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Bank of Japan

Money, Government Securities and A Central Bank: Interdependency of Confidence

Speech at the 2011 Spring Meeting of

The Japan Society of Monetary Economics

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I. Introduction

I am honored to be invited today to the Japan Society of Monetary Economics. It is of great significance to have discussions among academics, practitioners and policymakers in any academic field, and it is certainly true in the field of monetary economics. As I have worked at a central bank for a long time, and also placed myself in a university for a while, I sincerely hope to deepen intellectual interaction among academics, practitioners and policymakers. Today, from a viewpoint of a policymaker and a practitioner, I will offer my thoughts with the title of "Money, Government Securities and A Central Bank."

Since the 2000s, the global credit bubble and the ensuing financial crisis have marked the most striking events in the global finance. The course of the events during the bubble and the ensuing crisis periods shed new light on the interdependency of the confidence in the government, the financial system and the central bank. During the bubble period preceding the crisis, implicit government guarantee by the Government-Sponsored Enterprises (GSEs) such as Fannie Mae and Freddie Mac was one of the causes of the residential bubble in the United States. During the crisis period after the failure of Lehman Brothers, decisive actions backed by the confidence in the government were required in order to end the crisis. The U.S. and European governments were forced to make large-scale capital injections and guarantees to financial institutions to restore confidence in private financial institutions and the stability of the financial system. The governments also employed aggressive fiscal policies as decisive macroeconomic measures to escape from sharp and deep economic contractions.

Even after the crisis, confidence in the government has remained an important issue. Since the mid-2009, the world economy has gradually recovered, thus preventing a deep depression, through a different path from the 1930s. However, confidence in sovereign debts has been eroded due to the deterioration in fiscal balance. At present, Greece and other European peripheral countries were hit most severely by the deterioration in fiscal balances and resulting sovereign debt problems. Those countries faced an adverse feedback loop among the sovereign risks, the financial system and the

real economy. Although Japan has not confronted such a rise in yields on government securities, the deterioration in fiscal balance is also severe.

The issue of confidence in a government has been relevant to a central bank. After the failure of Lehman Brothers, central banks in advanced countries, including Japan, took unconventional policy measures. Those measures were not pure monetary policies defined as liquidity provisioning. They included, more or less, quasi-fiscal policy elements. Debates are still going on regarding to what extent a central bank should pursue such monetary policy, namely, the relationship between a central bank and the government, or the relationship between monetary and fiscal policy.

Looking back on those series of events, I hope you understand why I choose the topic of money, government securities and a central bank.

II. Interdependency of Confidence

Money and Government Securities

I will start by talking about two financial assets, money and government securities (Slide 1). Money plays an important role as a means of payment, a unit of account and a store of value. The primary form of money is central bank money which consists of banknotes issued by a central bank and deposits in central bank current accounts. In Japan, the balance of central bank money is 122 trillion yen in March 2011. In addition, bank deposits, which are easily convertible to central bank money, also function as money. The outstanding balance of bank deposits is 1,024 trillion yen.

The outstanding balance of Japanese government securities is 865 trillion yen. A government uses the securities as a means of funding; a central bank uses them as the instrument of monetary control; and investors including private financial institutions use them as one of the primary financial assets for investment. Since government securities are, in many cases, regarded as risk-free assets whose credit risks are negligible, yields on government securities are often used as benchmark rates for pricing various financial instruments.

Both of money and government securities are merely pieces of paper which represent the liability of issuers, i.e., a central bank, private banks and a government. The debtor of central bank money is a central bank, the debtors of bank deposits are private banks, and the debtor of government securities is a government. Although those financial assets do not have intrinsic value as materials in themselves, they are regarded as valuable assets and fulfill their functions. That is ultimately because holders of money or government securities have confidence in the issuers of those debts.

The importance of confidence is not a new topic; most textbooks on monetary economics emphasize its importance. Governments, central banks and private banks make their best efforts to maintain the confidence. Governments make their efforts to maintain the medium- to long-term fiscal balances. Central banks maintain the stability in prices and the financial systems through the conduct of monetary policy, through actions as the lender of last resort, through financial supervision, and others. Private banks maintain their capital base, manage various risks, and provide credit intermediation and payment services.

My point here today is the interdependency of confidence. Confidence in each issuer is supported not only by the issuer's own efforts but also by the fact that confidence in other issuers is maintained and that members in society understand the importance of confidence in each other. Now, I will elaborate on the interdependency of confidence.

Determination by the Government to Underpin Confidence in Private Financial Institutions

First, confidence in bank deposits of private banks, or in debts of financial institutions, is significantly affected by confidence in governments as well. The global financial crisis after the failure of Lehman Brothers demonstrated that. After the failure, financial institutions lost confidence in each other's creditworthiness, and the interbank money markets almost stopped working. Under the circumstances, central banks acted as the lender of last resort and aggressively provided funds in order to deal with the liquidity shortage of financial institutions. Although the provision of liquidity by

central banks was extremely important during the crisis after the failure of Lehman Brothers, it alone was not enough to restore the stability of the financial system. That was because the adverse feedback loop between the financial system and the real economy eroded capital positions of financial institutions and thereby confidence in their solvency significantly. As the central issue shifted from the liquidity shortage problem to the capital shortage problem, governments were required to inject public capital and to guarantee senior debts of the financial institutions in order to restore confidence in private financial institutions. The amount of public capital injected by the governments of the United States, United Kingdom, Germany and France during the recent global financial crisis reached an equivalent of 84 trillion yen.[1] The experience above suggests that the stability of money and the financial system also depends on confidence in governments.

Support by the Public to Underpin Confidence in A Government

Second, having talked about the importance of confidence in a government, I would like to emphasize that confidence in a government is, in the end, underpinned by support by the public. After the global financial crisis, fiscal conditions in many countries deteriorated seriously as a result of decreases in fiscal revenues associated with the downturns in economic conditions, aggressive fiscal policy and capital injections to financial institutions. The International Monetary Fund (IMF) reported that fiscal deficits of advanced economies in G20 countries were 1.7 percent of GDP in 2007. The deficit rose to 9.4 percent in 2009 and are projected to be as high as 8.0 percent in 2011 (Slide 2). The report notes that about an half of the increase in outstanding public debts in G20 advanced economies is due to the decrease in fiscal revenues, while nearly 20 percent of the increase is due to fiscal stimulus measures and the authorities' support to financial institutions.[2]

When fiscal conditions deteriorate, confidence in a government's ability to repay its debts declines. As I mentioned earlier, confidence in private financial institutions is

[1] The figure is the total amount of public capital injections until March 2010 in the United States, United Kingdom, Germany and France. For details, see Bank of Japan, "Financial System Report" (March 2010).

[2] See IMF, "Fiscal Monitor" (May 2010).

affected by confidence in a government as well. Therefore, when confidence in a government is undermined, confidence in private financial institutions is affected through various channels. The channels include a decline in the value of government securities they hold, erosion of their ability of funding due to the depreciation of values of collateral among others. Real economic activity suffers from rises in funding rates and difficulties in obtaining liquidity. As a result, tax revenue declines and confidence in a government's ability to repay their debts is weakened. In other words, an adverse feedback loop emerges among sovereign risk, the financial system and real economic activities. Although the cause of sovereign debt problems in European peripheral countries varies from country to country, the common nature of the problem is such adverse feedback loop.

When private financial institutions faced the financial crisis, governments succeeded in stabilizing the economy and the financial system by injecting public capital and conducting countercyclical fiscal policy. A prerequisite for such success is that a government is perceived to secure future revenue to cover the current expenditure. If a government is perceived as lacking sufficient future revenue to cover increased expenditure due to public capital injection or expansionary fiscal policy, the effect of the policy measures may lessen, or even worse, could be adverse. The key to success of various aggressive policy measures in an emergency is confidence in the government's ability to maintain the sustainability of medium- to long-term fiscal balance. Various aggressive policies by a government in a crisis become effective only when a government has a "stock" of confidence in it. And the substance of the stock is, in the end, support by the public to maintain the sustainability of fiscal balance. A government is not able to pursue fiscal policy at will regardless of support by the public in such a way as to wave a magic wand.

Determination by the Government and Support by the Public to Underpin Confidence in A Central Bank

Third, I would like to emphasize that confidence in a central bank is not maintained solely by the efforts of a central bank. Support and understanding by the government and the public about the importance of confidence in a central bank are also essential.

Since the recent global financial crisis, central banks around the world have conducted unconventional monetary policies on a large scale.[3] There is no universally-accepted definition of "unconventional monetary policy," as "convention" varies from country to country. In the case of the Bank of England, unconventional monetary policy means a large-scale purchase of long-term government bonds under the Asset Purchase Programme. By contrast, the Bank of Japan has been conducting the purchase of long-term government bonds for nearly fifty years. In that respect, purchasing long-term government bonds is one of the "conventional monetary policy" measures. An unconventional monetary policy measure for the Bank of Japan after the Lehman shock is the purchase of corporate bonds, commercial papers (CPs), exchange-traded funds (ETFs), real estate investment trusts (REITs), etc. In the case of the Fed, the typical unconventional monetary policy measure is the purchase of CPs and mortgage-backed securities.

As I mentioned above, central banks acted decisively to maintain the stability of the financial system in the wake of the recent financial crisis. In such a situation, confidence in a central bank is a prerequisite for a central bank to take those decisive actions. I will explain this point by taking the expansion of a central bank's balance sheet as an example. When financial systems become unstable, demand for liquidity increases. Opportunity costs of holding central bank money could be negligible because of extremely low short-term interest rates. Under such condition, an increase in central bank money does not necessarily lead to a price hike. As a matter of fact, even though balances in central bank current accounts and the monetary base increased markedly in Japan and the United States in recent years, inflation rates in both countries did not rise (Slide 3). However, it is crucial for a central bank to have the capacity to take necessary action promptly when an increase in interest rates is required due to changes in economic conditions. If market participants and the public perceive that the central bank is unable to take prompt action "for some reasons" when needed, rampant inflation may follow because the amount of money is extremely large.

[3] As for unconventional monetary policies taken by central banks after the failure of Lehman Brothers, see Monetary Affairs Department, Bank of Japan, "Major Central Banks' Policy Operations in the Current Financial Crisis," (July 2009, in Japanese).

"Some reasons" include these. One would oppose an increase in interest rates on the grounds of concern about capital losses of government securities held by private financial institutions or concern about an increase in interest payments on government securities. Although those arguments do exist at any time, the arguments tend to be heated more when the outstanding balance of government securities is larger and the period of low interest rates continues longer.

Confidence in a central bank is formed in a complicated manner, and each country designs institutional arrangements deliberately and each central bank acts carefully when conducting their policies in order to maintain the confidence. I will come back to this point in more detail later.

III. Issues Related to Fiscal Balance

Having talked about the interdependency of confidence, let me discuss the importance of confidence in light of Japan's current fiscal condition.

Japan's current fiscal condition is very severe (Slide 4). The outstanding amount of gross financial liabilities of the government is as high as 198 percent of GDP. As the Japanese government, unlike other major countries' governments, has a large amount of financial assets, some observers argue that net liabilities rather than gross liabilities may be a more adequate indicator for true indebtedness of the Japanese government. In terms of net financial liabilities of the government, Japan is still ranked as the worst among developed countries with its ratio of 114 percent, higher than that of Italy, which is 103 percent. In any event, so far Japan has experienced no currency crisis or financial crises triggered by the deterioration in fiscal balances that occurred in some other countries.

Though the necessity of the sustainability of fiscal balance is generally well recognized in Japan, arguments which raise the alarm on risks associated with the deterioration in fiscal balance are sometimes regarded as crying wolf. That is because Japanese government securities have been issued smoothly for years and yields on long-term

Japanese Government Bonds (JGBs) have been stable at low levels in spite of the deteriorated fiscal balance.

No country can perpetuate fiscal deficit. Confidence in a government's ability to repay its debts can change in a non-linear fashion. The European sovereign debt problem that started in Greece is a case in point. In the fall of 2009, widening spreads of government securities of the European peripheral countries against Germany became evident (Slide 5). In October 2009, spreads were below 2 percent, but suddenly widened dramatically and now remains at high levels currently such as 13.4 percent for Greece, 8.0 percent for Ireland and 6.6 percent for Portugal. Though macroeconomic conditions have not changed drastically since the fall of 2009 in those countries, market participants' perception has changed substantially.

Yields on JGBs have been stable at a low level of 1.15 percent on average in fiscal 2010 (Slide 6). One of the most frequent questions I have got at international meetings is why yields on JGBs have been stable at low levels despite the very severe fiscal condition. According to the economic theory, a quick answer is the expectations for a low growth rate and a low inflation rate. If we compare the past 10-years' average nominal growth rates, which are the sum of Japan's real GDP growth and inflation rate, with 10-year JGB yields, we will witness both have followed similar paths generally albeit with a small deviation (Slide 6). The low and stable JGB yields are explicable if many investors expect what prevailed in the past 10 years will continue into the next 10 years. However, the low growth and inflation rates are not sufficient to explain low yields on JGBs. Long-term interest rates are determined not only by the expected growth rate and the expected inflation rate, but also by the risk premium that compensates for their uncertainties. Thus, to fully explain the low yields on JGBs, we have to discuss why the risk premium is low. In that regard, I have to point to the following two.

First, market participants believe that Japan ultimately has a will and an ability to work on fiscal consolidation despite a severe fiscal condition. Second, confidence is maintained in the Bank of Japan's conduct of monetary policy focused on achieving

sustainable economic growth with price stability. To put it differently, if confidence in those two points were to be undermined, the rise in risk premium would raise the yield on JGBs. That clearly underscores the responsibilities of the government and the parliament that formulate fiscal policy and those of the central bank that conducts monetary policy. As I mentioned earlier that confidence in one entity is underpinned by confidence in other entities, it is crucial for all the entities to recognize the importance of confidence in other entities. Ultimately, confidence in money and government securities is underpinned by the determination of people who recognize the importance of confidence. And, such support by the public is able to exist only with a comprehensive account by the government and the central bank, and with people's understanding of the situation based on the account.

The future is always full of uncertainties, and I see that there are two tendencies on how market participants and the public form expectations for a long-term future. First, they may tend to think that what has continued over a long period will stay as it is. In the context of the current Japanese economy, they may think that yields on long-term government bonds will continue to be stable at a low level in the future as the yields were for a long time. Second, once a change begins to occur with a trigger, this change reminds them of big events in the past and they may think that drastic changes will occur. Market participants and the public may drastically change their expectations triggered by an increase in fiscal deficit or an event which make market participants and the public think that the independence of the Bank of Japan is not respected. Then, they may expect that rampant inflation will occur in the end. Having mentioned those two contradictory tendencies, I have to add that it is quite difficult to predict when the former tendency will be replaced by the latter. What is certain is that expectations change in a non-linear fashion. That is why the principles of the authorities' behavior have to be clear.

It is vital for the fiscal authorities to work on the sustainability of fiscal balance in the midium- to long-run. The deterioration in fiscal balance lowers the increase in the expected future income by households, especially for the working-age population, and thus reduces current household expenditure. To make things worse, if confidence in

fiscal sustainability is eroded, an adverse feedback loop among fiscal balance, the financial system and the real economy may exert a negative impact on economic activity, as shown in the sovereign debt problem in the European peripheral countries.

IV. Role of A Central Bank and Government Securities

Use of Government Securities in the Money Market Operations

Principles of a central bank's behavior must be clear as well as those of the fiscal authorities. Let me now discuss the principles of a central bank's behavior in association with government securities.

First, let me show you some facts on the relationship between the Bank of Japan and the JGB market. The Bank of Japan uses JGBs to conduct money market operations (Slide 7). During a one-year period up to April this year, central bank money increased by 20.7 trillion yen on the liability side of the Bank of Japan's balance sheet. Correspondingly, JGBs increased by 8.2 trillion yen on the asset side as a result of the outright purchases of JGBs. To deal with short-term fluctuations in financial institutions' demand for reserves, the Bank conducts funds-supplying operations against pooled collateral. The operations are that the Bank extends loans to financial institutions against pooled collateral which they submitted beforehand. During a one-year period up to April this year, those loans increased by 20.1 trillion yen and JGBs account for 80 percent of the collateral. It is an example of how JGBs play an important role in the Bank's money market operations.[4] Apparently, the Bank is the most proactive among the central banks of major countries in using government securities in the money market operations.

This way, the Bank of Japan uses JGBs on a large scale in conducting money market operations. In that context, I would like to stress that the goal of the central bank's outright purchases of JGBs is to satisfy demand for secular growth in currency and to conduct monetary policy, but not to finance government debt or to stabilize yields of

[4] For the details of the Bank's use of JGBs in the conduct of money market operations, see Financial Markets Department, Bank of Japan, "Money Market Operations in Fiscal 2010." (May 2011).

long-term government bonds. If market participants were to regard the central bank's outright purchases of JGBs as a means of government financing or of stabilization of long-term JGB yields, the resultant hike in risk premium would raise yields on long-term government bonds. If the rise in the yields on long-term government bonds reflects improvements in economic conditions, the rise in the yields is natural and desirable. However, if the rise in the yields on long-term government bonds reflects the rise in risk premium, it exerts a negative impact on the real economy and the financial strength of financial institutions.

The Bank has made the principle on the outright purchases of JGBs very clear. This principle, called "banknote principle," has been working to prevent uncertainties of the Bank's actions from raising a risk premium and thus from exerting a negative impact on the economy and finance. More specifically, the Bank keeps the total amount of its holding of government bonds below the outstanding amount of banknotes in circulation.

Some criticize the Bank for establishing such a principle. However, if a central bank that holds such a large amount of government bonds were to purchase government bonds without making its fundamental principle of the purchases clear, increased uncertainties would create a risk premium and lead to a rise in yields on long-term government bonds. In addition to the ceiling of the total holding of government bonds, the Bank also makes public the amount of purchases in specific maturity segments as well as the frequency of the purchases in advance (Slide 8).

In 2009, the Bank increased the amount of Bank's outright purchases of JGBs to 1.8 trillion yen per month, that is, 21.6 trillion yen per year. Since then, the Bank has been keeping the ceiling. The average duration of the JGBs purchased by the Bank was about 4 years in 2010. If the Bank purchases JGBs at the current pace, it will lead the Bank to hold 82 trillion yen of JGBs, the amount calculated by multiplying the amount purchased per year by an average duration. The current outstanding amount of banknotes is around 81 trillion yen. At present, the outstanding amount of JGBs held by the Bank is 60 trillion yen and less than that of banknotes. However, if the Bank continues to purchase JGBs at this pace, the outstanding amount of JGBs will reach that

of banknotes. The outstanding amount of banknotes in the future cannot be predicted with certainty because it depends on the income, the interest rate and the degree of stability of the financial system in the future. The Bank thinks it desirable for economic and financial stability that the Bank continues to purchase JGBs at a stable pace, based upon the best possible forecast of those economic developments.

Underwriting of Government Securities by the Bank of Japan

Now, I will talk about the idea of the underwriting of government securities by the Bank, which is occasionally advocated as a way for funding new government spending.

In many countries, laws do not allow the central bank to directly underwrite government securities. In Europe, the underwriting is prohibited by law explicitly. In many other countries around the world, including emerging economies, it is not allowed, either. In Japan, Article 5 of Public Finance Act prohibits the Bank from underwriting government securities.

The principle on prohibiting the central bank from underwriting government securities has been derived from historical lessons. History shows that once the underwriting by the central bank was introduced, it often led to an excess issuance of money and hence rampant inflation, even if it seemed to be under control at an initial phase. The excess issuance of money and resultant inflation destroy people's lives and the national economy.

Based upon this conventional wisdom, the introduction of the Bank's underwriting of government securities would damage confidence in money. The damage would lead to higher long-term interest rates and instability in the financial market. Then, the government might not be able to issue its debts in the primary market.

The current condition in the auction of Japanese government securities remains stable even after the recent Great East Japan Earthquake. Still, taking account of the deteriorated fiscal condition in Japan, it is of utmost importance to maintain the current stable condition in the primary government securities market.

Confidence in money and the well-developed government securities markets are parts of the social infrastructure for the Japanese economy. Now, it is even more important to maintain confidence in money and government securities on both international and domestic grounds, given the severe fiscal condition and damage of the recent earthquake on the Japanese economy.

Let me add a few words about the Bank's bitter experience in oft-quoted underwriting of government bonds in the early 1930s when the veteran Finance Minister Korekiyo Takahashi initiated it. Though some commentators refer to this episode at times in their favor, they do not necessarily recognize a big difference between financial and economic conditions at that time and those at present (Slide 9).

First, conditions in the financial market were tight on the eve of the Bank's underwriting of government bonds in the early 1930s. The overnight call rate was 6.6 percent in December 1931, compared with the current level of 0.07 percent. The long-term interest rate was 5.9 percent in December 1931, compared with the current level of 1.14 percent.

Second, fiscal conditions were much better in the early 1930s than in 2011. The outstanding amount of government securities was 47.6 percent of GNP at the end of December 1931, compared with 181.9 percent of GDP at the end of March 2011.

Third, the Bank's underwriting of government bonds in the early 1930s was associated with tighter capital controls in the early 1930s. By contrast, the financial market and other economic activities are much more globalized now. Under those circumstances, the misconduct of monetary and fiscal policy, which leads to a deterioration in confidence in money, would affect long-term interest rates immediately.

Fourth, the relative size of a domestic financial market was smaller in the early 1930s than today, and the government securities markets were less developed. In the 1920s and in the early 1930s, the government issued its securities mainly through a syndicate

of private financial institutions or through the Deposit Bureau of the Ministry of Finance. A large part of the fund of the Deposit Bureau came from postal savings. Under such condition, the government lacked effective measures to issue a large amount of its securities promptly and smoothly.

During the first several years of Mr. Takahashi in office, the Bank was able to sell most of the underwritten government bonds in the secondary market promptly. The amount of the Bank's holding of government securities did not grow significantly, hence the monetary base did not, either.

By contrast, we now have well-developed primary government securities markets. Even after the recent earthquake, the government is able to issue its securities in the market smoothly, and the bid-to-cover ratios in the primary markets remain unchanged.

Although some commentators mention a sharp depreciation of the Japanese exchange rate in the early 1930s, the exchange rate regime at that time was quite different. After the departure from the gold standard at the end of 1931, the yen depreciated from an overvalued level under the gold standard. By contrast, Japan is on the flexible exchange rate system today.

As many of you know, Mr. Takahashi was assassinated in 1936 by militarists when he was trying to stop ever-growing demand for military spending, and the course of events led to the eventual rampant inflation. I would argue that the introduction of the scheme of the Bank's underwriting of government securities itself paved the way for eventual ballooning of fiscal spending, precisely because the scheme lacked the checking process through the market mechanism.

We often use the words of 'entrance' and 'exit' to discuss the conduct of monetary policy nowadays. In that terminology, we should interpret that the 'entrance' of the introduction of the Bank's underwriting of government bonds in the early 1930s led to the 'exit' of the failure in containing growing demand for fiscal expenditure.

In retrospect, we should note that the Bank's underwriting of government bonds started as a "temporary measure."[5] Though Mr. Takahashi stated that he issued government bonds by a means of the Bank's underwriting just temporarily in his address at a Diet session,[6] history told us that it was not temporary.

Today, central banks are not allowed to underwrite government securities in emerging economies as well as developed countries. Underwriting government securities by central banks may eventually lead to an excess issuance of money and rampant inflation, devastating people's lives and economic activity, even though it may appear no problem at the beginning. Humans are prone to temptations, but at the same time, humans are aware of that and take a preventive measure by prohibiting central banks' underwriting of government securities.

We are not able to improve fiscal balance simply by creating inflation (Slide 10). Inflation may cause an increase in tax revenue, but as the data for the last twenty years in Japan shows, changes in fiscal revenue show no significant correlation with inflation. Rather, fiscal revenue increased as the economy grew in real terms. Expenditures such as social security and public works increase with inflation. Interest payments on the government debts also increase with inflation, since long-term interest rates also go up, reflecting inflation.

In the interest of time, I do not get into more detail on fiscal issues. What is clear is that we need to review the overall structure of revenues and expenditures in order to improve fiscal balance. Also, higher economic growth is needed to improve fiscal balance. Here, we have to bear in mind that it is growth in real terms rather than in nominal terms that matters. It should be noted that the view that higher nominal growth is needed for the improvement in the fiscal balance is misleading. That view gives a false impression that economic growth in real terms and inflation would exert the same impact on fiscal balance. The truth is that inflation per se does not improve

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[5] Fukai, Eigo, *Reflections on Seventy Years*, 1941 (in Japanese).

[6] "The Address on the Government Debt Policy in Fiscal 1933 Budget," January 21, 1933, Plenary Meeting, the 64th Diet, Ministry of Finance, *Financial History of the Showa Era*, vol.6 (1954, in Japanese).

fiscal balance. The crucial element for improving fiscal balance is steady efforts toward higher economic growth in real terms. When higher economic growth is achieved, prices may rise as a result.

V. Concluding Remarks

Now, it is time to conclude my speech. Let me first emphasize that money and the financial systems are essential for sustained economic growth, and that confidence in them is the most important foundation for money and the financial system to perform their roles.

The starting point is obviously the efforts to maintain the confidence by the government, the central bank and private financial institutions, respectively. The government has to maintain fiscal balance in the medium- to long-run. The central bank has to maintain stability in prices and the financial system through the conduct of monetary policy and the lender-of-last-resort function. Private financial institutions have to provide payment and settlement services and the credit intermediation function properly.

Those individual efforts are important, but they alone are not sufficient to achieve stability in money and the financial system. Confidence in private financial institutions depends on confidence in the government as well. To maintain confidence in the government, achieving the medium- to long-term fiscal balance is an important precondition. Support by the public is also essential in achieving the fiscal balance. Confidence in government securities is underpinned by confidence in the central bank. Confidence in the central bank may be enhanced if the government and people respect the central bank's judgments, and it may be eroded if not. In other words, confidence in money and the financial system are interdependent on each other.

Confidence is something like the air; nobody doubts about its existence at normal times. Confidence may wane in a discontinuous manner unless we make utmost efforts to maintain it. Once confidence is lost, the impact on the economy is enormous. Confidence is fragile.

I have started this talk by mentioning the importance of dialogues among academics, practitioners and policymakers. Let me conclude by sincerely hoping that we, members of the Japan Society of Monetary Economics and the Bank of Japan, can cooperate further to promote understanding in society about the importance of maintaining confidence in money and the financial system.

Thank you.

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Today's Topics

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Money and Government Securities

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Support by the Public to Underpin Confidence in A Government

Determination by the Government and Support by the Public to Underpin Confidence in A Central Bank

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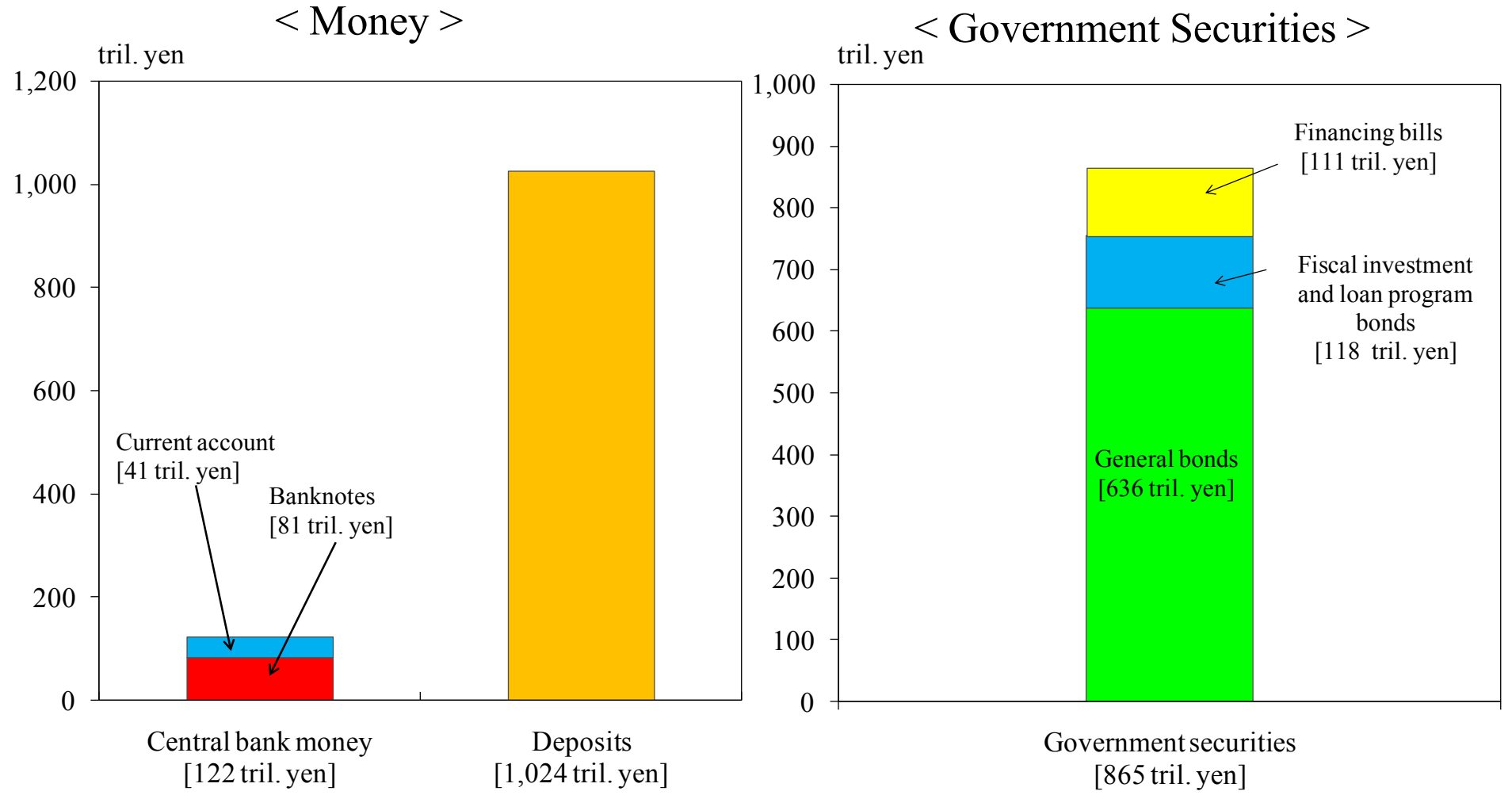
Money and Government Securities



Note: The figures are as of end-March 2011. Deposits include deposits of depositary institutions. Government securities include general bonds, fiscal investment and loan program bonds and financing bills.

Sources: Ministry of Finance, *Central Government Debt*; Bank of Japan.

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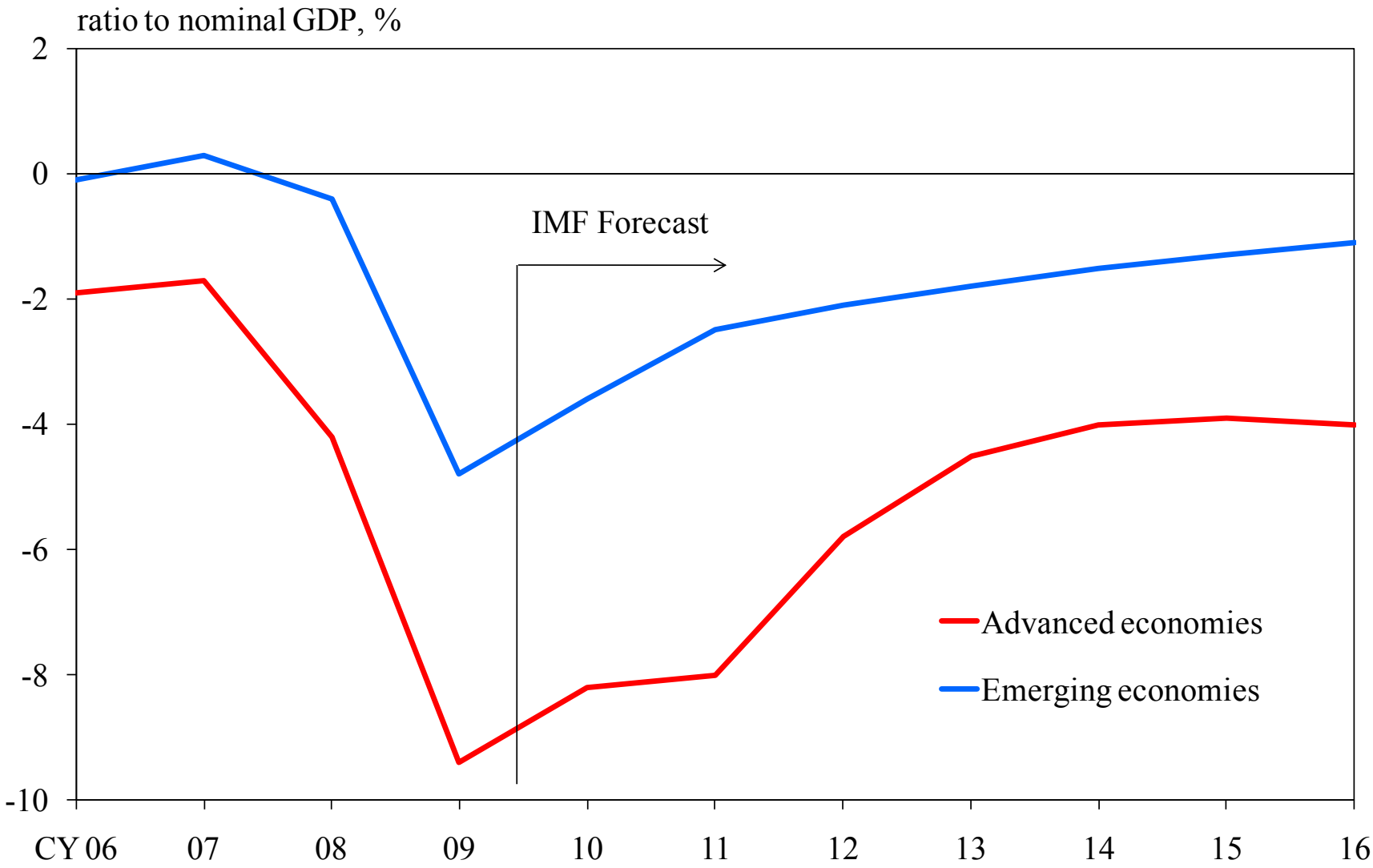
Fiscal Balance of General Government



Notes: 1. The general government includes central governments, local governments and social security funds.
2. Advanced economies include Japan, the United States, France, Germany, Italy, United Kingdom, Canada, Australia and Korea, and emerging economies include the remaining G20 countries.

Source: IMF.

Monetary Base and Consumer Price

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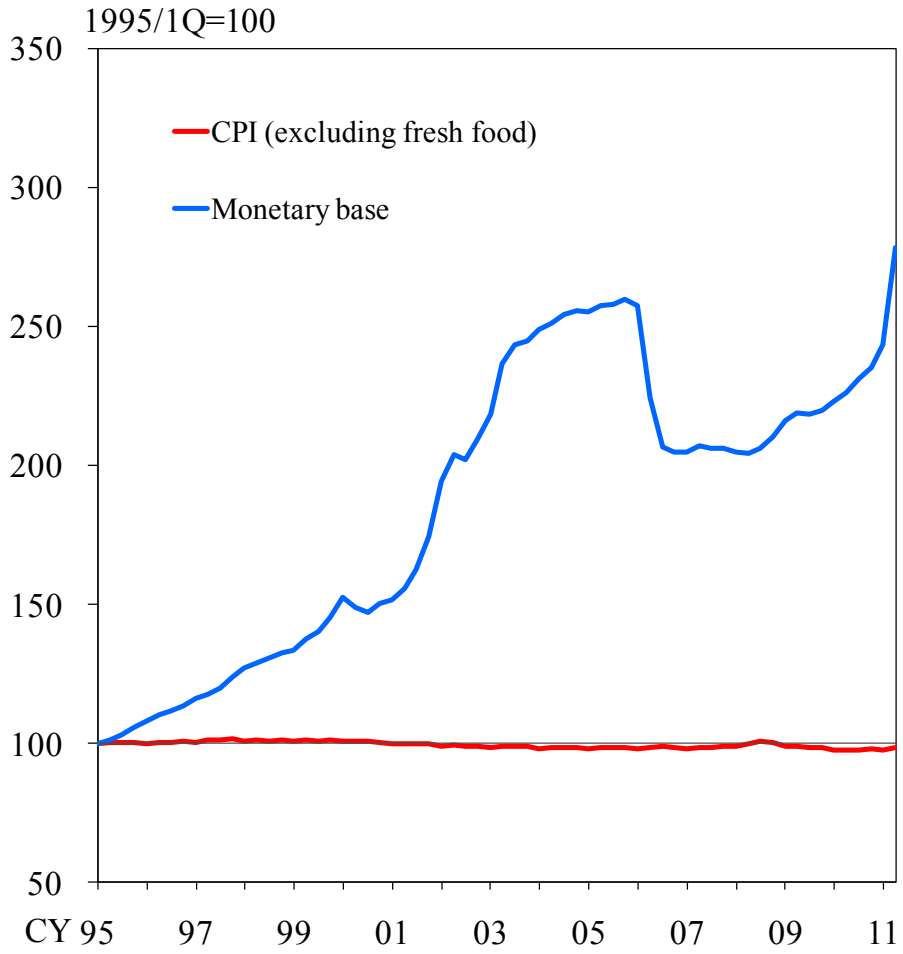

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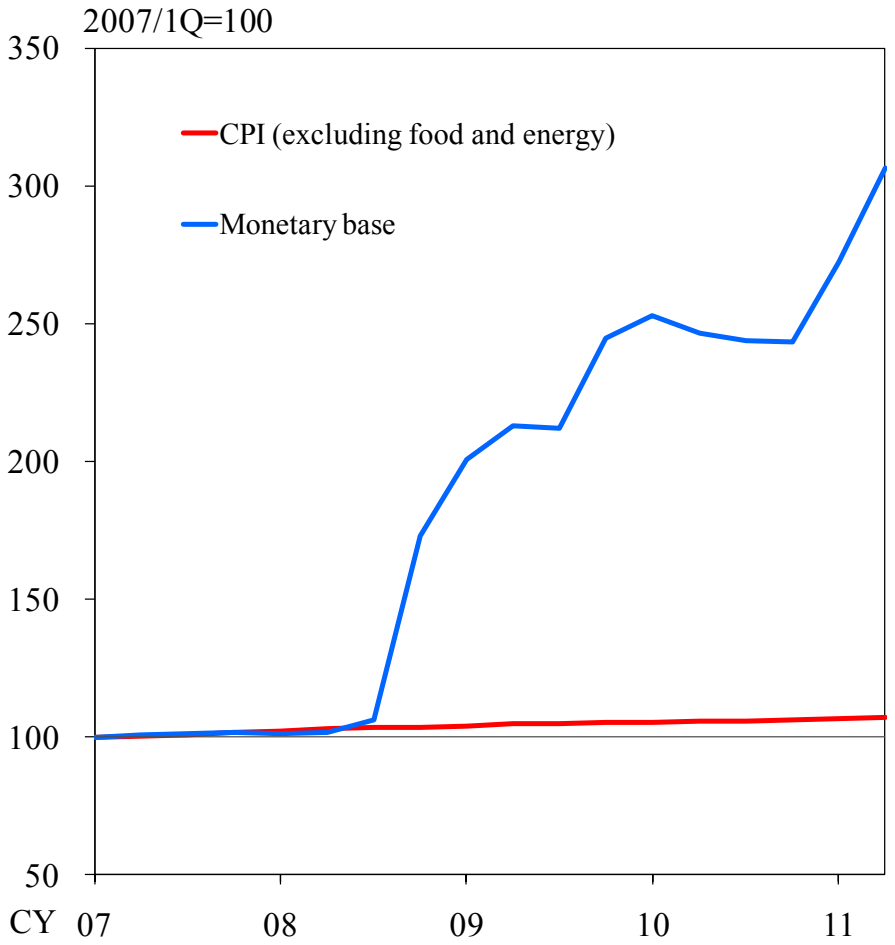

Note: Figures for Japan's CPI are adjusted to exclude the effects of changes in the consumption tax rate.
Sources: Ministry of Internal Affairs and Communications, *Consumer Price Index*; Bank of Japan; BLS; FRB.

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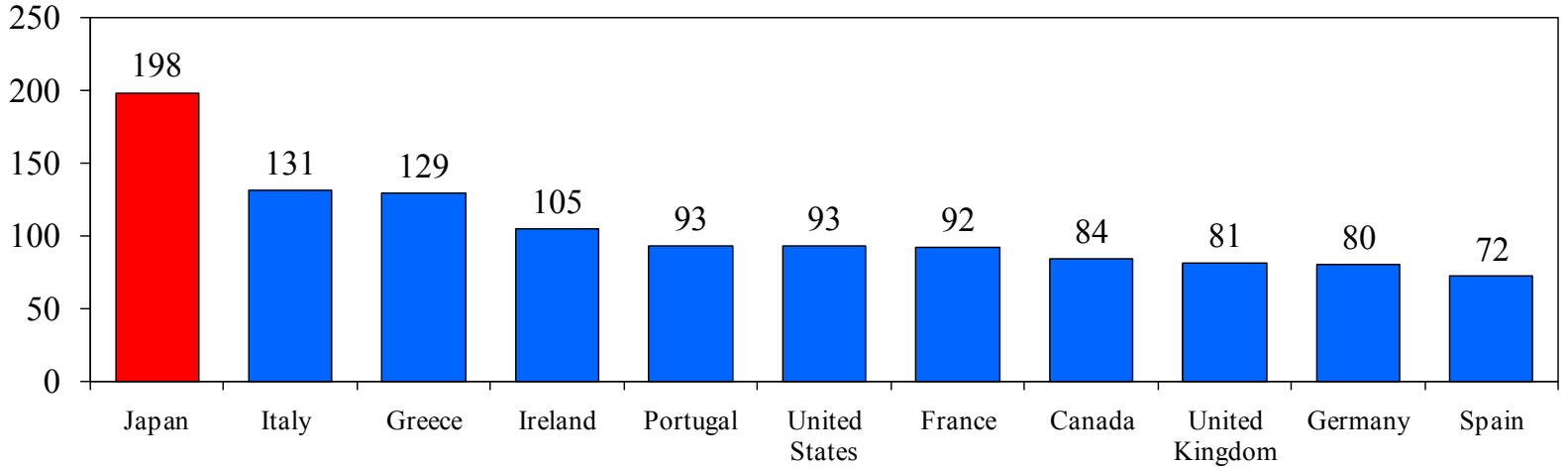
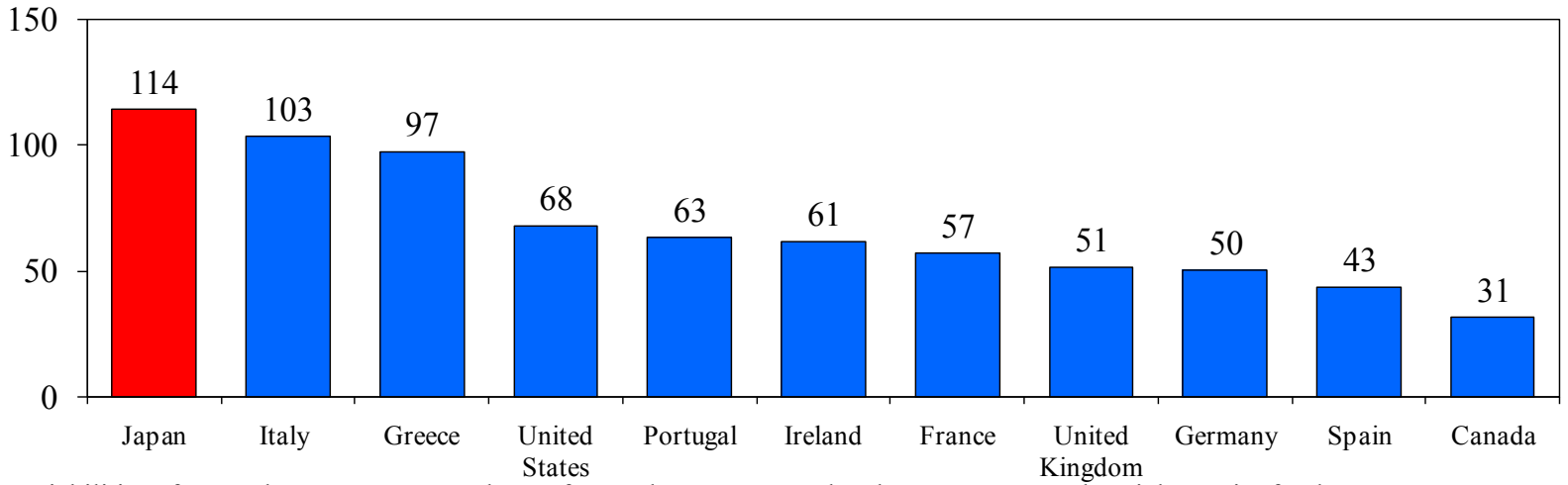
Outstanding Amount of Liabilities of General Governments(Year 2010)

Gross Financial Liabilities : ratio to nominal GDP, %



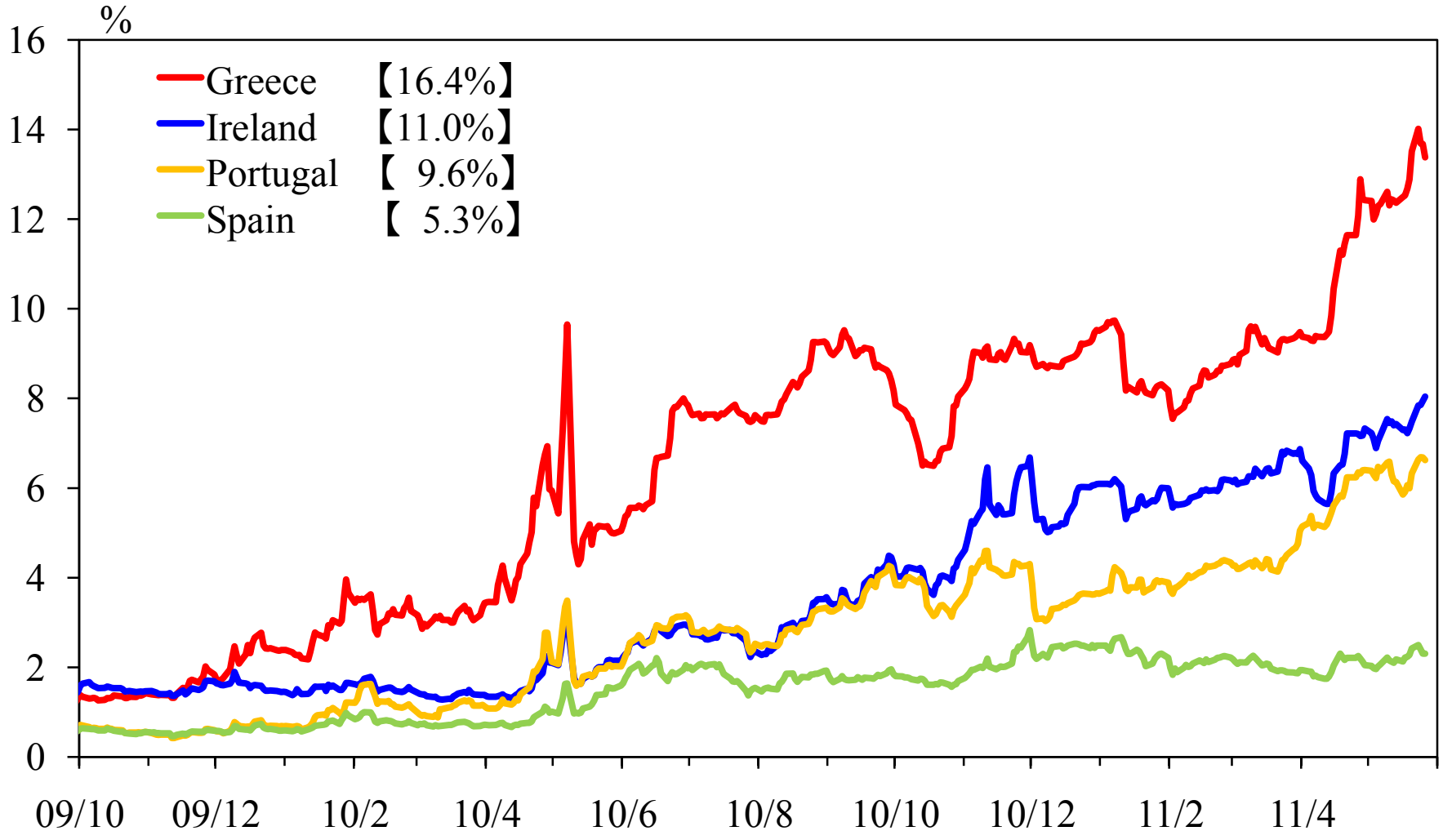
Net Financial Liabilities: ratio to nominal GDP, %



Note: Liabilities of general governments are those of central governments, local governments and social security funds.
Source: OECD.

日本銀行 BANK OF JAPAN

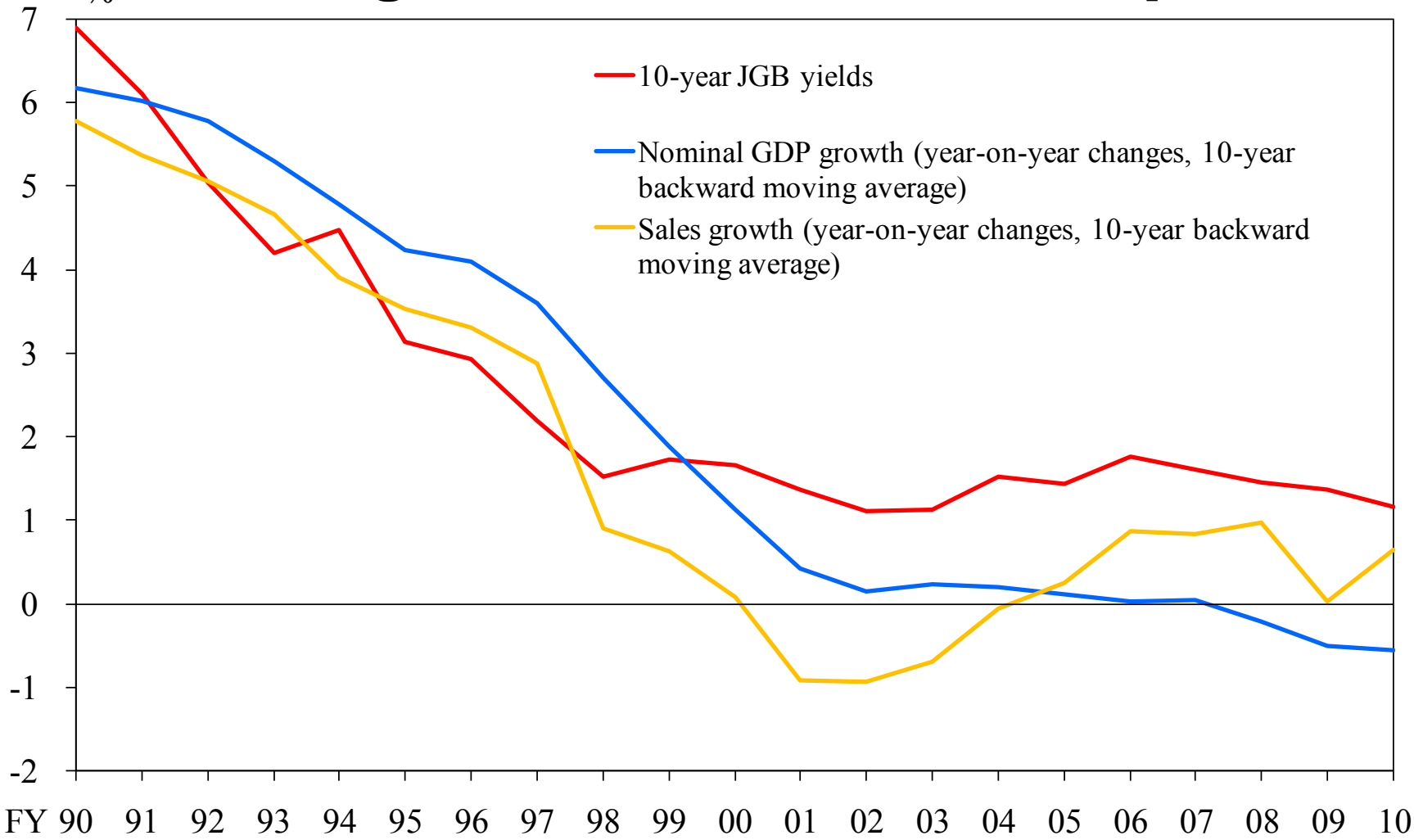
Yield Spreads for European Government Bonds



Notes: 1.The yield spreads for 10-year government securities issued by European countries minus those issued by Germany.
2. Figures in square brackets are 10-year government securities yields.

日本銀行 BANK OF JAPAN

Nominal GDP Growth, Sales Growth and Long-term Interest Rate in Japan



Note: Sales are the total of all industries and all sizes of *Financial Statements Statistics of Corporations by Industry*. The figure for 2010 covers months from April to December only.

Sources: Cabinet Office, *National Accounts*; Ministry of Finance, *Financial Statements Statistics of Corporations by Industry, Annually*, *Financial Statements Statistics of Corporations by Industry, Quarterly*; Bank of Japan.

Bank of Japan's Money Market Operations and Japanese Government Securities

(Bank of Japan's Money Market Operations and Assets)

(tril. yen)

	End-April 2011	(share)	[y-y chg.]
Outright Purchases of Japanese Government Bonds	**60.0**	**(44.6%)**	**[+ 8.2]**
Outright Purchases of Treasury Discount Bills	5.3	(4.0%)	[▲ 3.7]
Funds-Supplying Operations against Pooled Collateral	44.5	(33.1%)	[+ 20.1]
Other Funds-Supplying Operations	1.3	(1.0%)	[▲ 5.8]
Funds-Provisioning Measure to Support Strengthening the Foundations for Economic Growth	2.2	(1.6%)	[+ 2.2]
Japanese Government Securities Purchased through the Bank's Asset Purchase Program	2.4	(1.8%)	[+ 2.4]
Japanese Government Bonds	0.9	(0.7%)	[+ 0.9]
Treasury Discount Bills	1.5	(1.1%)	[+ 1.5]
Others	16.5	(12.2%)	[▲ 5.3]
Total Assets	134.6	(100.0%)	[+ 20.4]

Loans made against pooled eligible collateral accepted by the Bank of Japan by way of open market operations

(Collateral Accepted by the Bank of Japan)

(collateral value, tril. yen)

	End-April 2011	(share)
Japanese Government Securities	**104.4**	**(76.3%)**
Japanese Government Bonds	81.6	(59.6%)
Treasury Discount Bills	22.8	(16.7%)
Loans on Deeds to the Government	17.3	(12.6%)
Corporate Debt (Corporate Bonds, Bills, and Loans on Deeds to Companies)	7.9	(5.8%)
Others	7.3	(5.3%)
Total	136.8	(100.0%)

(Currency Supplied by the Bank of Japan and the Bank's Liabilities)

(tril. yen)

	End-April 2011	(share)	[y-y chg.]
Central Bank Money (Current Account Balances + Banknotes in Circulation)	**115.9**	**(86.1%)**	**[+ 20.7]**
Total Liabilities and Capital	134.6	(100.0%)	[+ 20.4]

Note: The figures for Funds-Supplying Operations against Pooled Collateral include the amount outstanding of that conducted through the Bank's Asset Purchase Program.

Bank of Japan's Purchases of Japanese Government Bonds (JGBs)

(Amounts to Be Purchased from Specific Brackets Classified by Bond Type and Residual Maturity)

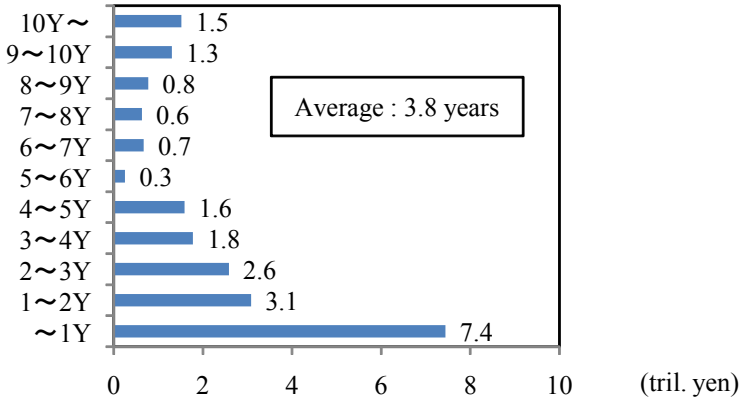
Bonds with Coupons (excluding Floating-Rate Bonds and Inflation-Indexed Bonds)			Floating-Rate Bonds	Inflation-Indexed Bonds	Total
Residual Maturity of					
up to 1 year	more than 1 year and up to 10 years	more than 10 years and up to 30 years			
7.44 tril. yen per year	12.0 tril. yen per year	1.2 tril. yen per year	0.72 tril. yen per year	0.24 tril. yen per year	21.6 tril. yen per year

<Frequency in Purchases>

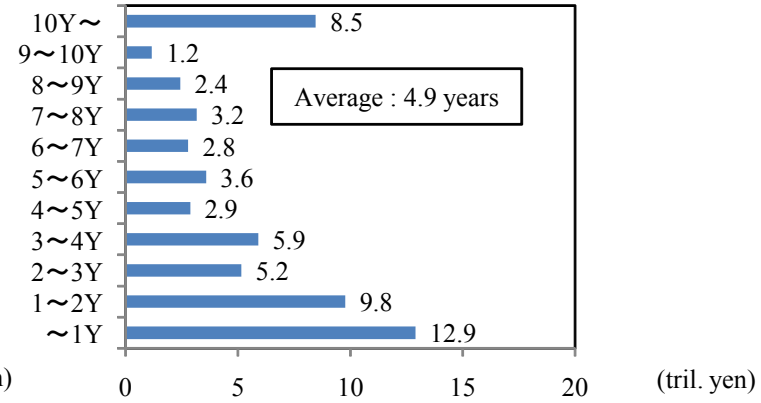
twice a month	four times a month	once a month	once in an even month	once in an odd month

(Maturity Composition of Amounts of JGBs Purchased by the Bank of Japan)

1) Maturity Composition of Amounts of JGBs Purchased by the Bank of Japan in Fiscal 2010



2) Maturity Composition of Amounts Outstanding Purchased by the Bank of Japan (End-March 2011)



Note: Figures do not include those purchased under the Bank's Asset Purchase Program in this slide.

日本銀行 BANK OF JAPAN

Comparison of Economic Condition between the Early 1930s and Present

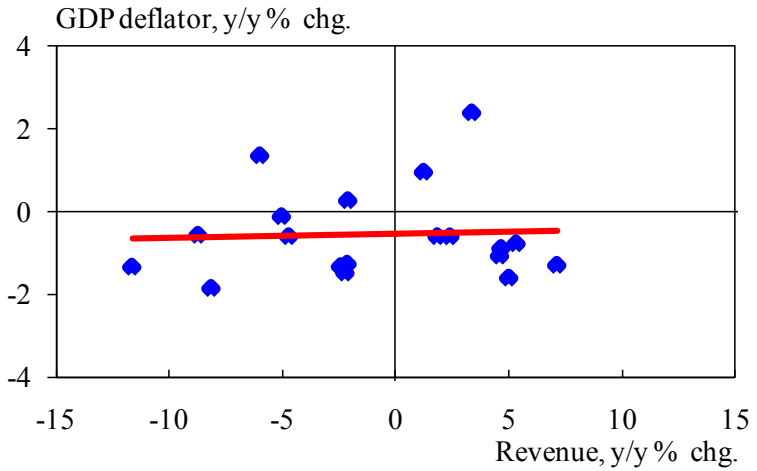
		The early 1930s	Present
Interest rates			
	Call rate[1)]	6.57%	0.07%
	Long-term rate[2)]	5.85%	1.14%
Fiscal indicators（as of percentage of GDP）			
	Government securities outstanding [3)]	47.6%	181.9%
	Annual issuance of government securities[4)]	0.9%	9.2%
Financial assets held by the domestic private nonfinancial sector（as of percentage of GDP） [5)]		274.8%	491.9%
Exchange rate arrangement		The yen depreciated by around 60 percent against the US dollar in a year since the departure from the gold standard in December 1931.	Flexible exchange rate

Notes:
1）For the early 1930s, Tokyo overnight call rate in December 1931; For present, uncollateralized overnight call rate on May 26.
2）For the early 1930s, government bond yield to subscribers in March 1932; For present, 10 year newly issued government bond yield on May 26, 2011.
3）For the early 1930s, sum of government bonds, treasury bills and rice bills in the end of December 1931; For present, sum of general bonds, fiscal investment and loan program bonds, and financing bills in the end of March 2011.
4）For the early 1930s, government bond issues settled in FY 1931 as of percentage of GNP in CY 1931; For present, government bond issues in the budget of FY 2011 as of percentage of GDP forecast by the government.
5）For early 1930s, in the end of the year as of percentage of GNP in 1931; For present, in the end of the year as of percentage of GDP in 2010.

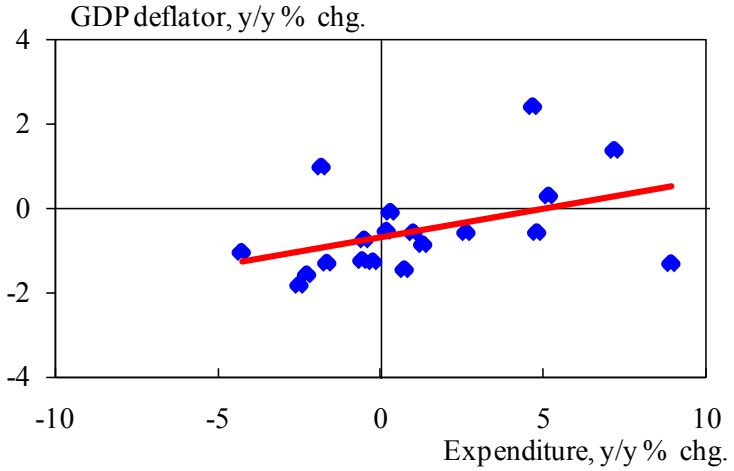
Sources: Bank of Japan, *Economic Statistics of Japan*; Ministry of Finance (MOF), *Reference Book of Financial Matters; MOF Yearbook; MOF, Statistical Yearbook of Government Securities*; Fujino, S., and J. Teranishi, *Quantitative Analysis of Japanese Finance*; Ohkawa, K., et.al, *Estimates of Long-Term Economic Statistics of Japan since 1868 1: National Income*; Bank of Japan ; Cabinet Office, etc.

GDP Deflator, Real GDP Growth and Fiscal Revenue/Expenditure

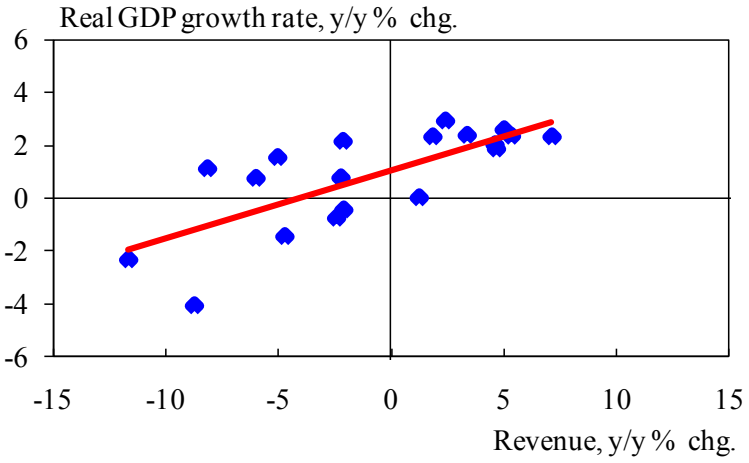
< GDP Deflator and Revenue >



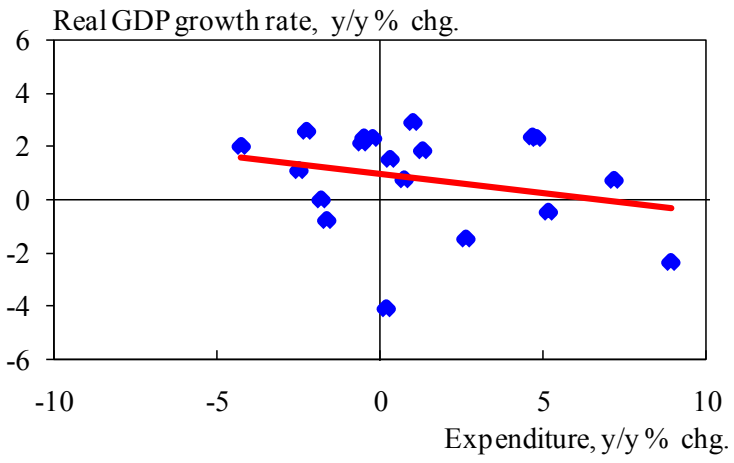
< GDP Deflator and Expenditure >



< Real GDP Growth Rate and Revenue >



< Real GDP Growth Rate and Expenditure >



Note: The sample period is FY1991-FY2009. Figures for revenues and expenditures are those of central and local governments, which include the payment/receivable of interest.

Source: Cabinet Office, *National Accounts*.