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Difficulties and Challenges: Japan's Post-War History of Economic Trends and Monetary Policy

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by YOSHIO SUZUKI

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Difficulties and Challenges, Japan's Post-War History of Economic Trends and Monetary Policy

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Abstract

This is a summary paper of the author's book in Japanese, Difficulties and Challenges, Japan's Post-War History of Monetary Policy and Economic Trends (Iwanami Shoten, 2016). For the Bank of Japan, these 70 years are indeed a repetitive succession of difficulties and challenges, and resulting successes and failures. The first difficulty was to pursue two contradictory policy purposes, namely stimulating investments to restore supply capacity and depressing hyper inflation more than 300% under a fixed exchange rate in the Occupation period. Unexpectedly, an enormous increase in external demand generated by the Korean War in 1950-51 solved the dilemma and the pre-war level of the Japanese economy was restored in 1953. The successful catch-up story of extraordinary rapid growth started thanks to the Bretton Woods System under which free trade, capital, and technology transfer enabled Japan to perform export-investment led high growth and to achieve industrialization around 1970.

Then three surprise shocks came from abroad: the so-called Nixon shock followed by the Smithsonian Accord in 1971; the Plaza Accord and Louvre Accord in 1985-87; and the Lehman shock in 2008. Each shock caused sharp appreciation of the yen, but the economic implications from each are different. The essence of the first is a correction of the depreciated yen under the fixed nominal exchange rate system in which the effective real rate of the yen had been in a depreciating trend because of the inflation rate differential between Japan and abroad. Japan's policy reaction was so extreme as to cause domestic inflation which further flared in the first oil crisis.

The second shock would have been also smaller if the binding of Japanese monetary policy by participating in the so-called "International Policy Coordination" program had not caused asset bubbles as the consequence of an internationally-compelled easy money policy.

The third was a real shock because it spoiled the successful exit from deflation and turned "the loss of 7 years" to "15 years".

The story of successful "Stronger Country" Japan in 1975-84 and the failure of too hasty fiscal consolidation in 1997 which resulted in extended deflation are also discussed. As for today's monetary policy, since the final goal of full employment is almost achieved, pursuing an intermediate target of 2% inflation rate is meaningless, and the BOJ should start the exit policy. A positive immigration policy to increase Japan's working population is also proposed to raise the potential growth rate and the natural rate of interest to recover the effectiveness of monetary policy.

I. Japan's Economy and Monetary Policy in the Developing Period

1. Industrial Reconstruction under the Hyper Inflation and the Risk of Economic Crisis

When the war was over in 1945, 25% of Japan's national wealth was lost and the level of industrial production was 43% lower than the 1941 peak. In fiscal 1946, while the real GNP was 53% of the 1939 pre-war peak, the nominal GNE was 14.3 times as much as the pre-war peak as a contingence of rampant inflation. According to the published statistics, the inflation rate of the wholesale price index was 4.6 times, and that of the retail price index was 6.1 times in 1946. Actual inflation rate must be far higher since black market prices were not included in the indices. Monetary policy faced difficulty in pursuing two contradictory purposes at the same time, namely stimulating investments to restore supply capacity and depressing the hyper inflation.

The sources of exploding demand were three. First, there were enormous fiscal expenditure for compensation to the former military and munition factories, and the costs of Allied occupying forces. The amount was larger than fiscal expenditure to pursue the war. Second, fiscal expenditures were made to reconstruct infrastructure and of subsidies to reconstruct industries. Third, private consumption and business investments increased based on drawing down deposits and bank lendings. The first and the second fiscal expenditures were financed by government bonds issue which was directly underwritten by the Bank of Japan. BOJ's government bond holding increased 4.9 times in 1946 and 4.2 times in 1947. The private demand for funds was also refinanced by BOJ's lendings to banks which increased 50% each year in 1946 and 1947. Further, the government established the Reconstruction Public Finance Corporation which issued public corporation bonds to provide industrial reconstruction funds. Those bonds were also underwritten directly by the BOJ.

Thus, the real growth rate reached 8.6% in fiscal 1947 and 12.7% in fiscal 1948 and the supply capacity increased rapidly, but inflation rates of WPI remained 2.7 times and that of CPI +82.7% even in 1948 because of BOJ's credit expansion.

In 1949, the U.S.'s strategy toward Japan changed under the circumstance of tightening of the Cold War, in which, as the fortress in Far East Asia, Japanese economy should stand on its own legs without financial support from the U.S. Following the order from the U.S. government through SCAP (Supreme Commander for the Allied Powers), the government budget for fiscal 1949 was set as a balanced budget with small surplus and the Reconstruction Public Finance Corpolation was closed. One of the routes of the hyper inflation, BOJ's direct underwriting of the government bonds and RPFC bonds, was cut. SCAP also instructed the government to set a single exchange rate of 1 dollar = 360 yen in April 25, 1949. This rate was decided to reflect the purchasing power parity based on the wholesale price index (WPI) in both countries. However, since the Japanese WPI did not include black market prices, it was a yen appreciated rate.

In order to prevent the severe recession or even crisis resulting from the balanced budget and the appreciated fixed yen rate, the BOJ increased lending to banks and purchasing government bonds from the private sector.

BOJ succeeded in sustaining the economic growth, but the WPI inflation rate remained 60%, deficit in balance of trade and services decreased only a bit, and Japan had to rely on the financial support from the U.S. In 1950, SCAP, based on the home government instruction, urged not only the balanced budget, but also the stringent monetary policy. It was like "Greece in Euro System" today. In order to keep the fixed exchange rate, if the income adjustments such as super balanced budget and severe tight monetary policy had been used, the economy would have fallen into a recession or even crisis.

At the time when BOJ was obliged to consider a new stringent policy framework, in June 1950, the Korean War suddenly occurred and Japan could get rid of the Greece situation.

The balance of trades and services in 1950 became surplus for the first time since the end of the war, thanks to the U.S. army's big demand for goods and services in Japan and the sharp increase in the Japanese export to the world where big economic expansion occurred, stimulated by the U.S.'s enormous import of strategic goods. The real growth rate reached 11% in 1950, 13% in 1951, and 11% in 1952. The three years of successive high growth was accompanied by increases in real fixed investments of 21% in 1952 and 13% in 1953, and real private consumption per person in 1953 exceeded the pre-war peak. Post-war reconstruction of the economy was achieved.

Politically the Peace Treaty was concluded in September 1951.

2. The Catching up Period of Extraordinary Rapid Growth.

The double-digit percentage growth of the successive three years, 1950-52, finally resulted in the deficit of the trade and service balance in 1953, and the tight monetary policy started in autumn. The resultant recession caused large export pressure and sharp import decline and the business recovery started in December 1954. The balance of trade and services in 1955 became surplus which was higher than the peak at the time of the Korean War.

This is the beginning of the "stop and go" policy in the post-war Japan until 1970. During the time, the Japanese tradable goods prices fluctuated very much due to the "stop and go", but on an average had been very stable, while other industrialized economies, particularly in the U.S. which had no balance of payments constraint, had creeping inflation. Accordingly, the differential of the inflation rate between Japan and other industrialized nations had widened, and the real exchange rate of the yen against the world had been depreciating. This trend in the exchange rate is one of the reason for Japan's high economic growth, averaging 10% in 1955-1970.

Another important reason was the free trade and capital movements under the Bretton Woods system. Japan had manufactured tradable goods with transferred technology of the same level and lower wages so that Japanese exports had been very competitive. Japan's rapid growth was the so-called "export and investments led growth," and the economic policy, including monetary policy, gave efforts to promote exports and fixed investment.

As the result of the depreciating trend in the real effective rate of the yen, the Japanese current account balance had become continuously surplus since 1968. Internationally, Japan had excess assets over liabilities with large foreign reserves, and in the flow of fund tables, the external sector

became the deficit sector. Another important change in the table is the public sector becoming deficit with continuous issue of government bonds. Thus, the excess savings of the household sector became absorbed not only by the business sector, but also by the public sector and the external sector through the various financial markets. Developments in the financial markets were also stimulated by the deregulation of interest rates and of the financial system. The transmission mechanism of the monetary policy was also affected by such developments. The BOJ's market operations caused changes in the various interest rates in financial markets which in turn affected the behavior of financial institutions and business firms. BOJ's "window guidance", which was a kind of moral suasion about increase in lending by big commercial banks to their customers, had become less effective and less important since BOJ's lending to big commercial banks gave way to BOJ's market operations in supplying the monetary base.

Such a change in the transmission channel became decisive from 1974 when the floating exchange rate system started.

3. Sudden Change in the International Environment and BOJ's First Big Failure

Thus around 1970, Japan's industrialization to catch up with advanced nations was achieved.

In the internationally opposite direction of the big change in Japan's economic structure, the collapse of the foundation of the Bretton Woods System were proceeding. In that system the U.S. dollar, the key currency, was always convertible to gold. However, as the current account surplus of Japan and West Germany increased and the current account deficits of the U.S. expanded, the U.S. liquid liability exceeded its gold reserves and the U.S. lost the ability of gold convertibility. [Chart1]

In August 1971, the U.S. one-sidedly declared the suspension of the convertibility between gold and the U.S. dollar, and called the international meetings at the Smithsonian Institute to realign the exchange rates. It was decided to appreciate the yen 16.88% against the U.S. dollar. However, the selling speculation of the dollar vis-à-vis the yen continued in the market, and finally Japan decided to float the yen in February 1973, and European nations followed Japan in March. The Bretton Woods system collapsed definitely and the yen / dollar rate floated up to 254 yen, which is a 42% appreciation from 360 yen.

During the turmoil of the exchange markets, Japanese exports continued to expand and business recovery with the rise in the WPI started in early1972. However, Prime Minister Kakuei Tanaka, who was very surprised at the sharp appreciation of the yen, anticipated the serious recession, so he implemented a large supplementary budget for fiscal 1972 and further prepared the super big budget for fiscal 1973. The BOJ, which had already cut the official rate four times each by 0.25% from October 1970 to July 1971, further cut the rate twice each by 0.5%, once immediately after the Smithsonian conference and once in July 1972. The increase in money stocks (M2) over the year reached 26.5% at the end of 1972, which was higher than during the high growth period, and was called "excess liquidity".

In April 1973, BOJ started to raise the official rate, and in May the government postponed the

implementation of public investment in the budget. However, this change in fiscal and monetary policies was clearly too late; in September 1973, the WPI rose 18.9% and the CPI rose 14.4% over the year. It was when the first oil crisis attacked Japan. In fiscal 1973, 77.4% of Japan's energy depended on the oil, 99.7% of which was imported. People rushed to buy the oil-related goods in anticipation of price rise, and the WPI rose 37.2% while the CPI rose 24.9% over the year in February 1974.

This was the first big failure of monetary policy since the end of the war. The main reasons for such delay in policy change are two. First, politicians, government officials, businessmen, and journalists, all estimated enormous deflationary effects of the yen appreciation upon the economy judging from the bitter experience in 1930. But the second, more essential reason is the lack of the central bank independence. At that time, under the Bank of Japan Law which was made during the war in 1917, the government had the authority to direct the BOJ's monetary policy and to dismiss the Governor of the BOJ. Although the BOJ proposed the policy change to the government in autumn 1972, it was rejected until April 1973.

4. Learning Lessons from the Policy Failure and the Appearance of the "Stronger Country" Japan

In December 1974, Governor Teiichiro Morinaga and Deputy Governor (Governor form 1979) Haruo Mayekawa were nominated. They examined the process of the policy failure and the following three lessons were shared by members of the Executive Board.

First, it took too long for the BOJ to get the policy change permission from the government since it was not easy for BOJ officials to persuade government bureaucrats to share the same judgment as to the economic trend and appropriate policy. Second, although BOJ implemented the window guidance to hold down bank lending in 1972, it was not at all effective as far as interest rates in the market together with the official rate remained the same. Third, BOJ did not pay due attention to the enormous increase in the money supply as an intermediate target.

The three important changes in the implementation of BOJ's monetary policy had been carried out during 10 years, 1975-84, under Governor Morinaga and Mayekawa. First, they never left the negotiation of monetary policy changes with government administrators , but rather directly met the Prime Minister officially and unofficially to exchange views and share the same judgement as to monetary policy implementation. Governor Morinaga raised the official rate 0.75% or 1.00% three times, totally 2.75% during 8 months from April 1979 and Governor Mayekawa raised it 2.75% each in February and March 1980 to 9.00%, in order to prevent the imported cost push inflation resulting from the second oil crisis from causing the domestic inflation. The result was successful. Such smart changes in monetary policy were only possible when the Governor of the BOJ himself was always in touch with Prime Minister to share views.

Second, the policy implementation changed from the "Window Guidance" type to the "Market Operation" type under two Governors' leadership. As already stated in the last part of Chapter 2, developments in the various financial markets caused BOJ's market operation to be more effective with the various market players than window guidance only for BOJ's customer banks.

Third, the intermediate target changed from the increases in bank lendings of the customer banks, which is the object of the window guidance, to the outstanding money supply. In 1975, BOJ started to estimate the change in the state of money of the following quarter under the given policy implementation, and began to publish it from third quarter of 1978. It was not monetary targeting but "money focusing policy". During 10 years until 1984 when Governor Mayekawa retired, the change in the money supply over the year had a declining trend from 15% to 7% with small fluctuations, so that nominal GNP growth slowed from 20% to 7%, while real GNP had the stable trend of about 5%, and therefore the GNP deflation slowed from 5% to 0%. [Chart2]

In the world economy at that time, facing the collapse of the Bretton Woods system, the shift to the floating exchange rate system, and two oil crises, each country in "uncharted territory" was fighting against the "trilemma", namely current account deficit, inflation and recession. Japan was first concentrating on depressing inflation with "money focusing" policy, and the price stability resulted in current account surplus and business recovery. At the Economic Policy Committee of the OECD (which I often attended as a delegate from the BOJ), Japan, with West Germany and the U.S., was called "the stronger country". Leaving the exchange rate to the market, Japan concentrated on the sustained growth through price stability and achieved the highest growth rate among G5 countries in 1975-85.

II. Setbacks of the Japanese Economy

1. Emergence of Asset Bubbles

With such a favorable trend in Japan's economy, suddenly a difficult problem came from abroad. It was the Plaza Accord in September 1985. By participating in the so-called "International Policy Coordination," Japanese monetary policy was forced to change the policy goal from the "sustained growth through price stability" to "inducing the U.S. dollar depreciation" in the market. BOJ joined the "cooperative intervention" with European major countries to depreciate the dollar in the market, and limited decline in the interest rate to prevent the recession resulting from the sharp appreciation of the yen within a range in which the interest rate differential vis-à-vis the declining U.S. rate did not widen. (So-called "cooperative interest rate cut.")

Thus, the U.S. dollar had depreciated enough in February 1987, so that the Louvre Accord was concluded to stop further depreciation of the dollar which would be counter-productive to every country. As a result, the nature of the "cooperative interest rate cut" had changed. Although the Japanese economy was recovering from early 1987, BOJ had to cut the interest rate cooperatively to prevent the dollar from depreciating further. Internal and external policy goals became clearly contradictory.

Towards autumn 1987, BOJ and Deutsche Bundesbank had been leading the inter-bank money market rate to rise. The market had expected the official rate rise from its super low level towards

the end of the year, and the market's long-term rate had started to rise. All of a sudden on October 19, Monday, capital flight from the N.Y. markets occurred with a result of triple downward effect, namely the sharp price decline in U.S. bonds, stocks and currency. At the request from the U.S. for policy coordination, Japan was obliged to decrease, instead of increase, the official rate and had left the super low rate of 2.5% for 27 months until May 1989 although the economy had been recovering vigorously.

It is such binding of Japanese monetary policy by the so-called "International Policy Coordination" that caused asset bubbles. Recognizing such international political pressure, market participants believed the "Permanent Law Interest Rate" myths, and speculative rises in prices of real estate and stocks proceeded. Prices of goods and services, which had not risen so much by 1988, also started to soar when appreciation of the yen stopped in 1989. Confirming bottoming out of the dollar, the BOJ started to raise the official rate five times from 2.5% in May 1989 to 6.0% in August 1990. Facing such a radical change in financial circumstances, bubbles in stocks collapsed in early 1990, followed by bursting of the bubbles in real estate prices in 1991.

As a result of the collapse of asset bubbles, balance sheets of business firms and financial institutions deteriorated, with shrinking assets but remaining liabilities, so that they reduced their investment and lendings. The real growth rate declined from +6.0% in fiscal 1990 to +2.2% in fiscal 1991 +1.1% in fiscal 1992 and finally -1.0% in fiscal 1993.

This was the second big failure of post-war monetary policy.

2. Too Hasty Fiscal Consolidation Destroyed the Recovering Trend

The BOJ cut the official rate seven times from 6.00% in July 1991 to 1.75% in September 1993. Public investment expanded 30% in fiscal 1992-1993. The real growth rate recovered to +2.3% in fiscal 1994, +2.4% in fiscal 1995, and +3.7% in fiscal 1996 mainly led by recovery of private consumption and investment, and business profits also started to recover. [Table1] If this recovery led by the private sector had continued, the hangover from the bursting of the bubbles in the balance sheet would have been disposed of by the early 21st century.

However this scenario was broken down by the budget for fiscal 1997, which reduced the 13 trillion yen deficit resulting from the stimulative fiscal policy in fiscal 1992-93 and decline in tax receipts. As a Member of the House of Representatives, I told Prime Minister Hashimoto several times about the dangerous negative effect of such super balanced budget on the recovering economy, but he executed it. It seemed to me that he had not known how large the bad loans in the banking sector were. The serious financial crisis, including bankruptcies of large banks and security houses, occurred in November 1997 and continued to December 1998. In the process, the government committed two errors. First it had not offered fiscal support to ailing large financial institutions until they actually failed. This attitude caused much greater turmoil in the system. The new law to offer fiscal support to the ailing large institution to save the whole financial system, which I promoted as a Member of the House, became in effect in 1999. Second, the government applied the BIS regulation of equity

capital, which is for international large banks, to small domestic banks. Since the regulation is procyclical, it accelerated the recession through contracting loans.

The real growth rate declined to +0.5% in fiscal 1997, -1.0% in fiscal 1998, +0.9% in fiscal 1999, and -1.2% in fiscal 2001 after the IT bubble year's +3.1% in fiscal 2000. The average growth rate during five years was only +0.5%.

Too hasty fiscal consolidation, two government failures, and resultant low growth of five years caused a decline in the expected rate of future growth. Business firms felt that investment, employment and financial debt were too large as compared with the expected rate of future low growth, and they had been restricting those three. [Chart3] As a result, fixed investment was lower than the level of fiscal 1997 for 7 years until fiscal 2004, and bank lending continued to decrease until 2005 -- even by fiscal 2016, they did not return to the level of fiscal 1997.

This is the initiating mechanism of "the loss of 15 years" (1988-2012). During the process, the business sector changed from the deficit sector to the surplus sector and the stage for "liquidity trap" and "non-traditional" monetary policy in the 21st century had been prepared.

III. New Challenges of Monetary Policy

1. Revision of the BOJ Law and Improvement in Policy Formation

Decline in the expected rate of growth of business firms, which was caused by policy failure of the government, resulted in a decline in the actual rate of growth through decrease in business investment, employment, and borrowings. The average growth rate, which was 1.9% in fiscal 1991-96, declined to 0.6% in fiscal 1997-2002, and the CPI (excluding fresh food, core CPI) continued to decrease for 7 years from fiscal 1998 to fiscal 2004, a model of sustained true deflation.

The BOJ's new challenges began with "zero interest rate policy" in September 1998 in which BOJ reduced the call money rate (overnight) to 0.25%. In March 2001, facing "the liquidity trap", BOJ changed the operating target from the rate of interest to quantity of monetary aggregates, namely from 0.25% call money rate to 5 trillion yen commercial banks deposits with the BOJ, and decided to purchase long-term government bonds (JGBs) of 400 billion yen every month. Those targets were gradually increased and the amount of deposits with the BOJ reached 30-35 trillion yen, and that of government bond purchase to 1.2 trillion yen in January 2004. Further in October 2002, stocks held by banks became a target of BOJ purchase. BOJ declared that this "Quantitative Ease" (QE) policy would continue until the core CPI inflation rate had become stably positive (so-called "Time Axis" policy).

Those policies were the original model of the "QE" and "Time Axis" policies which were widely adopted by central banks of the U.S. and Europe after the Lehman Shocks in 2008. The BOJ was able to adopt such challenging "non-traditional" policies thanks to the revision of the BOJ law in April 1998. Prime Minister Hashimoto had learned that, behind the two big failures of the post-war monetary policy, there existed in the BOJ law legalized during World War II the authority of the

government to direct BOJ monetary policy and to dismiss the Governor. He took strong leadership in revising the law. Under the new law, the Governor, two Deputy Governors, and 6 members of the Monetary Policy Board are appointed not by the government administration but by the Diet, and the Government has only an authority to claim for postponing the vote in the Monetary Policy Board.

2. Transitory Exit from Deflation as well as Non-Traditional Policy

The first QE policy in the world, which started in Japan in 2001, resulted in an economic recovery with the average growth rate of 1.9% in fiscal 2003-07 and a positive core CPI inflation rate in fiscal year 2005-08. The main transmission channels of the policy were depreciation of the yen [Chart4] which caused a sharp increase in exports, a calming down of the financial turmoil and a decline in interest rates, which brought decreased bank lending to an end, and caused it to begin increasing in 2005. The enormous supply of monetary base might have contributed to stock price increases and yen depreciation to a certain extent, but there is no evidence it directly stimulated expenditures through the portfolio rebalance effect.

In March 2006, the BOJ suspended QE policy as the inflation rate in core CPI became positive, and the operating target was changed again from BOJ deposits to the call money interest rate. In July and February 2007, BOJ raised the call money rate twice, each 0.25%, and the operating target became 0.5-0.75%. In order to get rid of a rise in the long term rate, the amount of purchase of long term bonds (JGBs) was kept unchanged. The amount of bank deposits with the BOJ was reduced to the required reserve level by BOJ selling operation in the money markets.

The exit policy was successful. The market yield of the ten years government bond remained 1.5%. The real growth rate were +1.2~+2.1% in fiscal 2005~2007. The core CPI Inflation rate was +0.1~+1.2% in fiscal 2005-2008.

If the economy had gone further as it did, the period of deflation would have only been 1998-2004, and “the loss of 7 years” instead of “the loss of 15 years” would have been recorded.

3. International Financial Turmoil and World Wide Recession

Unfortunately, the third surprise attack from aboard in Japan’s post-war economic history, following the Smithsonian Accord in 1971 and the Plaza Accord in 1985, came in autumn 2008. It was the world-wide recession triggered by the financial turmoil in the U.S., the so-called “Lehman Shock”. Japan’s real growth rate fell to -3.5% in fiscal 2008 and -2.2% in fiscal 2009. The inflation rate of the core CPI also fell to -1.6% in fiscal 2009 and -0.8% in fiscal 2010. Further, an unlucky occurrence was the great earthquake in north-east Japan in March 2011. The low growth rate of +0.5% in fiscal 2011 and +0.9% in fiscal 2012 continued and the core CPI inflation rate was negative until fiscal 2012. Thus, they say today “the loss of 15 years” (1998-2012) instead of “7 years” (1998-2004).

The reason why the impact of the “Lehman Shock” on Japan was so deep, although Japan had no reactive financial turmoil in 2008, is mainly because the sharp appreciation of the yen together with worldwide recession caused a deep decrease in Japanese real exports -- as much as 20% in fiscal 2008-

09, followed domestically by a fall in real fixed investment of 19% over the same years. The effective real rate of the yen had appreciated 30% in 2008-2012 since international speculative capital moved from the U.S. and Europe, which suffered from financial turmoil, to Japan with no turmoil. [Chart4] The ratio of central bank assets to GDP rose sharply in the suffering U.S. and Europe from 2008 while in Japan, with no turmoil, it rose only gradually in 2009-2012. [Chart 5] This is another reason for the yen's sharp appreciation.

BOJ turned back to zero interest rate policy in 2008, and started to increase purchases of government bonds, stocks held by banks, and CPs towards 2009. In 2010 BOJ increased purchases of assets to 35 trillion yen, and gradually further to 101 trillion yen until 2012.

4. "Abenomics" and BOJ's "QQE"

In late 2012, Prime Minister Shinzo Abe's government started and launched the so-called "Abenomics", which consist of three policies: bold monetary ease, positive fiscal policy, and structural reform. In early 2013, the government concluded an accord with the BOJ that the core CPI inflation target should be 2% and BOJ must aim at the target through more vigorous monetary ease.

In April 2013, BOJ announced the so-called "Quantitative and Qualitative Ease" policies (QQE). They are: (a) the operating target was changed from the call money rate to the monetary base which would be increased twice in two years; (b) 50 trillion yen government bonds (JGBs) of all terms including 40 years would be purchased every year; (c) 1 trillion yen ETF and 3.4 billion yen REIT would be purchased every year; (d) QQE (a to c) would continue until the inflation rate stably remains over 2%.

In October 2014, QQE was further expanded and the government bonds purchase and the increase in monetary base were raised to 80 trillion yen a year.

First clear effects of QQE appeared in the exchange rate and stock markets. The expected and actual rise in the ratio of BOJ assets to GDP caused 28% depreciation of the yen per U. S. dollar in 2013-15. [Chart4] [Chart5] Stock prices in Tokyo market rose 80 % in 2013-15. Those effects had, however, ended by 2015 when people begun to recognize that the effects on business recovery and increase in inflation rate were not so large as expected. The average growth rate in fiscal 2013 through fiscal 2016 remained 1.1%, and the average inflation rate in core CPI was only 0.6%.

The reason for the limited effects of QQE on the real economy are mainly two. First, one of the Abenomics policies, the positive fiscal policy, has not been positive at all. Rather, it was stringent in 2014 when the consumption tax increase of 3% was executed in April. In fiscal 2014, a big decline in real private consumption of -2.7% caused the real GDP growth rate to drop to -0.5%. In addition, another policy of Abenomics, structural reform of the economy, has so far not been decided and executed in any practical manner so the potential growth rate still remains +0.5%~1.0%. [Chart3]

Monetary policy alone cannot be effective enough to arouse the long stagnant economy.

Second, QQE itself is not effective enough. There is no empirical evidence that the tremendous increase in the monetary base has stimulated the economy directly through "portfolio rebalance

effects". The transmission channel of QQE is observed mainly through the decline in real rate of short- and long-term interest rates. In January 2016, minus interest rate policy of -0.1% was implemented. However, it has to be limited because the further decline may undermine the profits of financial institutions. Besides, under the long trend of the low economic growth, private expenditures are not sensitive to an interest rate decline.

5. Exit Policy and the Final Goal

It was a clever judgment that BOJ has changed the operating target from monetary base to the interest rate in September 2016. In 2017, BOJ is targeting -0.1% call money rate and about 0.0% 10 year bond yield, and the yearly purchase of bonds seems to decrease from 80 trillion yen to about 60 trillion yen (de facto "Tapering").

Increase in bank lending and money supply over the year are gradually rising since the second half of fiscal 2016. Following the real growth rate of +1.2% in fiscal 2016, that for fiscal 2017 is estimated to reach +1.8% by members of BOJ Monetary Policy Board, which is substantially higher than the potential growth rate of less than +1.0%. The demand and supply gap of GDP has narrowed, and the unemployment rate is 2.8% in June 2017, nearly full employment.

The BOJ seems to aim at realizing 2% inflation target sometime during fiscal 2018~2019. However, judging from the history of Japan's economy since 1975 when the rapid growth was over, 2% inflation rate has appeared only at the time of inflation or asset bubbles. Now that Japan reaches almost full employment, the BOJ final policy goal from now on should be to sustain the economic growth with full employment. The 2% inflation target was adopted in 2013 to raise people's expected rate of inflation so as to decrease the real rate of interest to stimulate the economy and to realize full employment. But the final goal, full employment, is almost achieved. Now that the final goal is being achieved, achieving the intermediate target is meaningless. It is rather risky. In Japan's history, +1.0%~1.5% rises in core CPI is the state of price stability, and over +2% rise is a mild inflation. The mild inflation has the risk of undermining the sustained growth because it decreases the real income of workers, squeezes the business profits and distorts the income distribution and the resource allocation.

The important task for BOJ today is the exit policy from non-traditional monetary policy. In order to minimize the loss of BOJ at the time of interest rate rise, the assets held by the BOJ should be reduced gradually without stimulating the long term interest rate to rise sharply.

As for Abenomics, fiscal policy should not be stringent. Under sustained growth, the ratio of government debt to GDP will continue to decline as it does today. Concerning structural reform, a positive immigration policy is urgent to increase Japan's working population. Japan's real GDP growth per worker is the highest among G7 countries even in 2000~2010. [Chart6] The immigration will raise the potential growth rate, the natural rate of interest, and finally people's expected rate of real growth. This in turn will raise the elasticity of private expenditures to the interest rate, and Japan's monetary policy will become more effective

Figures

Chart1 Current Account Balance of Japan, West Germany, and the U.S. until the Collapse of the Bretton Woods System

Chart2 Money Stock, GNP (nominal and real), GNP Deflator Before and After Money Focusing Policy

Table1 Economic Recovery Led by Private Expenditures in 1990s

Chart3 Potential Growth Rate and Its Components

Chart4 Effective Real Exchange Rate

Chart5 Ratio of Central Bank Assets to GDP

Chart6 Effects of Aging Population on Economic Growth

Chart1 Current Account Balance of Japan, West Germany, and U.S. until the Collapse of the Bretton Woods System

（billion dollar）

8
6
4
2
0
-2
-4
-6
-8

Japan

U.S.

West Germany

61～65average 66 67 68 69 70 71 72

（calendar year）

[Note] Figure 5 of the original book

Chart2 Money stock, GNP (nominal and real), GNP deflator Before and After Money Focusing Policy

(% increase over the year)

(%)

M2+CD
(right)

nominal GNP
(left)

GNP deflator

real GNP
(left)

1956年 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85

(calendar year)

[Note] Figure 9 of the original book

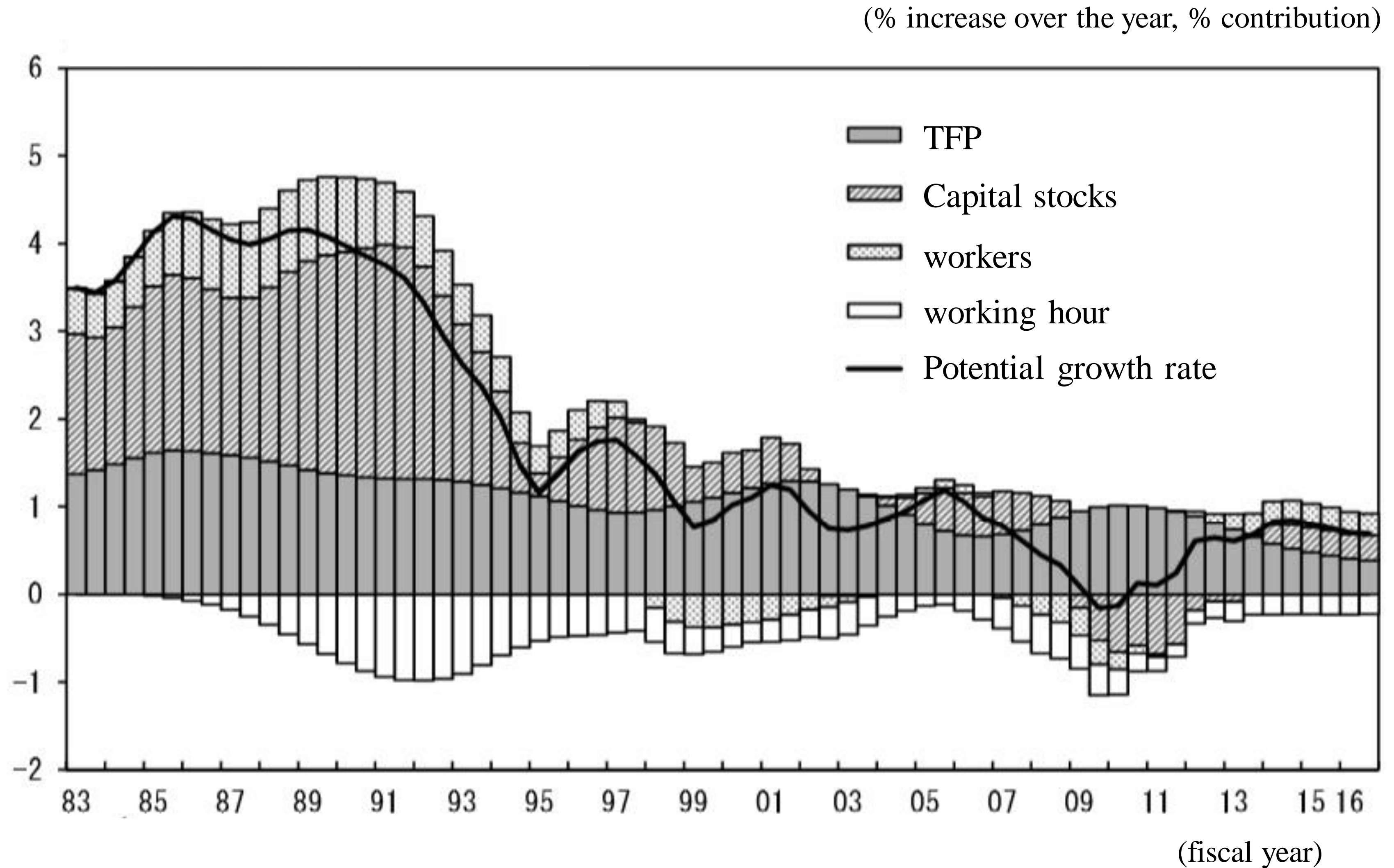
Table1 Economic Recovery Led by Private Expenditures in 1990s

(% increase over the year)

Fiscal Year	Bubble Recession		Recovery led by Private Sector			Policy Recession	
	92	93	94	95	96	97	98
GDP	1.1	−1.0	2.3	2.4	3.7	0.5	−1.0
Household Consumption	1.7	1.7	2.3	2.2	2.7	△0.8	0.4
Fixed Investment	△5.5	△14.0	△1.1	3.0	9.3	7.5	△5.2
Public investment	17.0	8.9	△1.9	7.9	△2.9	△6.0	2.0
Net Export	23.5	△4.6	△9.7	△33.9	△8.0	91.9	7.1

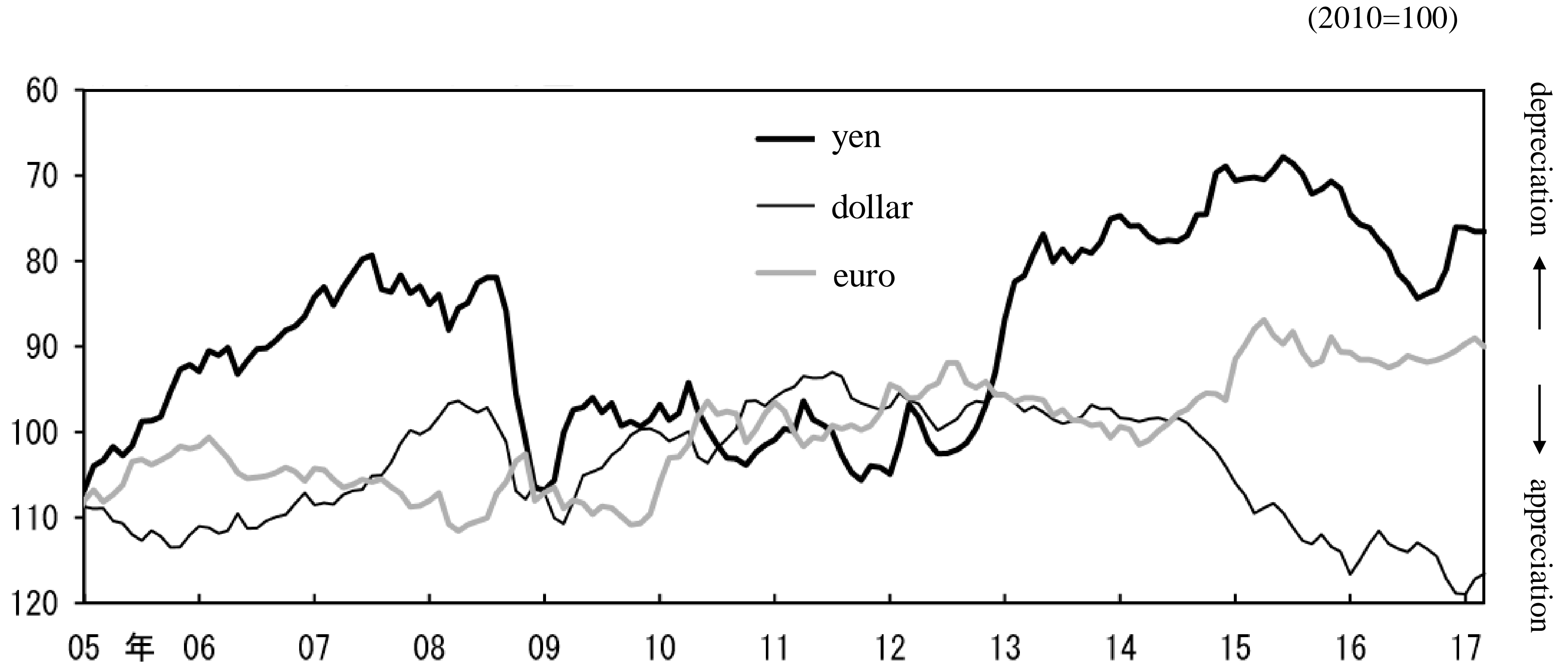
[Note] Figure 11 of the original book

◆ Chart3 Potential Growth Rate and Its Components



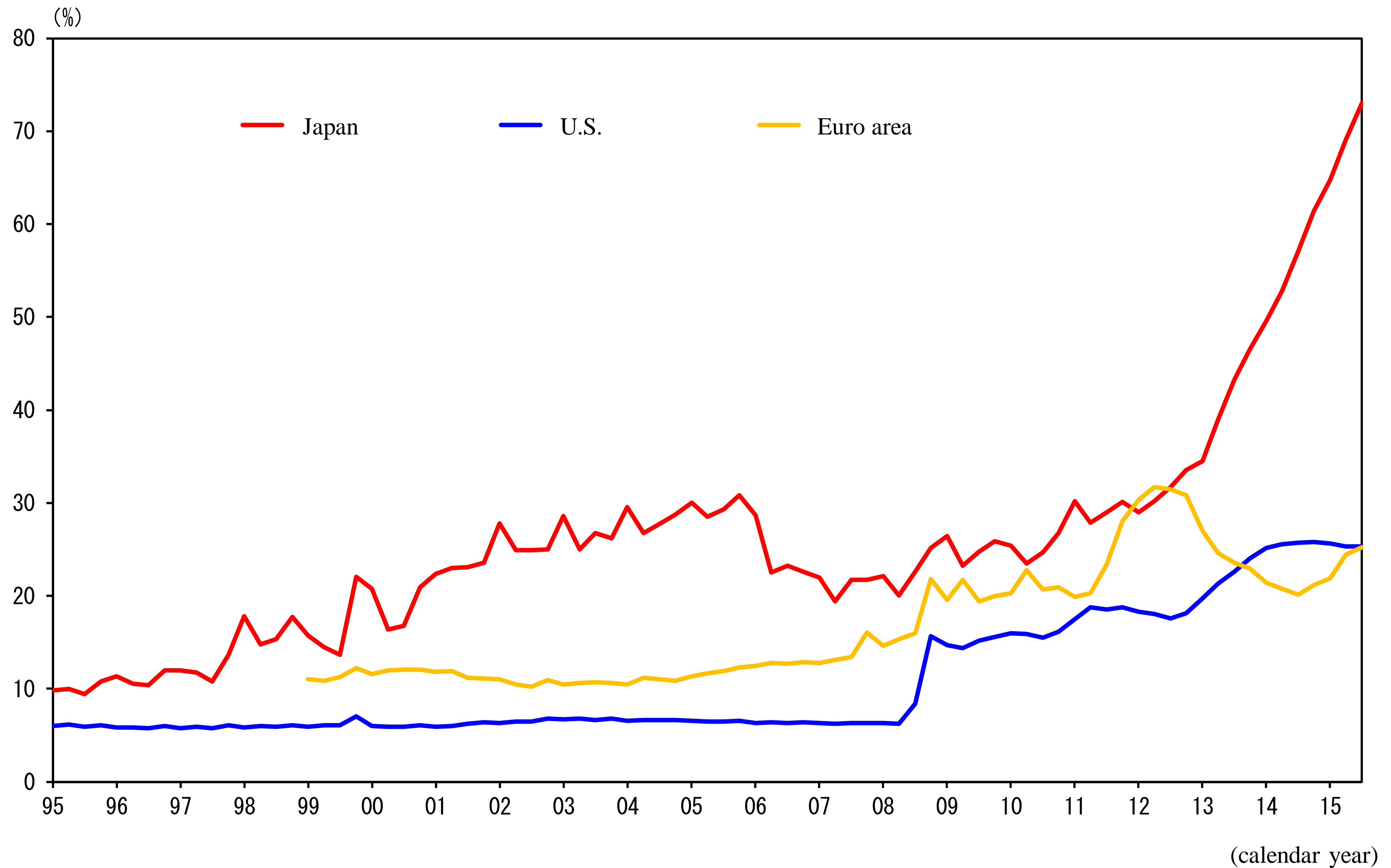
[Note] Figure 23 of the original book

◆Chart4 Effective Real Exchange Rate



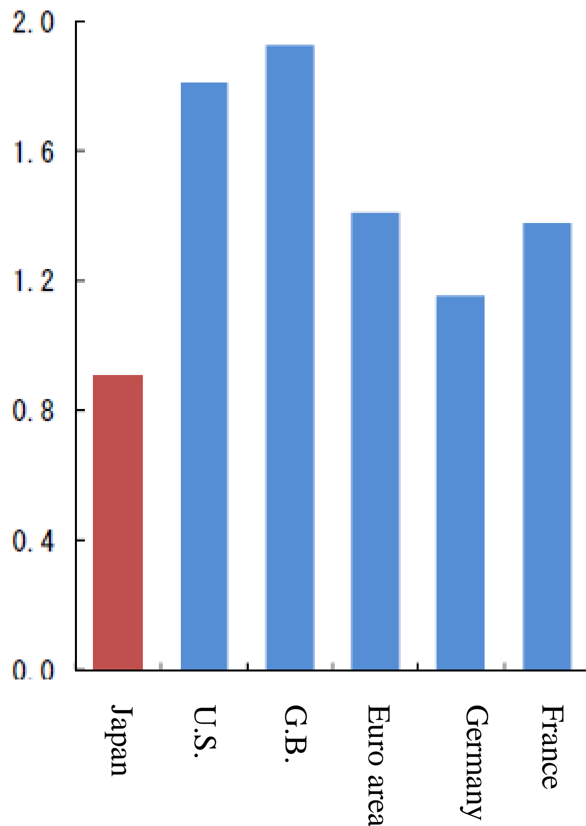
[Note] Figure 20 of the original book

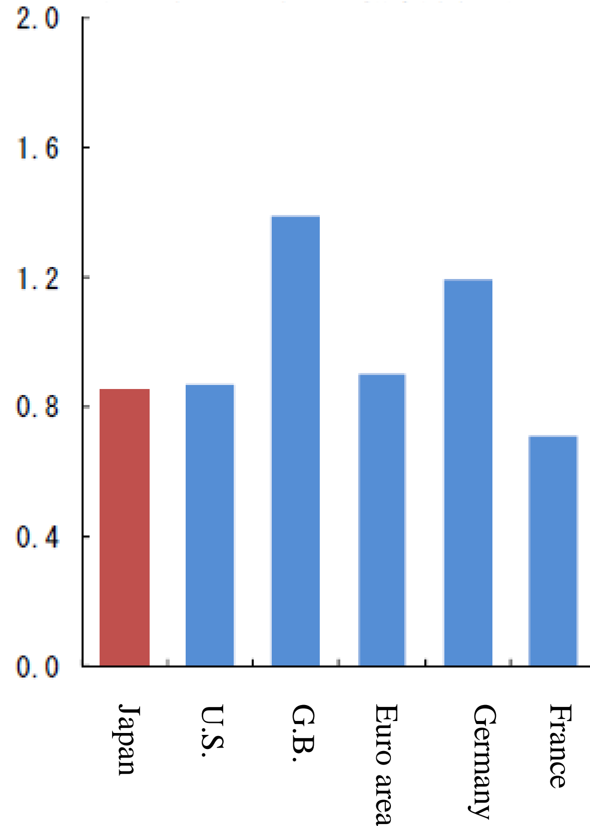
Chart5 Ratio of Central Bank Assets to GDP

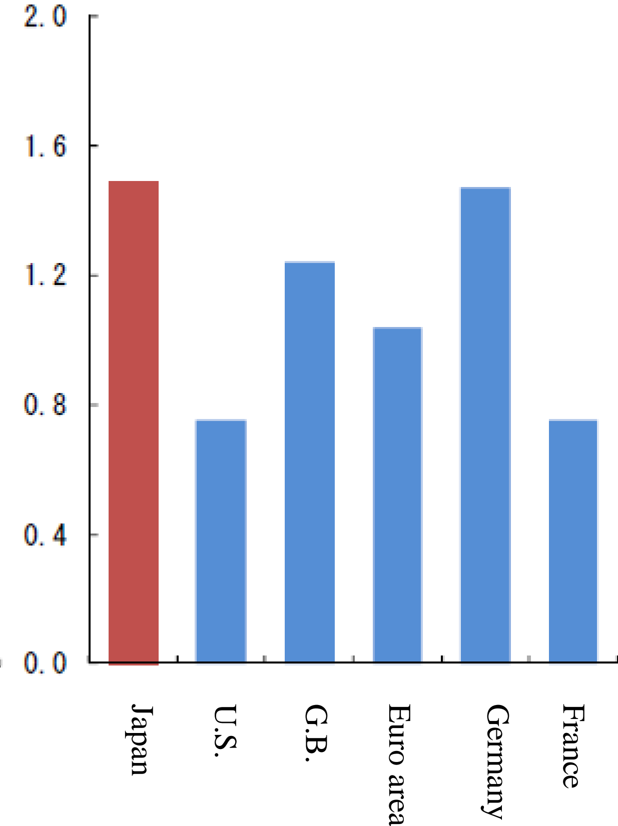


[Note] Figure 24 of the original book

Chart6 Effects of Aging Population on Economic Growth







[Note] Figure 30 of the original book