed whatever support there was in the urban areas for its government, especially among the middle class, and contributed to its defeat by the Communists.
- The rate of interest on bank deposits in Taiwan during this period was raised every time the rate of inflation rose, so that the savers would almost always have a positive real rate of return on their bank deposits.

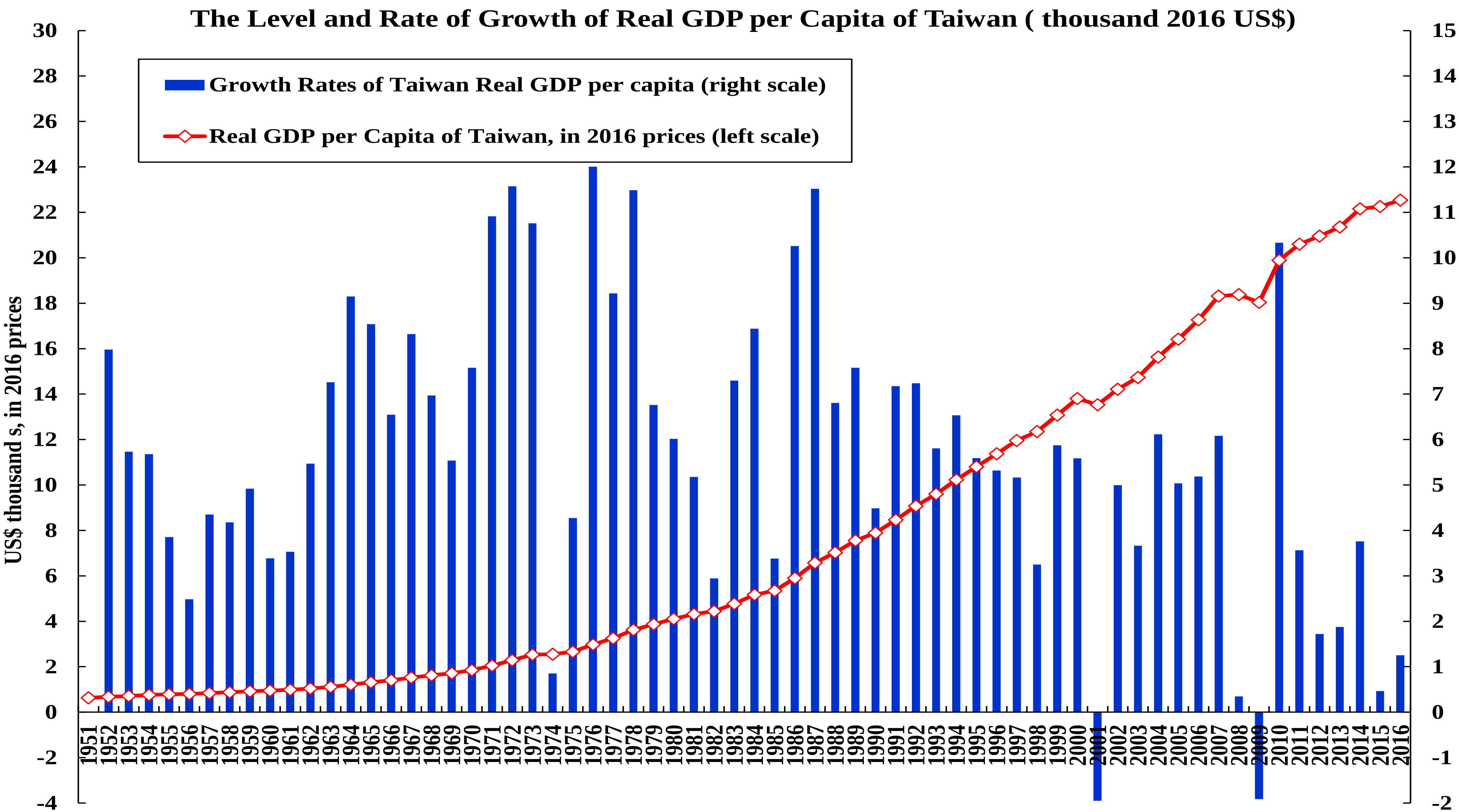
Introduction

- The promotion of exports was achieved, not through government industrial policies or subsidies, but though the gradual introduction of current-account convertibility of the New Taiwan Dollar beginning in the mid-1950s, coupled with a significant official devaluation of the New Taiwan Dollar, and the establishment of the Kaohsiung export-processing zone in 1966 (the first export-processing zone in the world).
- As a result of these policies, the economy of Taiwan began to grow rapidly in the mid-1950s and enjoyed more than three decades of high rates of growth, often in double digits, except for the interruptions of the oil shock years of 1973 and 1980 (see the following charts). However, the rate of growth began to decline in the 1990s.

The Level and Rate of Growth of the Real GDP of Taiwan (billion 2016 US$)



The Level and Rate of Growth of the Real GDP per Capita of Taiwan (thousand 2016 US$)



Introduction

- The ideas of control of inflation and promotion of exports through the use of the market mechanism were original and innovative in the 1950s and different from those promoted by Western economists at the time.
- The late Professors Ta-Chung LIU and Sho-Chieh TSIANG, who taught at Cornell University and the University of Rochester, were the intellectual godfathers of these ideas. Government officials at the time, such as C. Y. YIN, Chia-Kan YEN, Kwoh-Ting LI and Kuo-Hwa Yu, also contributed.

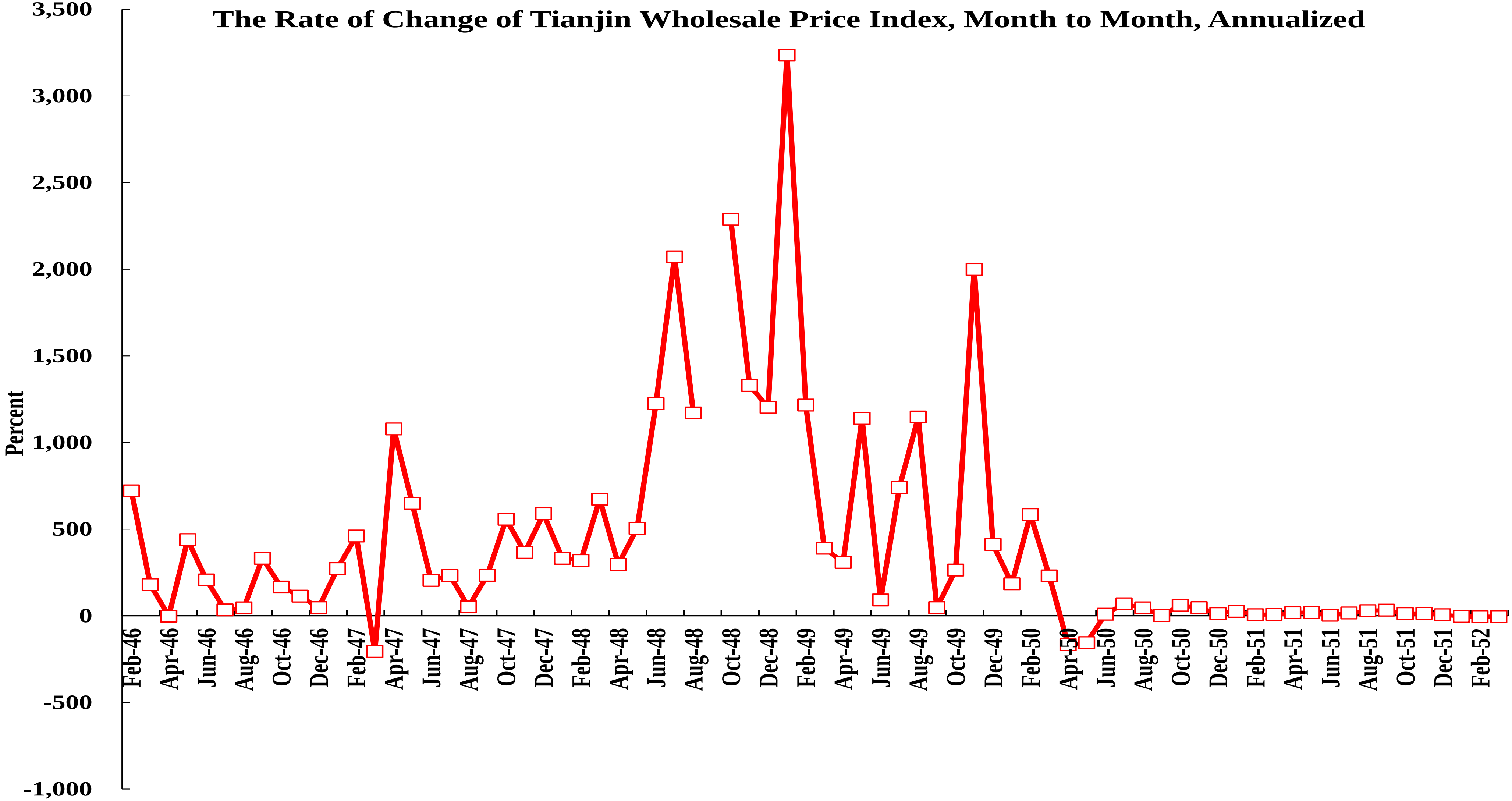
Control of Inflation

- In 1947, 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 the hyper-inflation on Mainland China at the time. 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 the Communists adopted and implemented Professor TSIANG's proposal when they came to power in 1949, 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.

Control of Inflation

- 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.

The Rate of Inflation on the Mainland, 1946-1952 (Tianjin Wholesale Price Index)



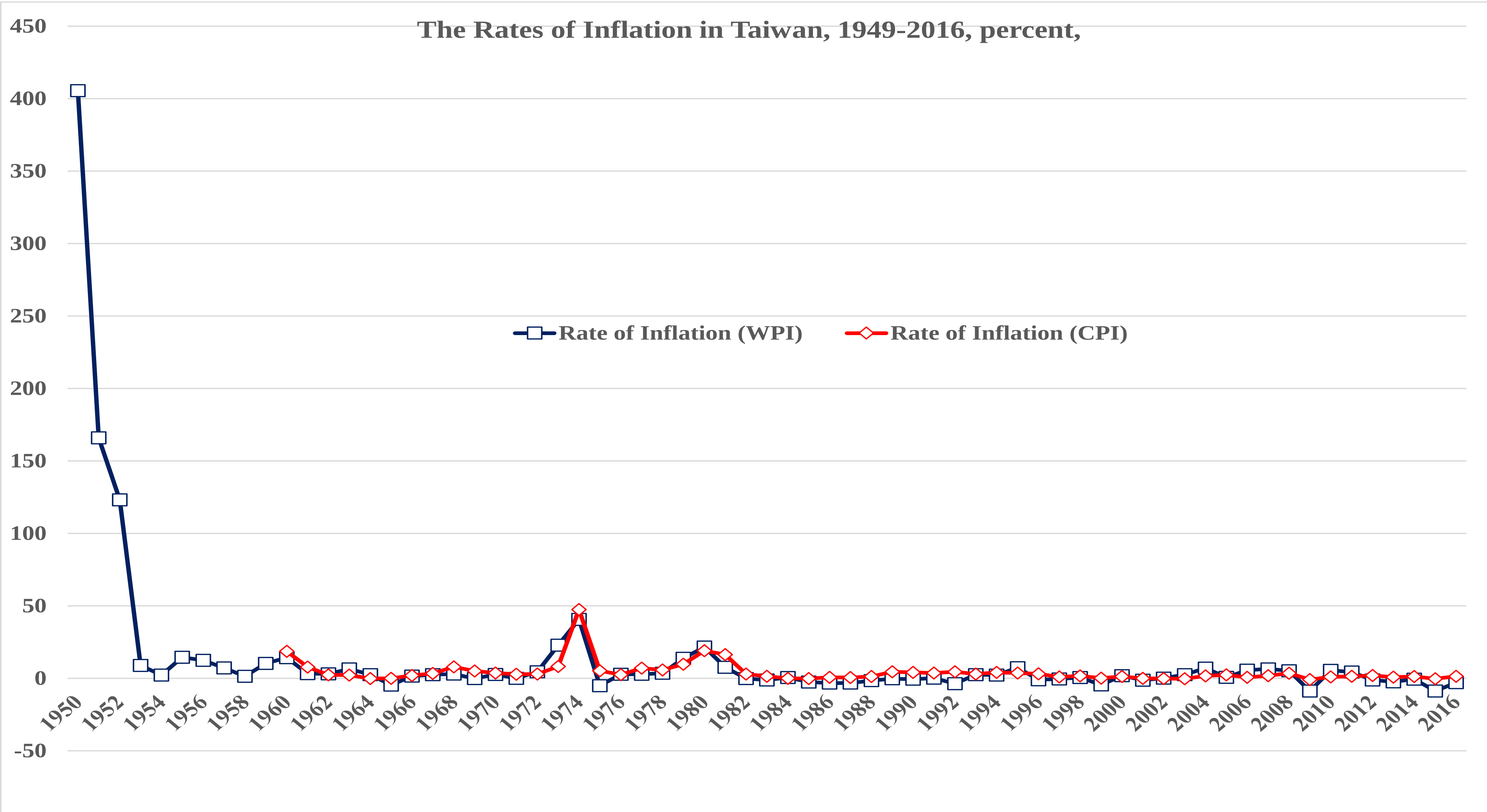
Control of Inflation

- Nevertheless, the Nationalists took to heart the lesson they learnt on the Mainland, and put the control of inflation in Taiwan on a high priority. In 1950, the rate of inflation in Taiwan, as measured by the wholesale price index, was more than 400% per annum. By 1953, it was brought down to less than 9% per annum. The Bank of Taiwan, the de facto central bank at the time, maintained its rediscount rate above 40% during this entire period. In the private sector, the interest rate on loans was above 100% per annum.
- The government of Taiwan basically tried to maintain a positive real rate of interest most of the time, which would have a similar effect for savers as indexing the rate of interest on bank deposits to the rate of inflation.

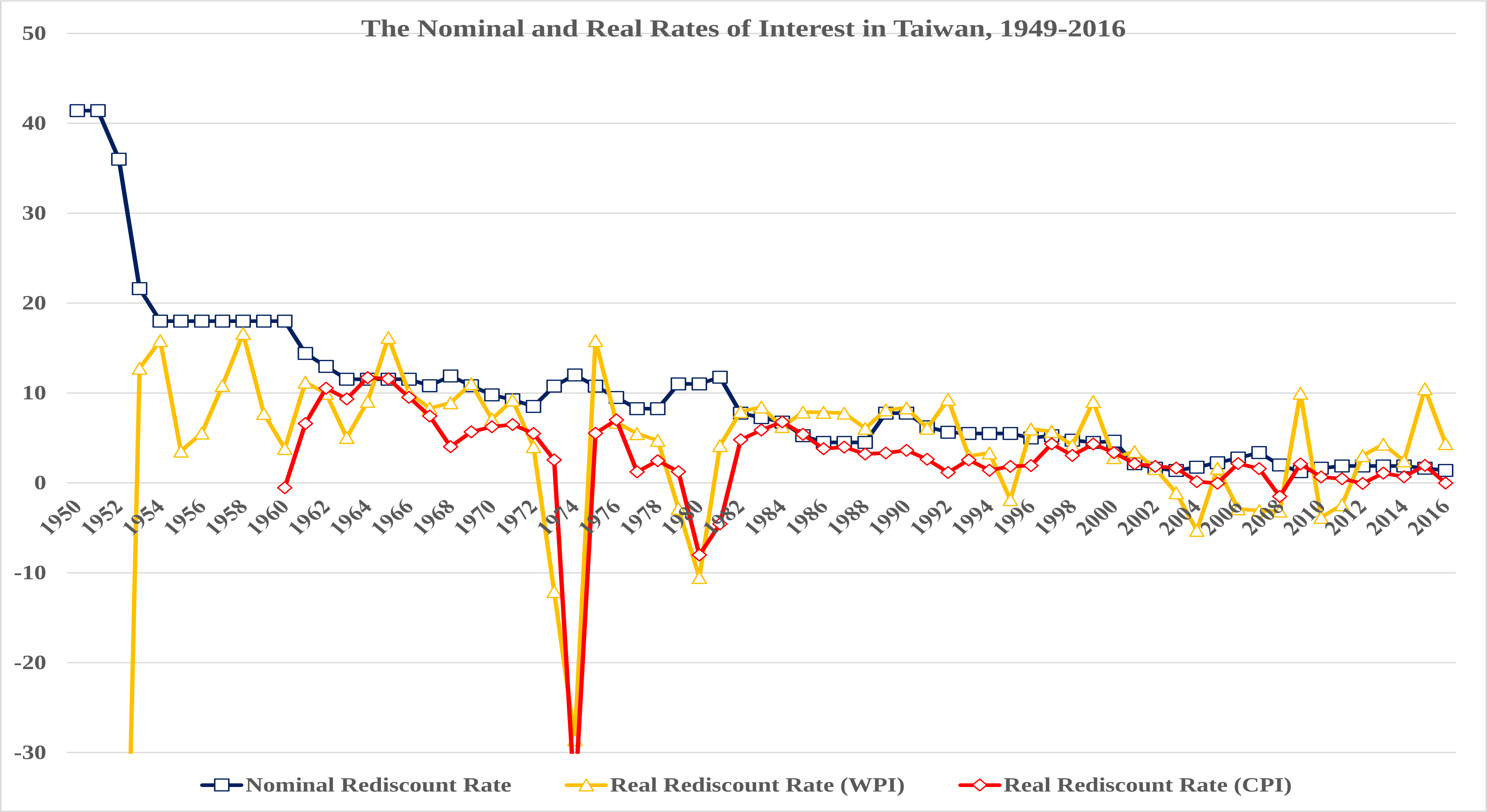
Control of Inflation

- The control of inflation in Taiwan was facilitated by an income tax reform, led by the late Prof. Ta-Chung LIU, which helped to balance the government budget, making it unnecessary to monetize the budget deficit.
- Price stability encourages saving, enables long-term investment planning, and contributes to a more equitable distribution of income.
- Low inflation also contributed to the stability of the exchange rate, which in turn would facilitate international trade and foreign direct investment (FDI). The real economy prefers stability and predictability. Only speculators prefer volatility.

The Rates of Inflation of Taiwan, 1949-2016 (The Wholesale and Consumer Price Indices)



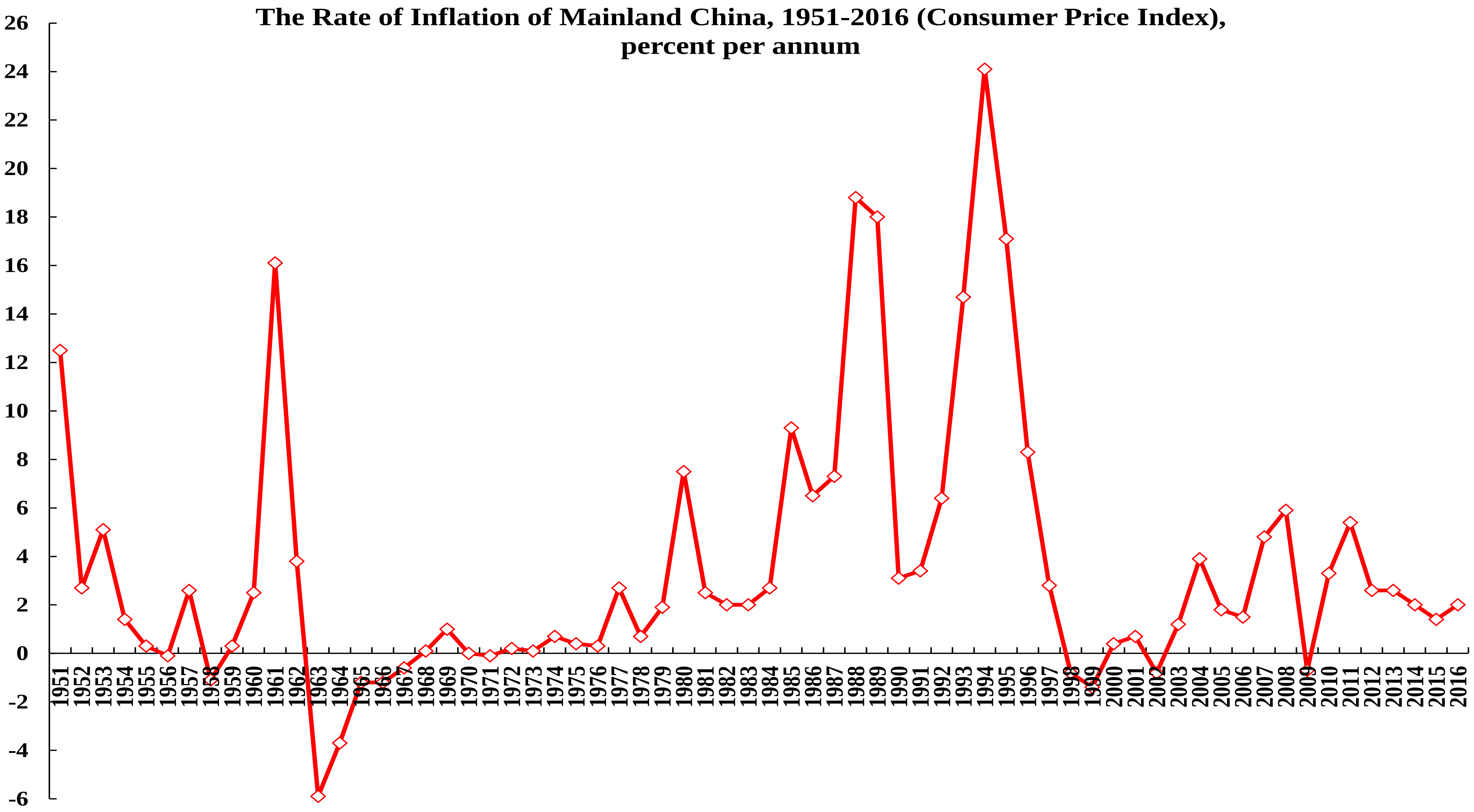
The Nominal and Real Rates of Interest in Taiwan, 1949-2016



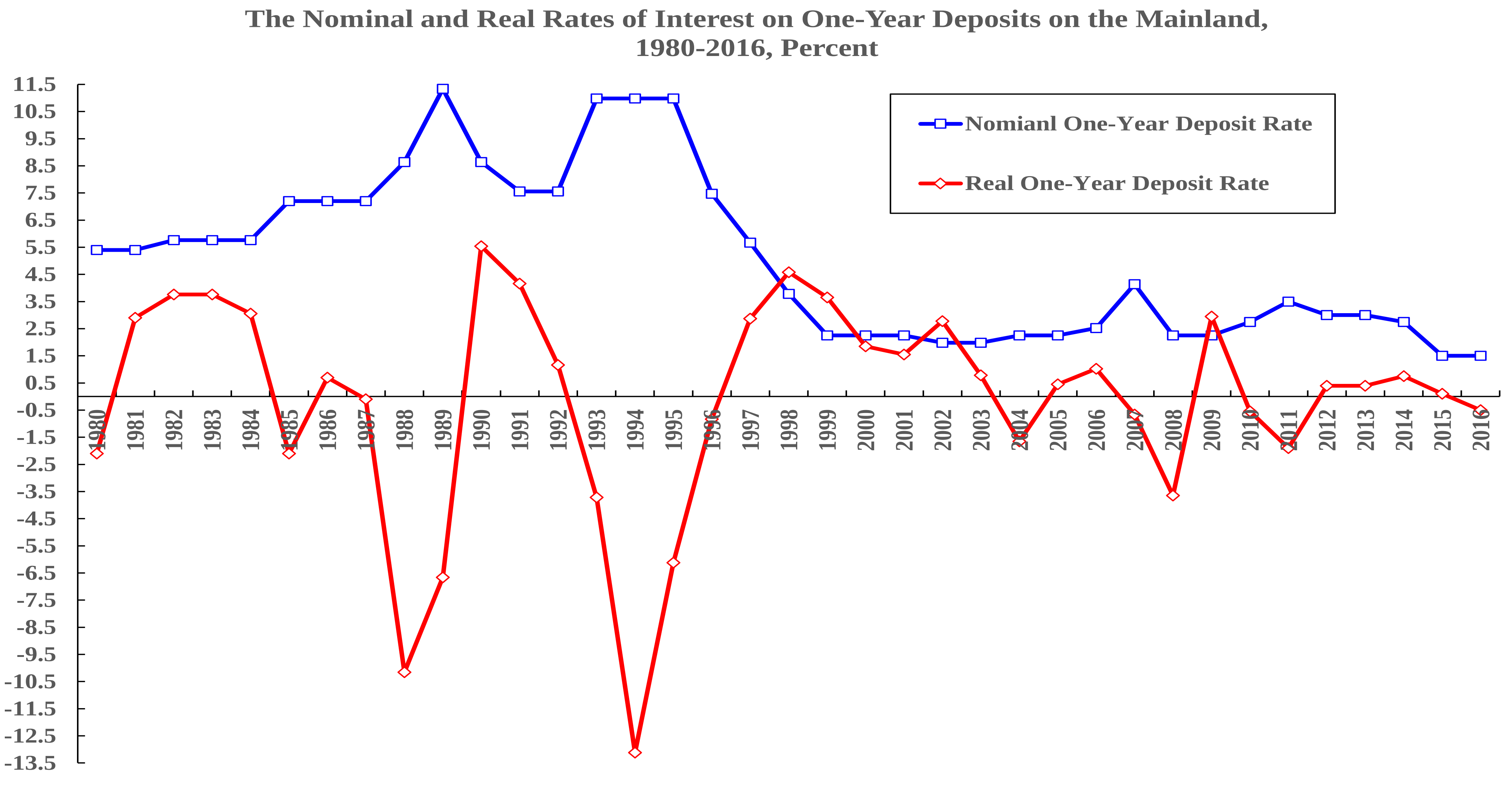
Control of Inflation

- Indexed bank deposits were introduced again on the Mainland in September 1988 in response to widespread panic buying and hoarding by the public because of its fear of inflation. They were effective in changing the inflationary expectations.
- The indexed bank deposits were once again introduced in 1993 when the rate of inflation rose again.
- At this time, the commercial banks were still owned and operated by the government.

The Rate of Inflation of the Mainland, 1951-2016 (Consumer Price Index), percent p. a.



The Nominal and Real Rates of Interest on the Mainland, percent per annum, 1980-2016



Promotion of Exports

- 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.
- Taiwan operated with multiple exchange rates in the early 1950s. Initially, the official exchange rate was way over-valued, which favored imports and deterred exports. For example, in 1950, the exchange rate was NT$5/US$. In order for Taiwan to be able to export, its products must be competitive on the world market at international prices (i.e., in US$ terms).
- Through a series of devaluations, as well as the device of the "certificate of allocated exchange (結匯證)", Taiwan essentially achieved current-account convertibility in 1958. This was coupled with a unification of its multiple exchange rates through a significant devaluation of the official exchange rate from NT$24.78/US$ first to NT$36.38/US$ in 1959 and finally to NT$40/US$ in 1963.

Promotion of Exports

- The "certificate of allocated exchange (結匯證)" was actually an ingenious device to discover the market-clearing exchange rate, subject to the constraint that the demand for foreign exchange for imports is equal to the supply of foreign exchange from exports.
- The following is a simple example to illustrate how it worked. An exporter was allowed to retain a certain proportion of its foreign exchange proceeds, which it could sell to an importer with an approved import permit in a "free" foreign exchange market in which exporters with foreign exchange to sell and importers with import permits needing foreign exchange can buy. Thus, the importer would effectively have to pay a premium over the official exchange rate for the foreign exchange to pay for its imports. The exchange rate to the importer would be the sum of the official exchange rate and the premium that it had to pay for each US$ worth of "certificate of allocated exchange" that it bought on the "free" market.

Promotion of Exports

- One can think of the foreign exchange market at the time as a dual market with the government allocating fixed quantity quotas of foreign exchange to selected parties at the official exchange rate and a parallel "free" market participated by exporters and importers, trading foreign exchange in the form of "certificate of allocated exchange". (Thus, this was an early use of the "dual-track approach" which could be shown to basically achieve economic efficiency.)
- We may note that the dual-track approach allows the necessary market institutions to be created and nurtured over time and the market participants to adjust gradually to a new price determination mechanism. This avoids the negative effects of the "big bang" or "shock therapy" approach.

Promotion of Exports

- The "Export Processing Zone" was another innovation introduced by Taiwan (apparently by the late Mr. Kwoh-Ting LI). The Kaohsiung Export-Processing Zone (EPZ), which was established in 1966, was the world's first export processing zone.
- The key idea was that all inputs used in the EPZ, including capital equipment and raw materials, would be imported free of customs duty, but confined within the zone, and all outputs would be exported. The only thing supplied domestically would be labor and possibly electric power. The EPZ would also have its own banking arrangements. Thus, much of the bureaucratic red tape could be minimized and avoided. The benefit to the host country is the additional employment.
- This idea has been widely emulated around the world since. The Special Economic Zones established on the Mainland in the 1980s had similar arrangements. "Assembly and processing" trade, which at one time accounted for more than half of Mainland Chinese exports, is based on a similar idea, with bonded warehouses and special industrial parks. Even North Korea has special economic zones, for example, the Kaesong Industrial Park at the border between North and South Korea.

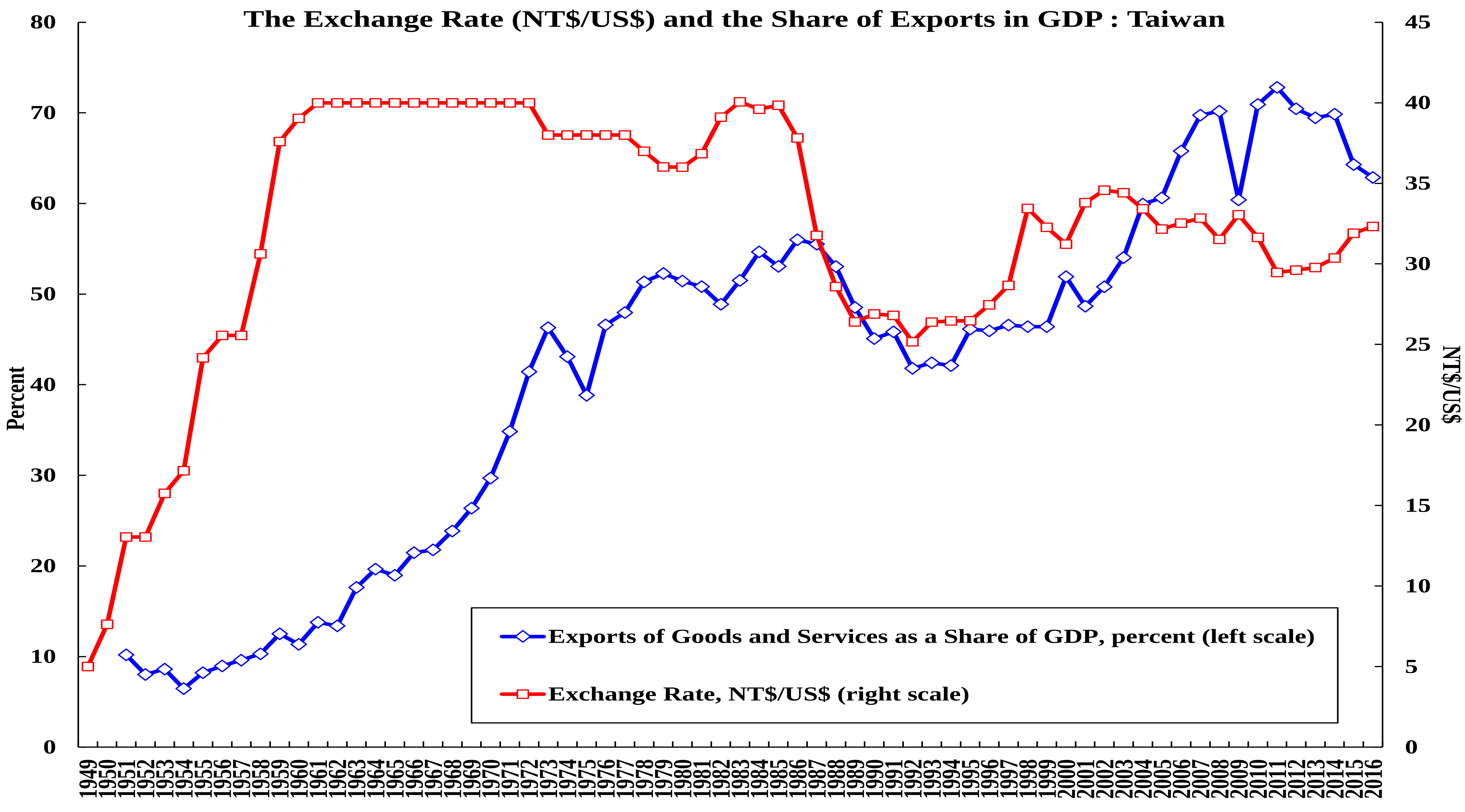
Promotion of Exports

- One debate among development economists in the 1960s focuses on trade versus aid. Should the developed economies open their markets to the developing economies for trade, so that they can make economic progress and grow, or should they just provide aid to the developing economies?
- Exports can generate foreign exchange the availability of which in turn encourages foreign direct investment (FDI), providing a solution to the exit or repatriation problem. Inbound FDI to an economy is more likely to occur if there is a ready source of available foreign exchange for the eventual repatriation of the principal and profits.
- Of course, devaluation can be inflationary, especially for small open economies. That makes the control of inflation even more important, so that the real benefits of devaluation are not too quickly eroded.

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.
- 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.

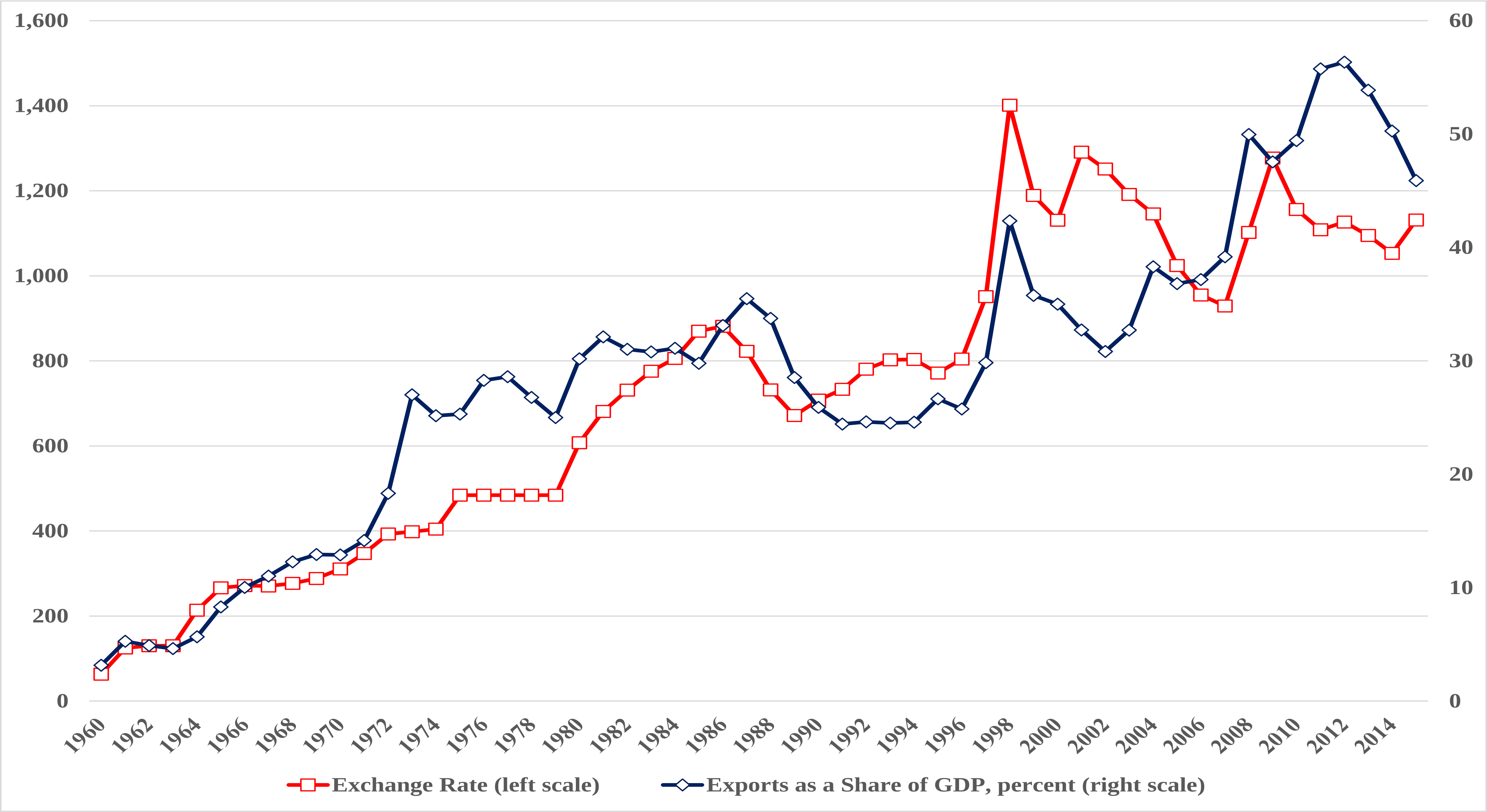
The Nominal Exchange Rate and Exports as a Share of GDP: Taiwan



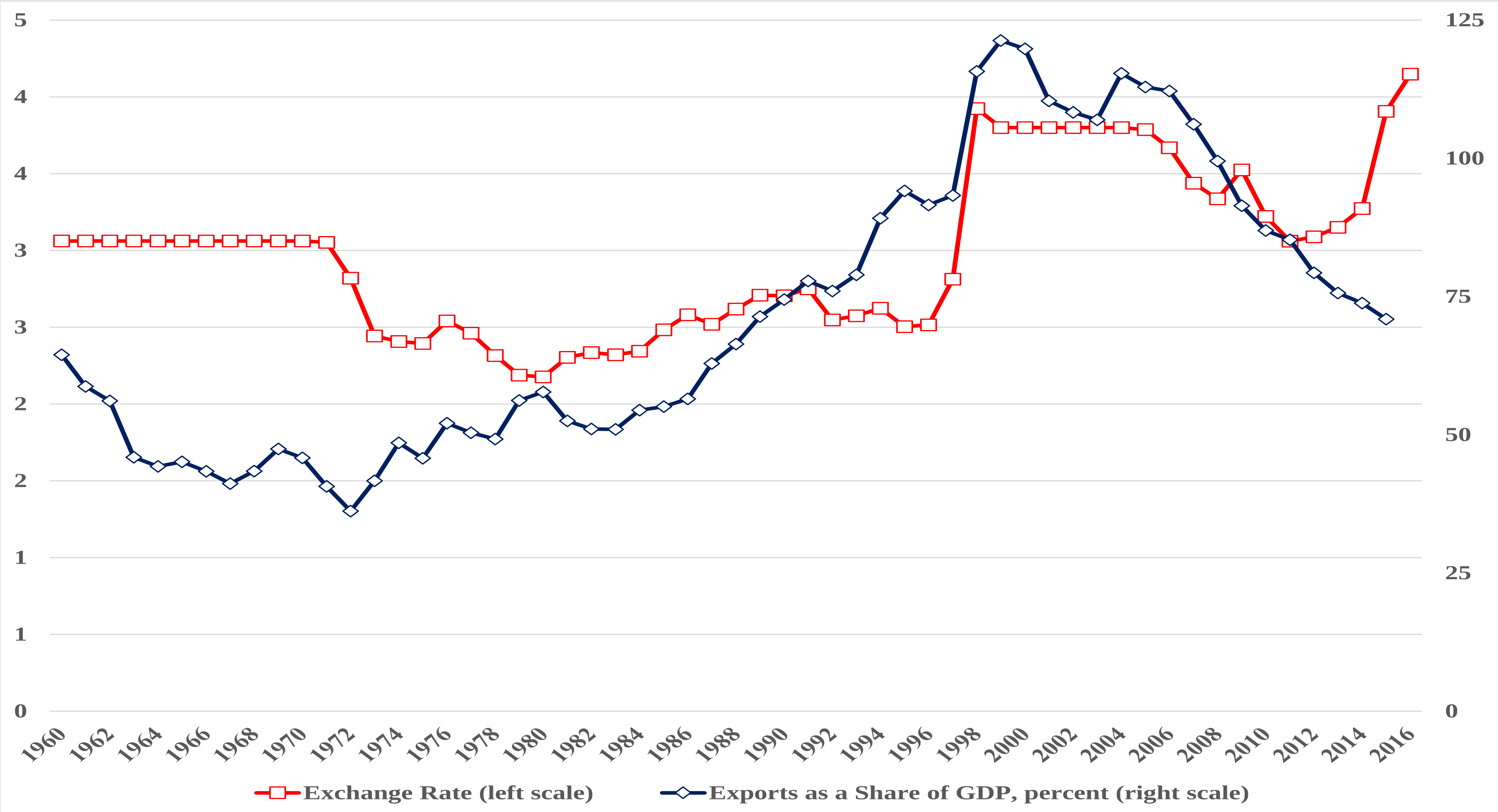
Promotion of Exports

- The patterns in South Korea, Mainland China, Thailand and Vietnam are similar.
- Mainland China also operated parallel foreign exchange markets in the early 1990s--an official market and an "adjustment" market, on which the exporters could sell their retained foreign exchange to importers with approved import permits. This was similar to the "certificate of allocated exchange" system used in Taiwan in the late 1950s.

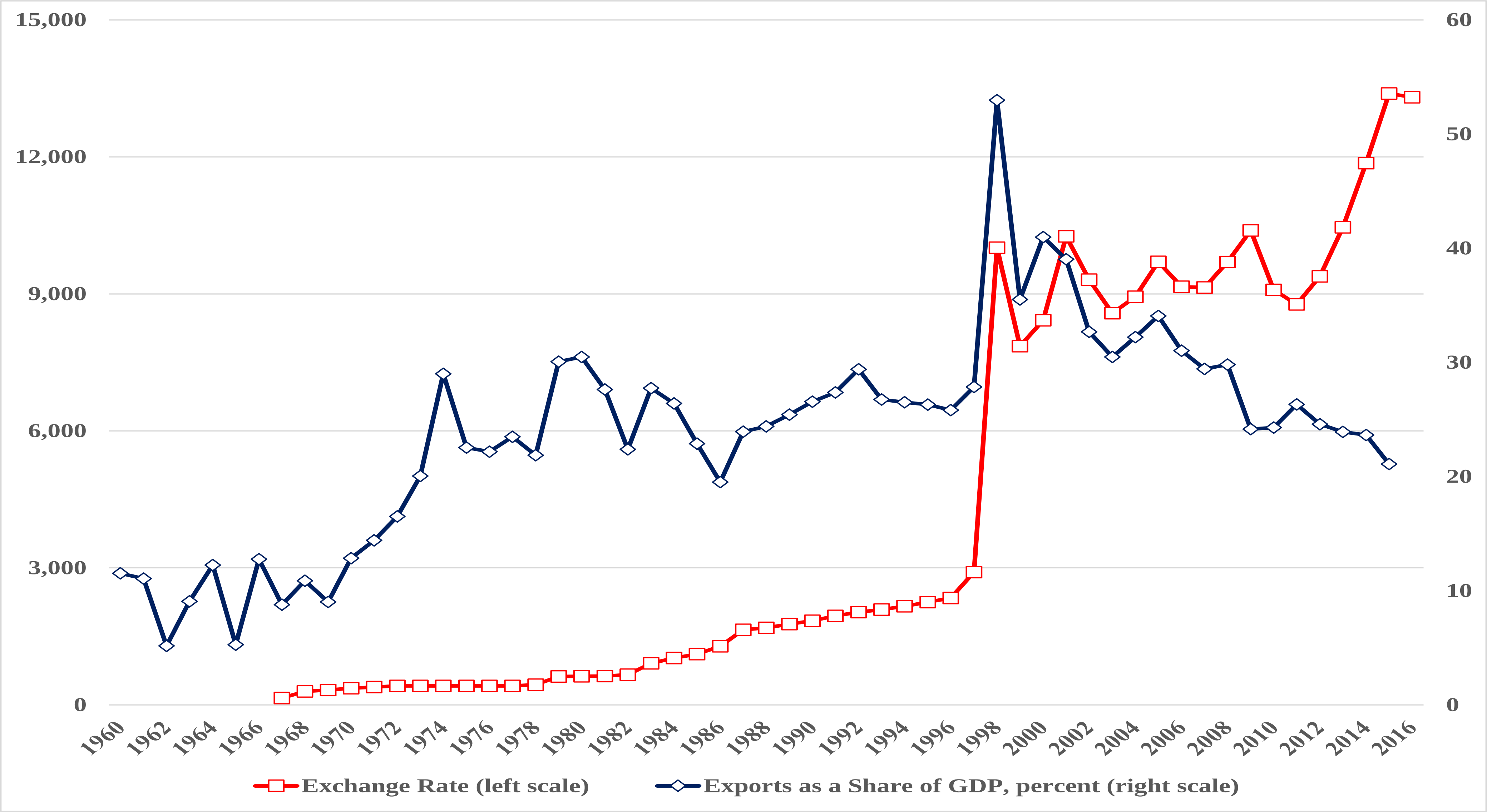
The Nominal Exchange Rate and Exports as a Share of GDP: South Korea



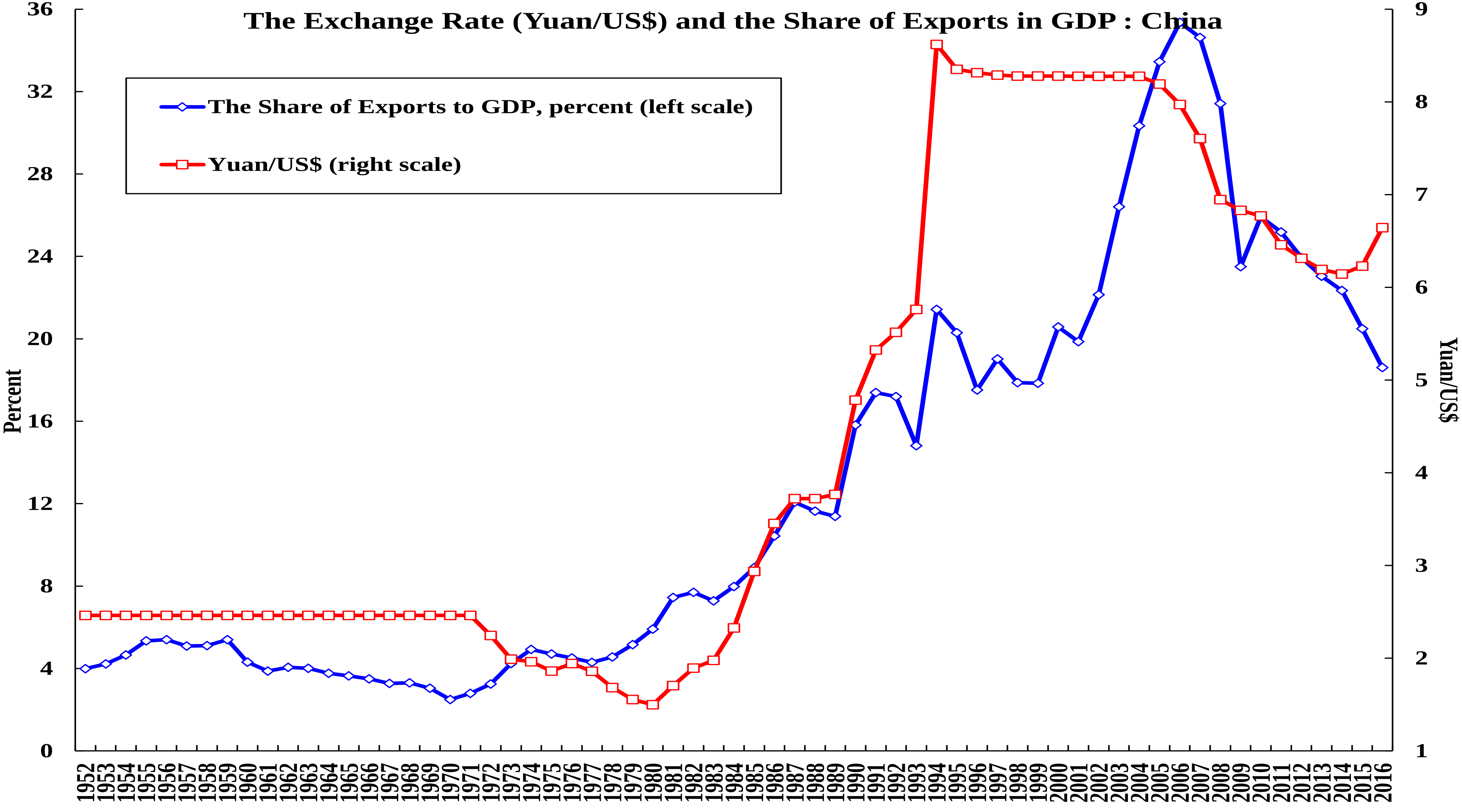
The Nominal Exchange Rate and Exports as a Share of GDP: Malaysia



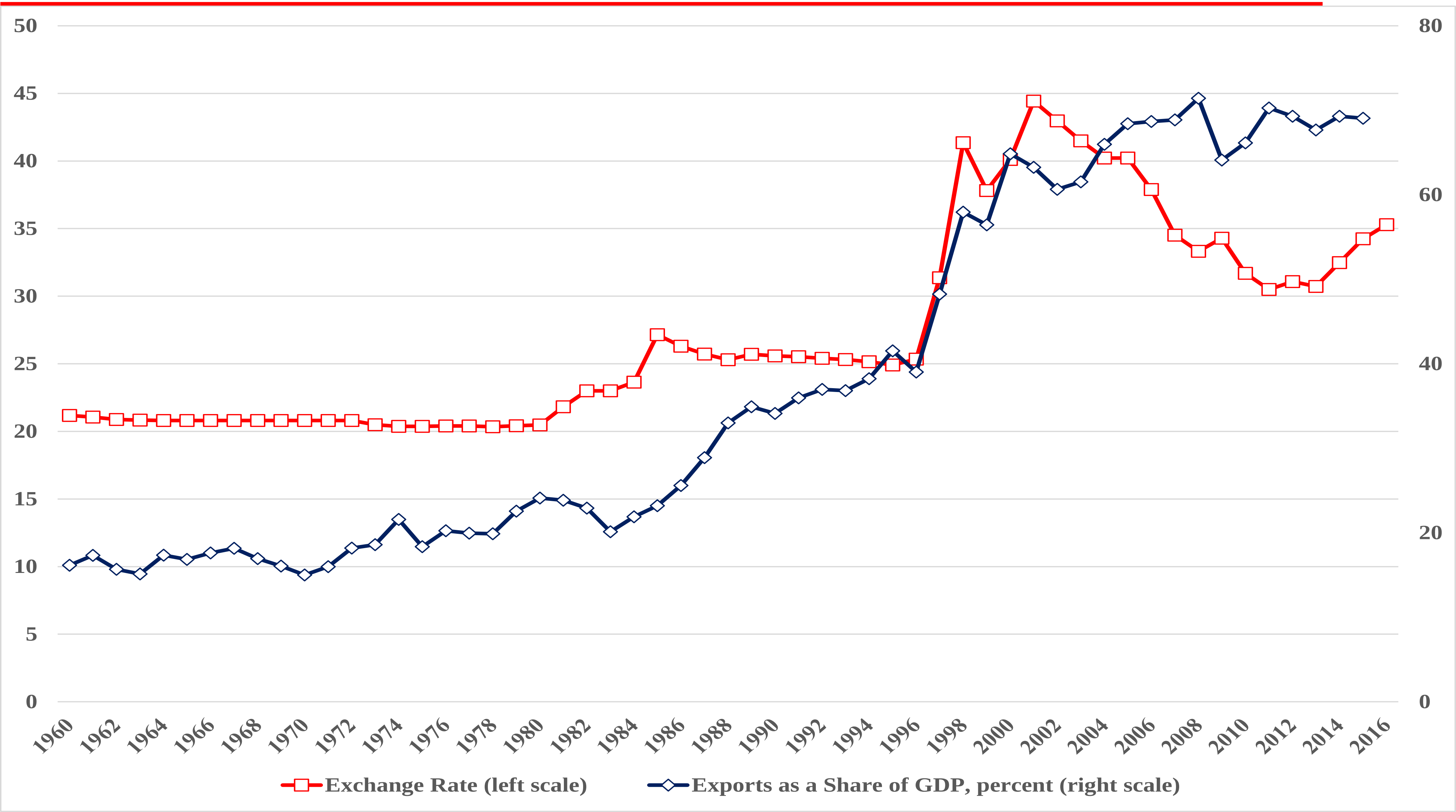
The Nominal Exchange Rate and Exports as a Share of GDP: Indonesia



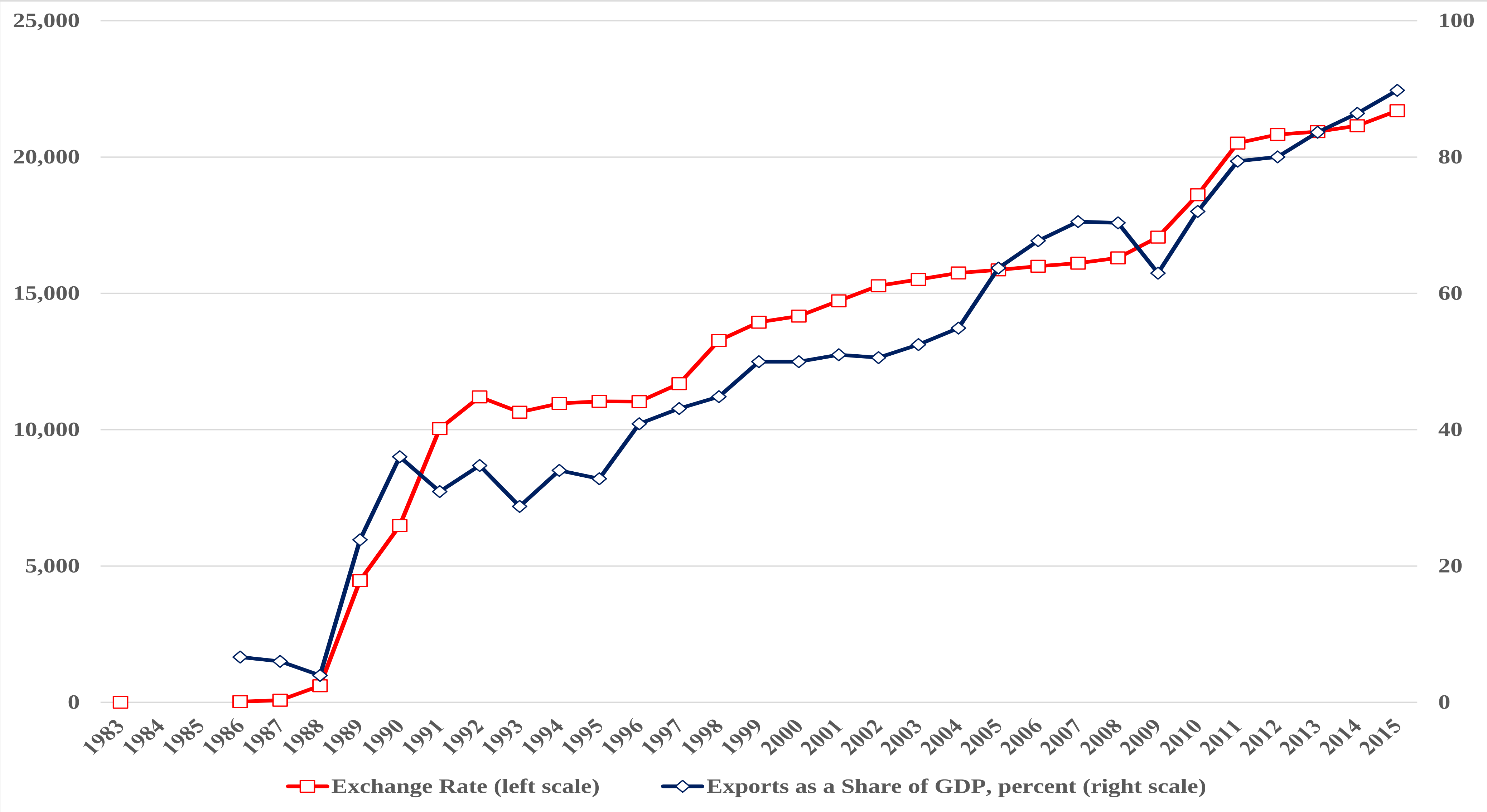
The Nominal Exchange Rate and Exports as a Share of GDP: Mainland China



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



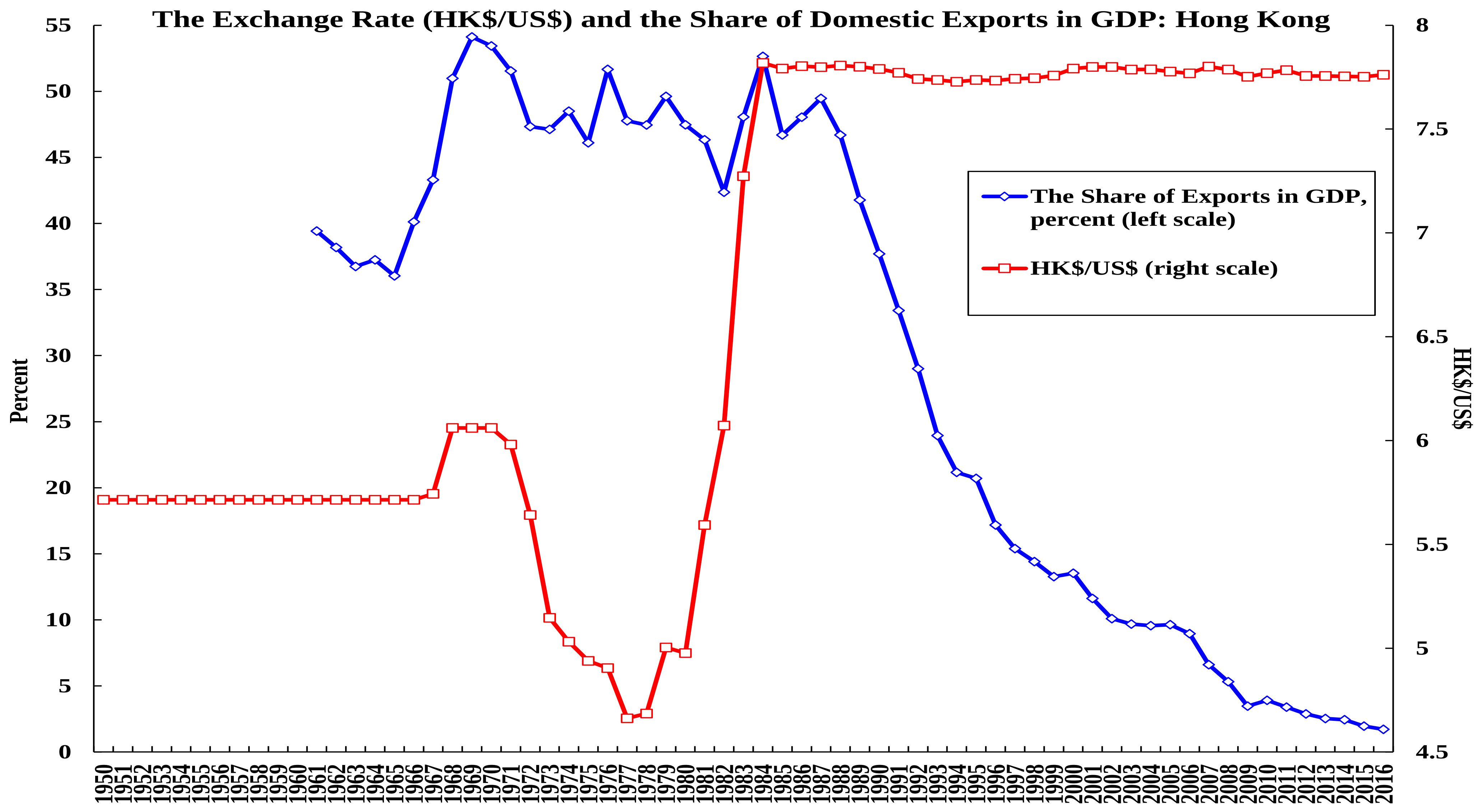
The Nominal Exchange Rate and Exports as a Share of GDP: Vietnam



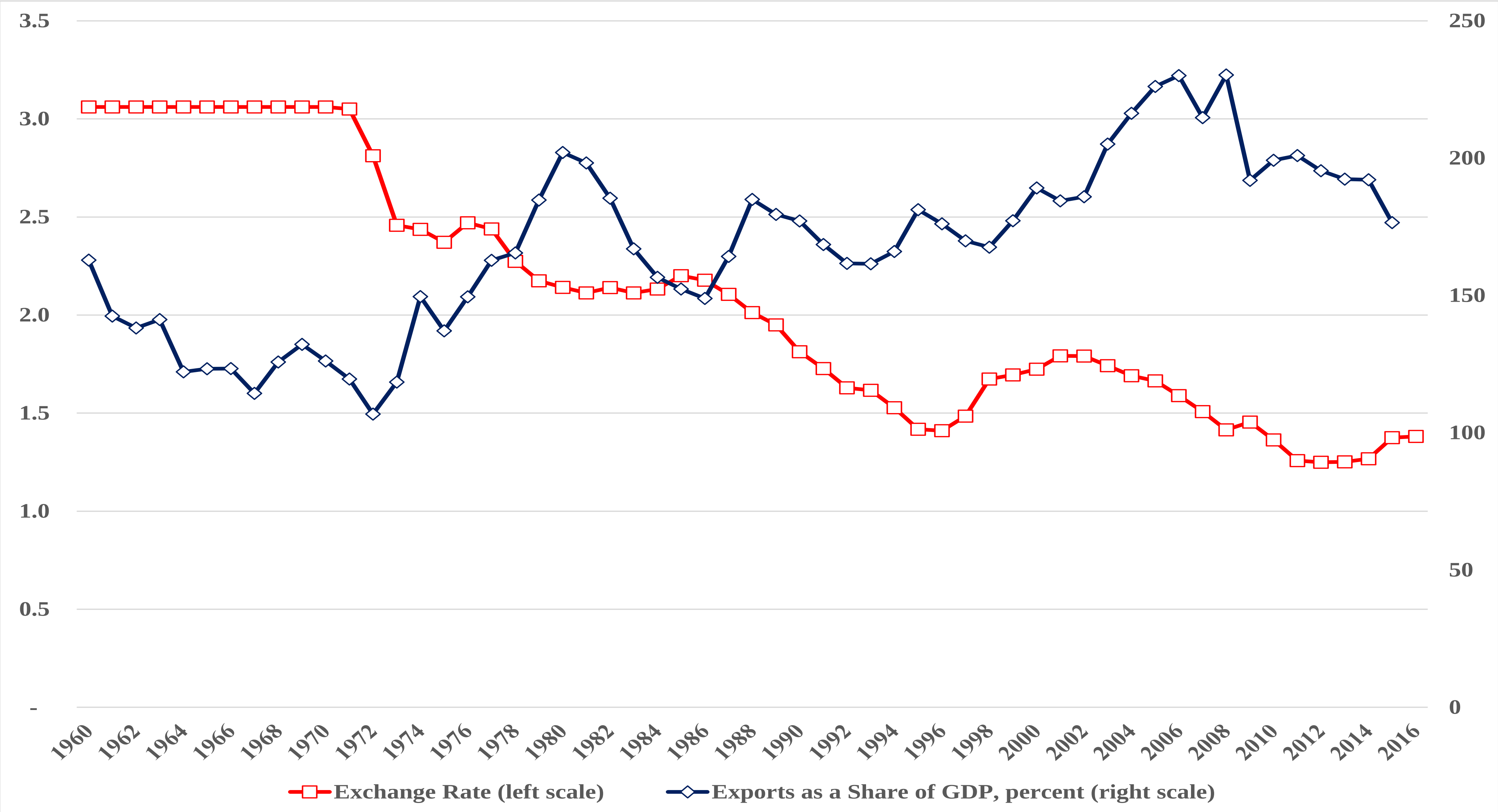
Promotion of Exports

- The experience was different in Hong Kong and Singapore. Hong Kong has always been a free port, and there has never been import control or capital control in Hong Kong, so that no major adjustment in the exchange rate or in import tariffs and quotas were necessary. Moreover, Hong Kong also has the benefit of flexible nominal wage rates, which to a large extent can substitute for changes in the nominal exchange rates.
- Singapore is similar to Hong Kong in terms of being a free port, with full currency convertibility and no capital controls. However, Singapore export data are not disaggregated by domestic exports and re-exports. The charts of Hong Kong and Singapore are therefore not directly comparable.

The Nominal Exchange Rate and Domestic Exports as a Share of GDP: Hong Kong



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



Concluding Remarks

- The control of inflation also helped to prevent the income distribution from becoming too unequal. Inflation favors net borrowers and penalizes net savers. Low-income individuals are the least able to cope with the effects of inflation.
- Indexing of bank deposits to the rate of inflation was used twice again in Mainland China, once in September of 1988, and the other time in the early 1990s. They were both effective in changing the inflationary expectations and bringing down inflation.
- Inflation-indexed bonds are now offered by more than twenty countries, including the U.S. (in the form of Treasury Inflation-Protected Securities (TIPS)).

Concluding Remarks

- Today, no one argues seriously for import substitution as the sole policy to promote economic development. One 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.
- For example, building an entire airplane is difficult. Many economies are better off exporting other things that they can more easily make rather than trying to produce a passenger jet themselves, capitalizing on their comparative advantage.
- The exceptional case is when they are prevented from participation in the world economy because of sanctions. For example, South Africa was forced to make oil from coal (the Sasol Project) because it could not buy oil on the world market before the 1990s.

Concluding Remarks

- I would be remiss if I do not mention the other economic reforms undertaken in Taiwan in the 1950s which were also quite helpful. They include the land reform—the implementation of the "land to the tiller program", and the institution of mandatory education. The investment in education (human capital) also helped to bring about the relatively egalitarian distribution of income during that period.
- Taiwan was truly a pioneer in terms of devising, adopting and implementing successful economic development policies. These twin policies of control of inflation and promotion of exports, making use of market institutions, have stood the test of time, with many other economies following Taiwan's footsteps, including the Mainland. The economists who introduced these policies, Professor TSIANG and Professor LIU, should be given due recognition and credit.

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