



February 7, 2011
Bank of Japan

Toward a Revitalization of Japan's Economy
Speech at the Foreign Correspondents' Club of Japan

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Governor of the Bank of Japan

I. Introduction

I am privileged to have the opportunity to speak before the distinguished Foreign Correspondents' Club of Japan today. The topic I would like to talk about is the revitalization of Japan's economy, focusing on the current state of the economy, the challenges it faces, and the efforts necessary to address such challenges.

If one looks back at the history of any country's economy, one will find times full of confidence and enthusiasm, and times where such confidence and enthusiasm were lacking. The 1980s were a time when the strength of Japan's economy attracted attention from around the world. However, starting in the 1990s, and especially from the latter half of the 1990s onward, Japan's economic conditions deteriorated due to the collapse of the bubble economy and the subsequent financial crisis. The expression that came to represent the state of Japan's economy was the "lost decade," which is commonly used both at home and abroad. I suppose that anyone might lose heart if hearing such an expression often enough. As you may know from experience in your own country, people tend to become overly optimistic or overly pessimistic, depending on the perceived economic performance relative to other countries.

Assessing the economy of one's own country through comparisons with other countries has both its advantages and disadvantages. An advantage is that it provides an opportunity to understand one's own country in a more objective way. A disadvantage is that there are risks of becoming overly optimistic or overly pessimistic, depending on the economic situation at the time. If comparisons are made only superficially, this may lead to a wrong assessment and result in the wrong policy measures or the wrong corporate strategies. At any rate, even in a time when globalization is advancing in leaps and bounds, mutual understanding across borders is not easy. For that very reason, I imagine that the work of foreign correspondents such as yourselves is challenging and exciting.

As a central bank governor, I myself have many opportunities to exchange views with the overseas media and policy authorities abroad. On these occasions, I get asked a great many questions about Japan's economy. Here are the questions I am most frequently asked. First, why Japan's economy has lost its vitality. This is in fact the starting point for the

subsequent questions. The second question is why deflation has continued for a prolonged period. Discussions on the severe economic conditions then lead to the third question: are Japan's public finances sustainable? In this context, I am often asked why, despite the deterioration in the fiscal balance, yields on Japanese government bonds (JGBs) have been stable at low levels. Finally, a fourth question I am often asked is whether Japan's economy can really regain its vitality.

It is an undeniable fact that Japan's economy faces many challenges. However, I believe that Japan's economy can most definitely regain its vitality. Needless to say, we have to work hard to achieve this. Obviously, the right prescriptions are also essential. To this end, it is necessary to have an accurate understanding of both the strengths and the weaknesses of Japan's economy. I am looking forward to exchanging views with you on this point later.

II. The Current State of Japan's Economy

I will start with short-term developments in economic activity in Japan. Japan's economy contracted severely following the failure of Lehman Brothers, but then started to improve around spring 2009. It continued doing so until the summer of 2010, mainly due to the increase in exports and production brought about by faster growth in emerging and commodity-exporting economies as well as policy measures to promote the sale of environment-friendly durable consumer goods. The improvement seems to have paused from the fall of 2010, but recent data suggest that Japan's economy looks like it is about to emerge from that pause. If we compare these short-term developments in Japan's economy with those in other advanced countries, Japan is not doing badly.¹ For example, according to the latest projections by the International Monetary Fund, Japan's economy was expected to grow by 4.3 percent in 2010, the highest rate of growth among the G-7 countries (Chart 1). Moreover, the unemployment rate in Japan, although higher than

¹ For a comparison between Japan's experience after the burst of the bubble and the U.S. and European experience in the recent financial crisis, see Shirakawa, Masaaki, "Uniqueness or Similarity? -- Japan's Post-Bubble Experience in Monetary Policy Studies --," Keynote Address at the Second IJCB Fall Conference hosted by the Institute for Monetary and Economic Studies, Bank of Japan, September 16, 2010 (available at http://www.boj.or.jp/en/announcements/press/koen_2010/ko1009c.htm).

before the failure of Lehman Brothers, is at 4.9 percent, which is far below the roughly 10 percent in the United States and the euro area (Chart 2). Of course, the current level of economic activity is still below that before the global financial crisis and therefore not satisfactory. However, this is a problem common to many advanced economies. With regard to the degree of financial system stability, Japan is the most stable. Thus, as far as short-term economic and financial developments are concerned, Japan's situation is by no means worse than that of other advanced economies.

Despite all this, why are pessimistic views on Japan's economy so widespread? Clearly, the main reason is the downward trend in Japan's economic growth.

Why Japan's Economy Has Lost Its Vitality

Let me now explore the first question I mentioned earlier, that is, why Japan's economy has lost its vitality. From around 1955 to 1970, Japan continued to achieve high-speed growth, registering annual rates of growth around 10 percent, which is similar to China's growth since 1990. Subsequently, Japan's economic growth rate declined gradually. Yet, in the 1980s, the average annual growth rate was still around 4.5 percent, greatly exceeding that of other advanced economies. However, in the 1990s, Japan's annual growth rate fell substantially, dropping to around 1.5 percent, and in the 2000s, the economy grew at barely 1 percent per year on average, although the latter is partly due to the economic plunge triggered by the failure of Lehman Brothers (Chart 3).

The long-term trend of the economic growth rate is determined by two factors: the rate of growth in the number of workers and the rate of growth in GDP per worker, or productivity (Chart 4). Among these, the main factor behind the decline in the growth rate in the 1990s was the decline in productivity growth. The first reason for this decline in productivity growth is the burst of the bubble economy. Many firms had to focus on resolving the so-called "three excesses" -- in production capacity, employment, and debt -- built up during the bubble period, and as a result, Japan's growth rate declined. The second reason, overlapping with the first in some respects, is that Japanese firms were slow to respond to the significant changes in the global economic environment. Specifically, following the fall of the Berlin Wall in 1989, the globalization of the market economy proceeded at a

rapid pace and the world entered an era of "mega competition." However, Japanese firms were not able to sufficiently adapt to this changing environment. Looking back, during the high-speed growth era, Japanese firms were able to grow rapidly thanks to a favorable environment such as an abundant supply of labor and the expansion of the domestic market as a result of population increases, as well as the absence of rivals from less industrialized countries. The business model developed in this environment at the time was based on long-term, stable business relationships and put emphasis on mass production and the sale of low-priced, high-quality products for the domestic market and advanced economies. The model was suitable for the business environment during the high-speed growth era, but because it had been so successful, many Japanese firms were slow to adapt the model when faced with the emergence of new markets and competitors in the 1990s.

In the 2000s, partly because the effects of the burst of the bubble had gradually subsided, productivity growth stopped declining and Japan's productivity growth rate today in fact remains among the highest among advanced countries (Chart 5). However, the rapid aging of the population, at a pace that has no precedence around the world, started to significantly affect economic growth. Specifically, the working-age population -- which makes up the core group in production as well as consumption and the payment of taxes -- peaked around 1995. It then started to decline, with the pace of decrease accelerating since the turn of the millennium (Chart 6). These trends reduce the growth in the labor force and weigh on economic growth from the supply side. At the same time, population aging also affects economic growth from the demand side. The shrinking of the working-age population, which accounts for the bulk of consumption, will decrease the size of the domestic market. Moreover, consumption by the working-age generation is likely to be further constrained by the growing burden of supporting the elderly. Of course, the growing number of elderly means that demand for such services as health care and nursing can be expected to rise. However, if the supply capacity to meet such growing demand remains constrained, domestic demand as a whole will likely be sluggish. Another subtle consequence of demographic trends that cannot be ignored is that the aging of the electorate may affect economic policy choices which in turn may have a negative impact on economic growth.

Why Deflation Has Continued for a Prolonged Period

Next, I will discuss the second question, namely why deflation has continued for a prolonged period. Although Japan's deflation is quite mild when compared with oft-quoted episodes of deflation such as that in the 1930s, this is a question that has attracted a lot of attention. The direct cause of deflation is the slack in the economy (Chart 7). I therefore attribute the most recent price declines to the global plunge in demand following the failure of Lehman Brothers. However, the prolonged, albeit moderate, deflation since the end of the 1990s cannot be explained only by short-term and cyclical factors. A more fundamental cause is the long-term downtrend in the growth potential of Japan's economy. When the growth rate continues to decline for a protracted period, people's expectations for future income growth are reduced and firms and households restrain their spending. As a result, downward pressure on prices continues (Chart 8).

It is sometimes said that deflation will be solved only if the central bank provides liquidity more aggressively. Provision of ample liquidity is important, of course, but this alone does not solve the problem of deflation. In the United States, the Federal Reserve has expanded its balance sheet by a factor of 2.5 since the second half of 2008, but the inflation rate has continued to decline (Chart 9). Thus, to overcome deflation in Japan, two things -- consistent monetary easing and efforts to strengthen the foundations for economic growth -- are essential.

Why Yields on JGBs Have Been Stable at Low Levels

The third question in relation to the severe economic conditions in Japan is why yields on Japanese government bonds (JGBs) have been stable at low levels despite the deterioration in the fiscal balance (Chart 10). In fact, the average yield on 10-year JGBs since the beginning of 2000 has been around 1.4 percent, an extremely low level.

Long-term interest rates are influenced by three factors: the expected growth rate, the expected inflation rate, and the risk premium associated with holding government bonds. Accordingly, one possible explanation for the low and stable long-term interest rates is that it reflects the market's view that, for the time being, Japan's economy will continue to grow slowly and have low inflation.

However, this explanation alone is not sufficient. Given continued large fiscal deficits, if doubts about fiscal sustainability were to spread and investors were to become concerned about the risks associated with holding JGBs, long-term interest rates would rise. So far this has not happened, however. In this context, it is often pointed out that JGBs are largely absorbed by domestic private savings, which contributes to the low and stable long-term interest rates. However, as history shows, no country can continue to run fiscal deficits forever. Viewed from this perspective, it appears that the reason why interest rates in Japan have remained stable is that market participants believe that Japan ultimately has a strong will to work on mid- to long-term fiscal consolidation through, for example, reform of the tax and social security systems. And if I may add one more thing, I think another major reason is that the Bank of Japan's conduct of monetary policy has been clearly focused on achieving sustainable growth with price stability. To put it the other way around, Japan should appreciate and make every effort to maintain the confidence shown by markets while working on mid- to long-term fiscal consolidation.

III. Efforts Needed to Address Japan's Economic Problems

Next, let me turn to the fourth question, namely whether Japan's economy can really regain its vitality. I mentioned earlier my belief that Japan's economy *can* regain its vitality. At the same time, however, this of course cannot be achieved without any effort. The road toward Japan's economic revitalization starts from a clear identification of the root cause of Japan's economic problems. Understanding that this is the downtrend in the growth potential, it is necessary to work on specific solutions.

In this context, some argue that the first thing to do is to overcome deflation. Needless to say, overcoming deflation is a major issue for Japan's economy. In some instances, price increases may of course precede an acceleration in growth, but this is typically only the case when inflation is pushed up as a result of price increases in international commodities such as natural resources, fuel, and food. However, such developments would entail a worsening of the terms of trade and hence a fall in real purchasing power. People would not welcome such price rises. The relationship between economic activity and prices in the past shows that prices increase as growth accelerates and hence the output gap narrows.

This is how the economy usually works. Thus, Japan's moderate deflation is a manifestation of the fundamental problem of the long-term downtrend in the growth potential of the economy.

I would now like to discuss efforts in three areas that I think are particularly important for raising the growth potential of Japan's economy.

The first concerns effort to tackle rapid population aging. Based on current demographic trends, the pace of decline in the working-age population will accelerate in the future. For this reason, society as a whole needs to create a working environment that promotes an increase in labor market participation, especially by the elderly and women. In this context, I would like to note that female labor market participation in Japan remains low in international comparison (Chart 11).

Second, it is necessary to raise productivity growth in the economy as a whole. In this regard, Japanese firms have been diligent, of course. Typical examples are production and inventory management through just-in-time systems as well as *kaizen* (continuous improvement), a term that has made it into English. Following the burst of the bubble, Japanese firms have also been working on reducing labor costs. For individual firms, efforts to pursue operational efficiency are certainly important. However, in a world of increasingly fierce global competition, these efforts alone do not lead to an improvement in productivity. The reason why Japan's *walkman* once dominated markets around the world is that, in addition to high product quality, it offered a new lifestyle, allowing users across all age groups to listen to music outside the home. Taking this as an example, Japanese firms need to make greater efforts not only to improve the functionality and quality of products from the perspective of *monozukuri*, a Japanese expression for "creating substance," but also to provide new value from the perspective of *shikake zukuri*, or going beyond developing a product to create an environment that the product can thrive in.² Thus, what is needed is for firms to make greater efforts to tap latent consumer demand and

² Ikujiro Nonaka and Akira Katsumi, in their book, *The Art of Innovation (Innovation no sahou, 2007, available only in Japanese)*, argue that manufacturing today should not be a mere *monozukuri* that can be measured in terms of quantity, but *kotozukuri*, or event making, that is, the creation of products that tell a certain story with which purchasers can identify and in which they find value.

create new added value. At the same time, in terms of improving productivity in the economy as a whole, efforts at the micro-level alone are not sufficient. What is also crucial is to enhance the metabolism of the economy as a whole, that is, not to impede the smooth transfer of production resources such as capital and labor from areas of shrinking demand to areas of growing demand.

Moreover, it is vital to make efforts to actively capture demand in overseas markets that are enjoying high growth, and many firms have recently been striving for tapping such demand, especially in Asian markets (Chart 12). In these markets, and especially in China, demand for consumer goods is growing exponentially with the expansion of the middle class. At the same time, while enjoying high growth, these countries suffer from problems such as pollution and urban overpopulation, which Japan once experienced. In these areas, there also exist great opportunities for Japanese firms to take advantage of their skills and know-how acquired over many years. In order to actually capture such overseas demand, it is necessary to arrange an open trade system. The Japanese government announced last year that it would accelerate the negotiation of free trade agreements and economic partnership agreements. Developments in discussions on these agreements are of key importance for increasing the productivity of Japan's economy. The government needs to play its part -- through deregulation, tax reform, and the opening of markets -- to provide a business environment that helps to increase productivity.

Third, efforts to improve the fiscal balance are also necessary. The deterioration in the fiscal situation reduces expectations for future income growth, especially among the working-age generation, and restrains spending by this generation. Moreover, as seen in the sovereign debt problems in European peripheral countries since last year, once confidence in fiscal sustainability erodes, this will result in an adverse feedback loop among fiscal conditions, the financial system, and the real economy, with negative consequences for economic activity. An improvement in the fiscal balance is not something that can be achieved through inflation. It is true that if prices rise, tax revenues may increase. At the same time, however, expenditures, such as those on social security and public works, would also increase. If future inflation is factored into long-term interest rates, the burden of interest payments on government bonds would also rise. It is therefore necessary to fully

recognize that an improvement in the fiscal balance cannot be achieved without efforts to both reduce expenditures and increase revenues in real terms (Chart 13).

IV. Recognizing the Need for Reform and Japan's Economic Strengths

I talked at length about efforts that are needed to raise the growth potential of Japan's economy. Unfortunately, however, such efforts have not made sufficient progress. One of the reasons is that the need for reform cannot be immediately felt. This reflects the fact that although the growth potential is declining, Japan's economy stands on relatively firm foundations. For example, because Japan's domestic market is relatively large, firms have been able to make some profit, even if their business focuses only on the domestic market. With regard to the fiscal problem, long-term interest rates have not been rising, the yen has not depreciated, and there has been no capital flight. In fact, even though the recession following the failure of Lehman Brothers was more severe in Japan than in the United States and Europe, in the foreign exchange markets, demand for the yen has actually increased, as it is viewed as a safe-haven currency. This is attributable to the fact that Japan has been running a large current account surplus and is the biggest creditor nation in the world, so that Japan is perceived as among the most robust countries in the world in terms of foreign currency funding.

Be that as it may, given that the decline in the growth rate is a problem that has plagued Japan for a long period, a tremendous amount of human energy is needed to reverse this trend. What concerns me in this regard is that Japanese society is losing a healthy sense of optimism. Just as excessive optimism can generate an asset bubble, excessive pessimism can depress the economy. What is necessary is a strong will for reform and overcoming excessive pessimism. We should keep in mind that Japan's economy and society still have many strengths.

The first strength is that Japan is in Asia, which is the very center of global growth. For example, looking at trade developments with China, which is now Japan's largest trading partner, Japan's exports to China have grown 4.7-fold since 2000, while imports from China have grown 2.7-fold. Moreover, Japan's direct investment position in China has expanded by a factor of more than 5 (Chart 14). Meanwhile, the number of visitors to Japan from

Asian countries has doubled in the past 10 years, to about 7 million, accounting for nearly 80 percent of all visitors. In the future, visitors from Asia are likely to increase further as their living standards improve. This is also expected to provide a significant boost to the various regions in Japan.

Japan's second strength is its high level of technological capabilities. Japan's technological capabilities are particularly high in environmental and energy-related fields, and the energy efficiency of Japan's economy is second to none (Chart 15). Given global trends such as the substantial increase in demand for infrastructure in emerging economies, the shift to a low-carbon society, and the growing role of environmental protection, the need for Japan's advanced technologies in such areas is bound to rise in the future. In fact, there are a considerable number of Japanese firms that have gained a substantial global market share by making use of advanced technologies in electricity generation and storage or water purification and desalination. Moreover, in a recent new trend, electric power companies and local governments, exploiting their ability to provide efficient and reliable service, have shown great eagerness to enter overseas markets in the area of urban infrastructure development, such as the distribution of electricity and water.

A third strength -- although it is difficult to find the right word -- is what may be called the "soft power" of Japanese society.³ I am sure you yourself, as a foreign correspondent in Japan, have probably experienced how safe Japan is, as demonstrated by the great number of vending machines, how reliable business operations are, as epitomized by the bullet train, which is always on time, or how courteous the service is one receives in retail stores. It seems to me that soft power, such as safety and trust, is becoming an increasingly important asset in a globalized economy.

Earlier, I mentioned that the rapid aging of the population is weighing on Japan's economy. On the other hand, population aging, that is, an increase in longevity, should also generate an increase in demand in areas such as health care and nursing, tourism and leisure. For example, the turnover of fitness clubs has increased by nearly 40 percent in the past ten

³ This term was first used by Joseph S. Nye, Jr., who focused on the role of the culture or values of a country in the area of international politics and calls this *soft power* as opposed to *hard power* such as military power.

years, reflecting the increase in health consciousness due to population aging. At the same time, in areas that are regulated, such as health care and nursing care, supply capacity is insufficient and there is a mismatch of demand and supply. In these areas, there seems to be ample room for tapping potential demand in the domestic market. Japan is the country in the world where the problem of aging and population decline is the most acute, but other countries in Asia will face the same challenges in the not-so-distant future (Chart 16). Looking back, the rapid development of energy-efficient technology in Japan was triggered by major challenges, namely serious pollution and the rise in oil prices. The population aging Japan is now experiencing also represents a major challenge. At the same time, however, if Japan applies its technological capabilities, as epitomized by its robots, as well as its soft power, this challenge can give rise to new business models such as in the provision of personalized nursing care services and therefore also presents great business opportunities for Japanese firms.

V. The Bank of Japan's Policy Response

Finally, I would like to briefly explain the policy responses the Bank of Japan has implemented in order for Japan's economy to overcome deflation and return to a sustainable growth path with price stability. To start with, the Bank is pursuing powerful monetary easing, so-called "comprehensive monetary easing." The overnight call rate is virtually zero percent, the lowest in the world, and the Bank has committed itself to continuing the virtually zero interest rate policy until it judges, on the basis of the "understanding of medium- to long-term price stability," that price stability is in sight. Moreover, although extraordinary for a central bank, the Bank last autumn started purchasing risk assets such as exchange-traded funds (ETFs) and Japan real estate investment trusts (J-REITs).

In addition, to strengthen the growth potential, the Bank has also introduced a new program. Through this program, it provides long-term funds with JGBs and other assets as collateral at a low interest rate, to support financial institutions' own initiatives in lending and investing in new growth areas. The Bank strongly hopes that the program, by acting as a "catalyst," will prompt vigorous efforts by financial institutions and firms.

In many respects, Japan has been the first among major economies to experience challenges such as balance sheet adjustments, a financial system crisis or rapid population aging. On the monetary policy front, many central banks in advanced countries have now adopted policy measures such as a zero-interest rate policy, quantitative easing, or credit easing. However, at the time, the Bank of Japan, the "forerunner" in implementing these policies, needed to devise such policies on its own. I feel that such creativity and innovativeness by the Bank deserves more recognition. Nonetheless, the Bank will continue to consistently make contributions as the central bank toward the crucial objective of achieving a revitalization of Japan's economy.

VI. Concluding Remarks

Today, I have talked about the challenges facing Japan's economy and efforts needed for economic revitalization. Looking back at modern economic history, there are many countries that achieved economic revitalization once they earnestly addressed severe challenges that were initially seen as difficult to resolve. To give an example of another advanced economy, the United States, from the second half of the 1970s to the 1980s, faced the challenge of a decline in the international competitiveness of its manufacturing industries, which had enjoyed an overwhelming advantage. Another example is Korea. Its strong manufacturing sector is currently attracting attention, but only about a decade ago it found itself in distress in the face of a serious currency crisis. Korea took a hard look at the causes of the crisis and reformed its economic structures to prevent such a crisis from recurring. Such efforts have led today's rapid progress. These examples suggest that history is a constant process of the rise and conquest of new challenges. Japan's economy is not an exception. Each time a new challenge arose, Japan overcame it through painstaking efforts and a strong sense of urgency. I think that once people share a will for reform, they can press ahead with tackling the critical issues Japan's economy faces.

In Japan, 2011 is the year of the rabbit. In our country, a rabbit running up a hill symbolizes a situation where things are progressing smoothly. And in the West, it is the rabbit that brings Easter eggs, which are a symbol of rebirth. For my part, I strongly hope that this year will be a year of revitalization for Japan's economy.

Toward a Revitalization of Japan's Economy

*Speech at the Foreign Correspondents' Club of Japan
7 February 2011*

Masaaki Shirakawa
Governor of the Bank of Japan

Chart 1

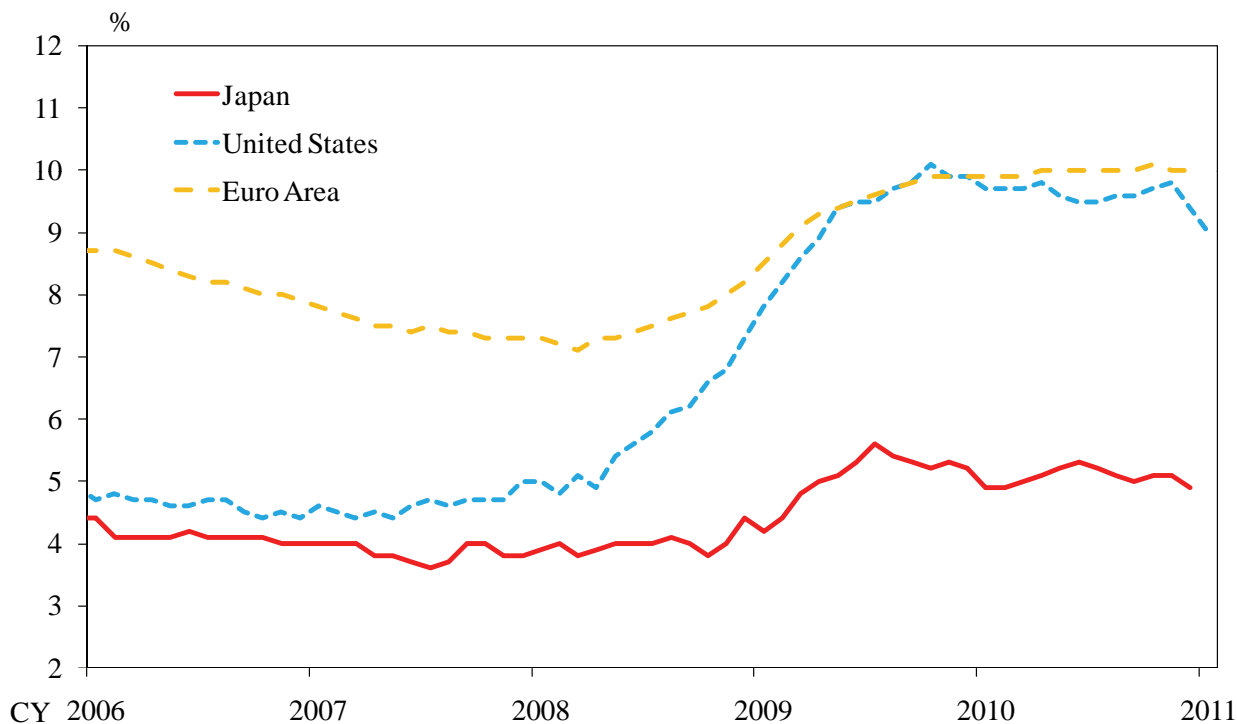
Japan's growth in 2010 is estimated to be the highest among the G7 countries.

y/y % chg.

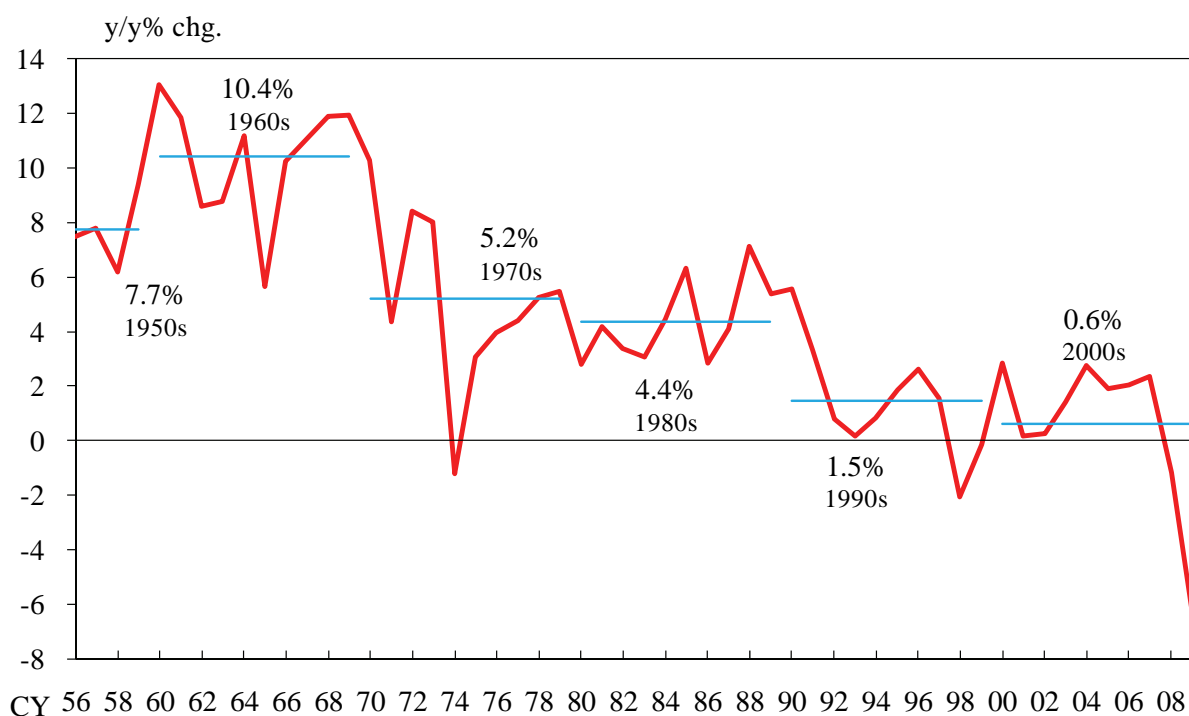
	Japan	United States	United Kingdom	Germany	France	Italy	Canada
2007	2.4	1.9	2.7	2.7	2.3	1.5	2.2
2008	-1.2	0.0	-0.1	1.0	0.1	-1.3	0.5
2009	-6.3	-2.6	-4.9	-4.7	-2.5	-5.0	-2.5
2010 Estimates	4.3	2.8	1.7	3.6	1.6	1.0	2.9

Note: Estimates by the IMF as of January 2011.
Source: IMF.

Japan's unemployment rate is far below those of the U.S. and the euro area.



Japan's growth rate is trending down.

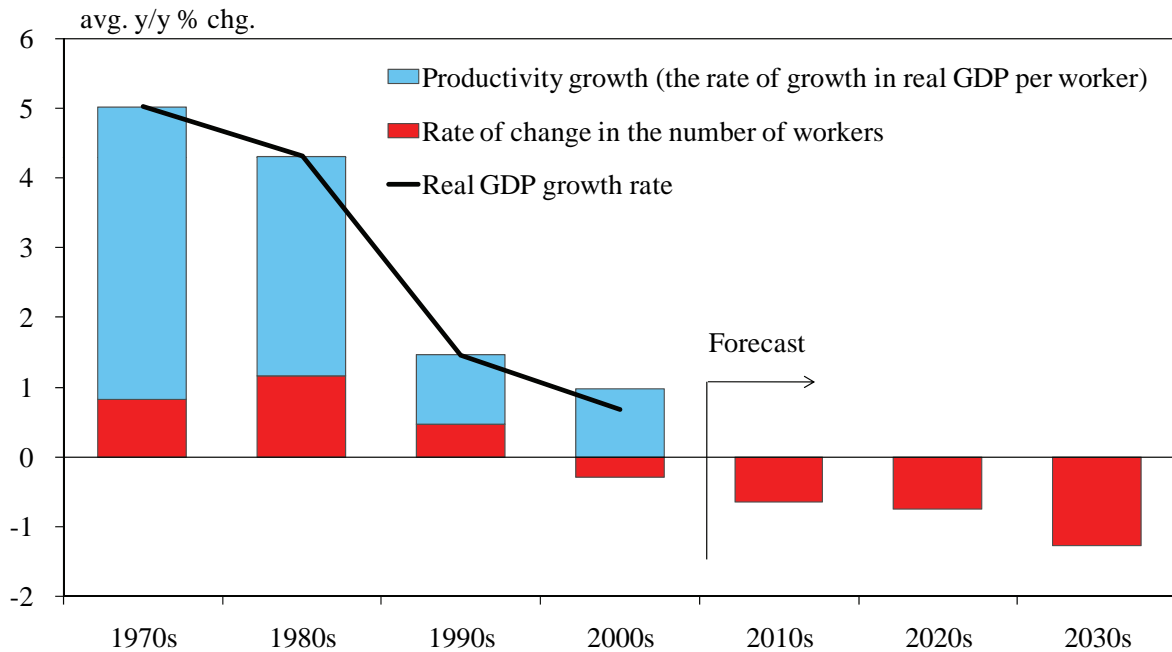


Note: Figures up to 1980 are based on the 68SNA, while those from 1981 are based on the 93SNA. The average for the 1950s is the average from 1956 to 1959.

Source: Cabinet Office, *National Accounts*.

Chart 4

Japan's GDP growth is dragged down by the decrease in the number of workers, as well as the decline in productivity growth.

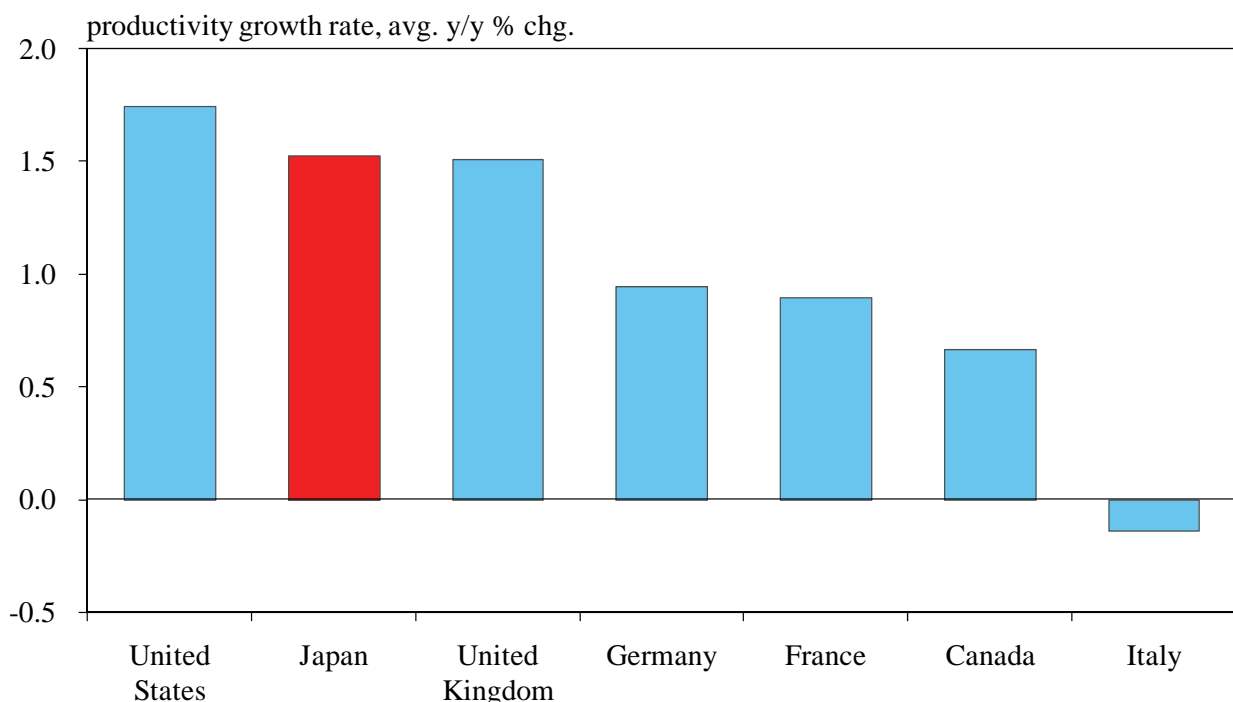


Note: Figures are on a fiscal year basis. The rate of change in the number of workers from the 2010s is calculated using the projected future population (medium variant) and the projected labor force participation rate (assuming that the labor force participation rate in each age/sex group remains the same as that in 2009).

Sources: Cabinet Office, *National Accounts*; Ministry of Internal Affairs and Communications, *Labour Force Survey*; National Institute of Population and Social Security Research, *Population Projections for Japan: 2006-2050*.

Chart 5

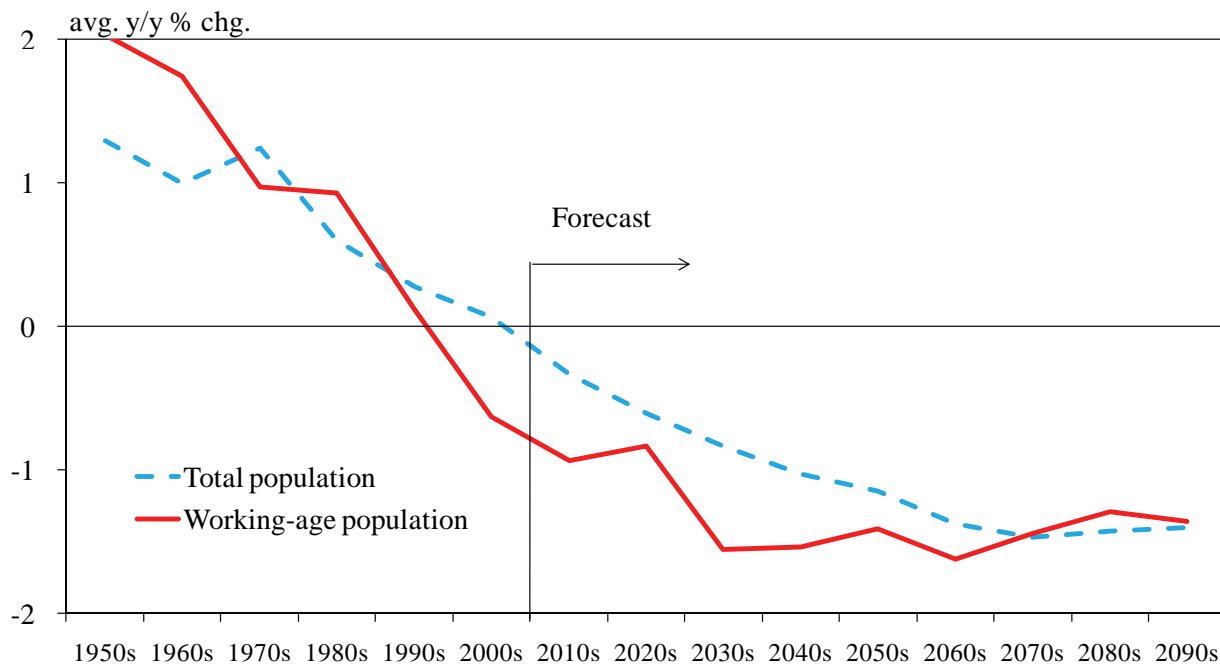
Japan's productivity growth rate, although it has decreased, remains among the highest among advanced countries.



Note: Figures are calendar 2000-2008 averages to exclude the effects of the financial crisis after the failure of Lehman Brothers.

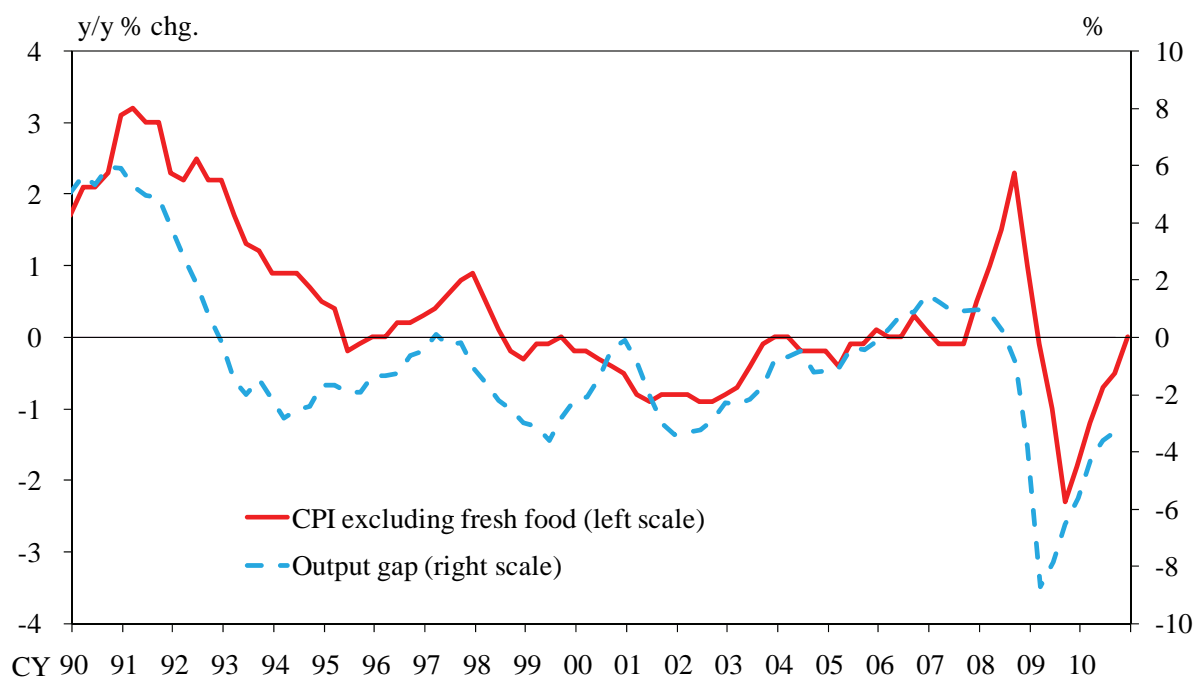
Source: OECD.

The pace of decrease in the working-age population is accelerating.



Note: Figures from 2010 are calculated using the projected future population (medium variant).
Sources: National Institute of Population and Social Security Research, *Population Projections for Japan: 2006-2050*; Ministry of Internal Affairs and Communications, *Population Estimates*.

The direct cause of deflation is the slack in the economy.

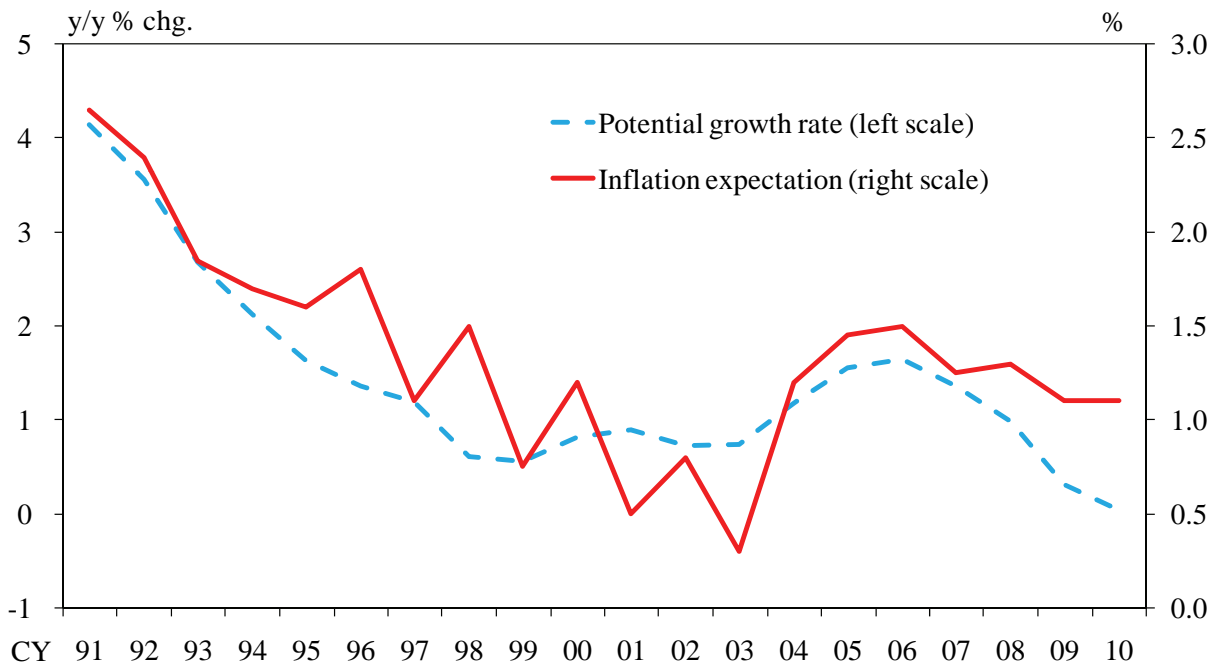


Notes: 1. Figures for the CPI are adjusted to exclude the effects of changes in the consumption tax rate. From 2010/Q2, the figures exclude the high school fees.

2. The output gap is estimated by the Research and Statistics Department, Bank of Japan.

Sources: Ministry of Internal Affairs and Communications, *Consumer Price Index*; Bank of Japan.

Japan's growth potential and inflation expectations are closely correlated.



Notes: 1. Figures for the expected rate of inflation are the average of economists' projections for the CPI inflation rate (forecasts 5 to 10 years ahead) every April and October in the *Consensus Forecasts*.

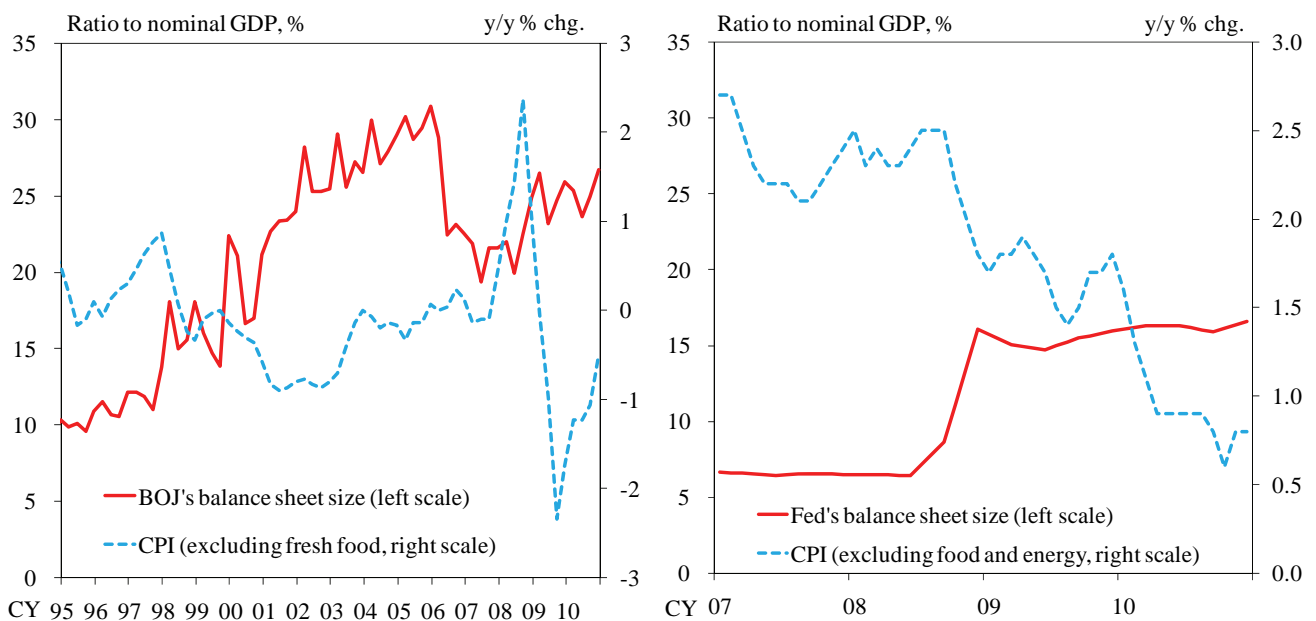
2. The potential growth rate is estimated by the Research and Statistics Department, Bank of Japan.

Sources: Consensus Economics, *Consensus Forecasts* (<http://www.consensus-economics.com>); Bank of Japan.

Both in Japan and the U.S., inflation rates have not risen despite the massive expansion of central bank balance sheets.

< Japan >

< United States >

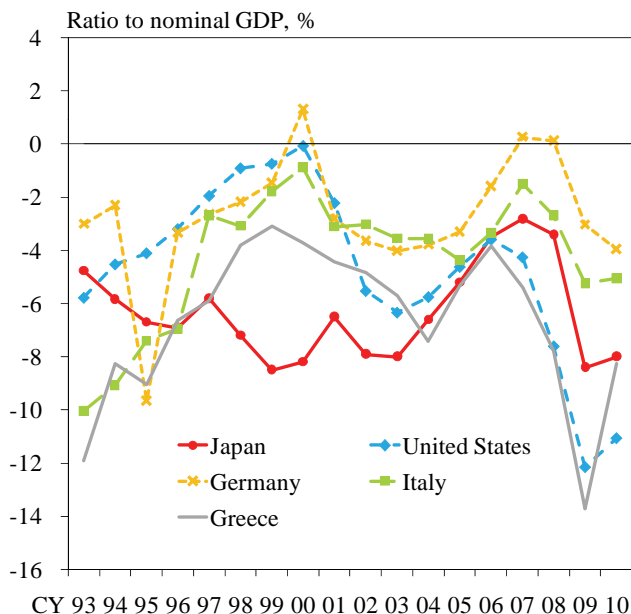


Note: Figures for Japan's CPI are adjusted to exclude the effects of changes in the consumption tax rate.

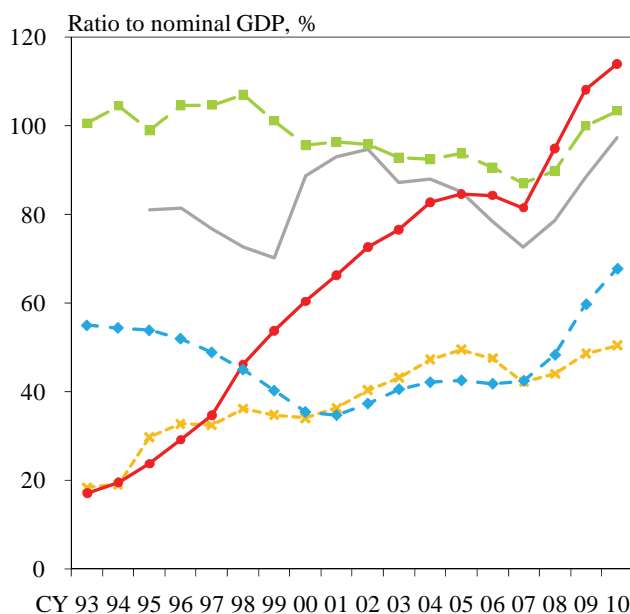
Sources: Cabinet Office, *National Accounts*; Ministry of Internal Affairs and Communications, *Consumer Price Index*; Bank of Japan; BEA; BLS; FRB.

Japan continues to have a large fiscal deficit.

< Fiscal Deficit >



< Net Debt Outstanding >

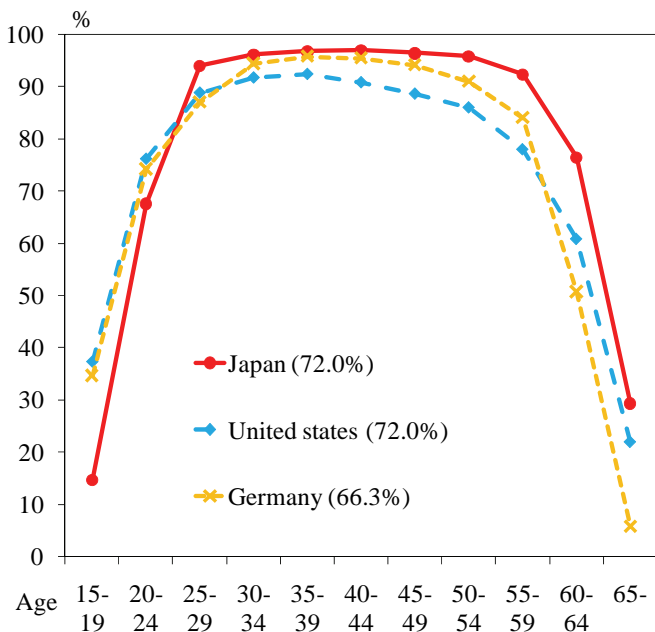


Notes: 1. Figures are for the general government. Deficit figures for Japan and the United States exclude social security funds.
 2. Net debt outstanding is gross debt outstanding minus general government financial assets.

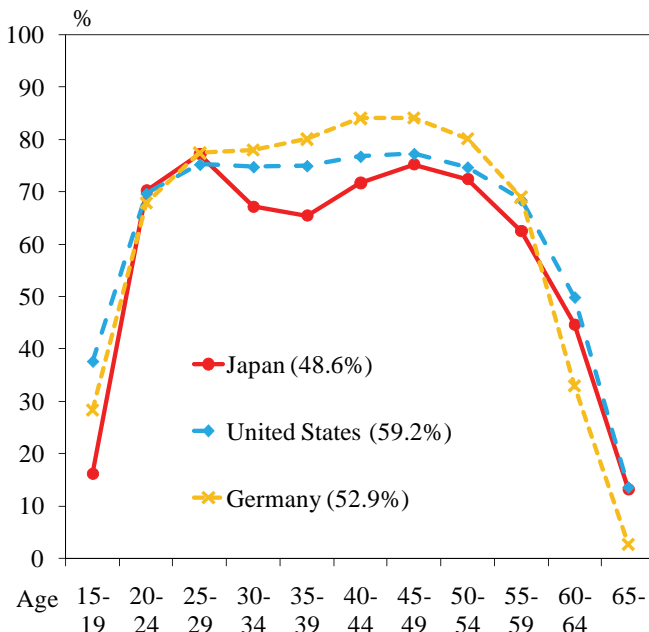
Sources: Ministry of Finance; OECD.

Female labor market participation in Japan remains low in international comparison.

< Male >



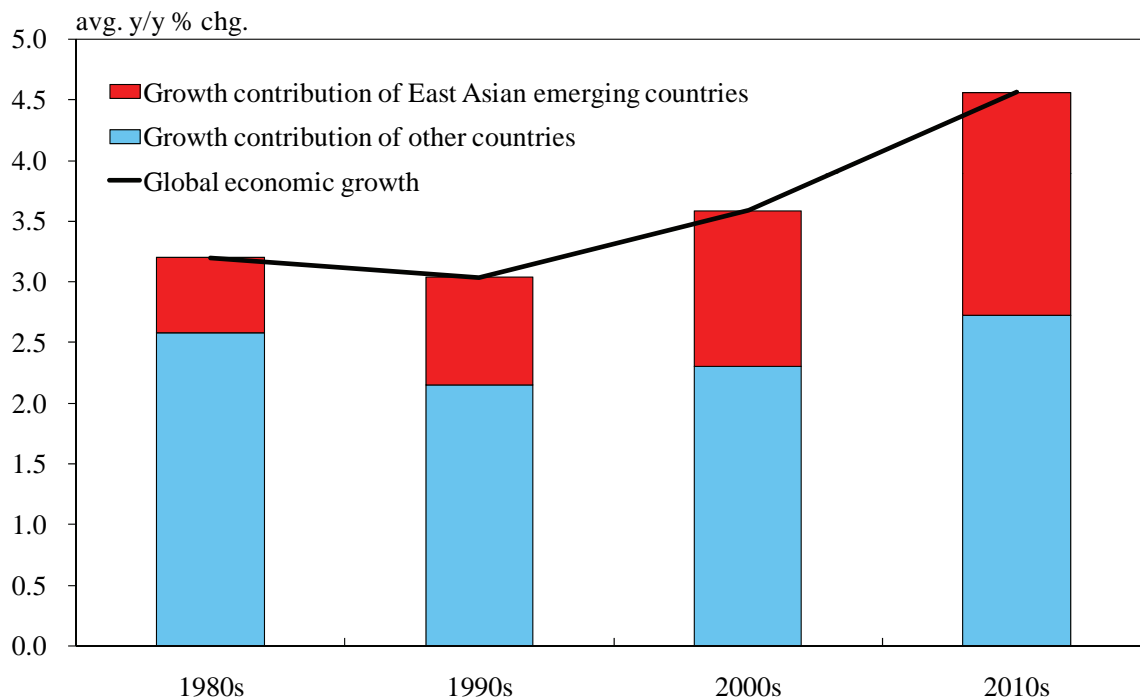
< Female >



Notes: 1. Figures are as of 2009.
 2. Figures in parentheses show the labor force participation rate of the population aged 15 and older.

Source: OECD.

East Asian countries serve as the driving force behind the global economic expansion.



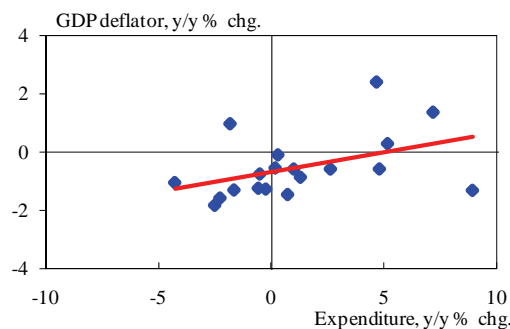
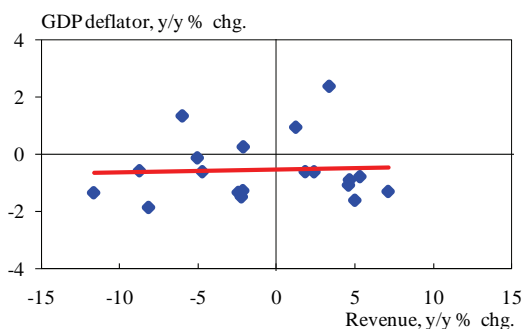
Note: East Asian emerging countries here include China, the NIEs, and the ASEAN4 countries. Figures for the 2010s are calculated using the 2010-2015 projection by the IMF as of October 2010.

Source: IMF.

Inflation does not improve the fiscal balance. A rise in real economic growth rate does.

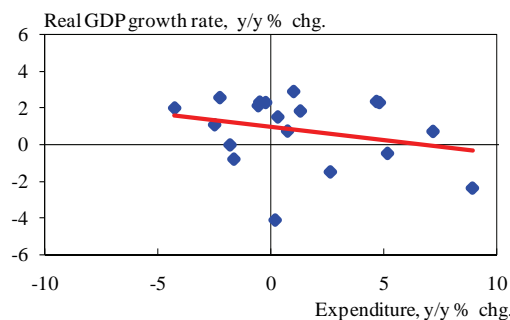
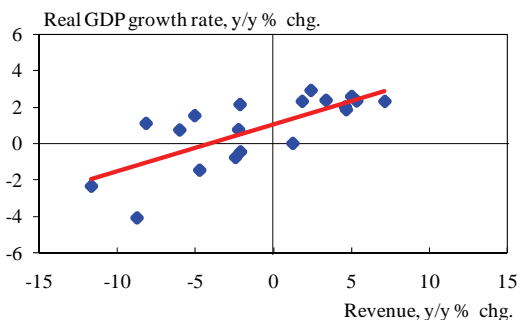
< GDP Deflator and Revenue >

< GDP Deflator and Expenditure >



< Real GDP Growth Rate and Revenue >

< Real GDP Growth Rate and Expenditure >



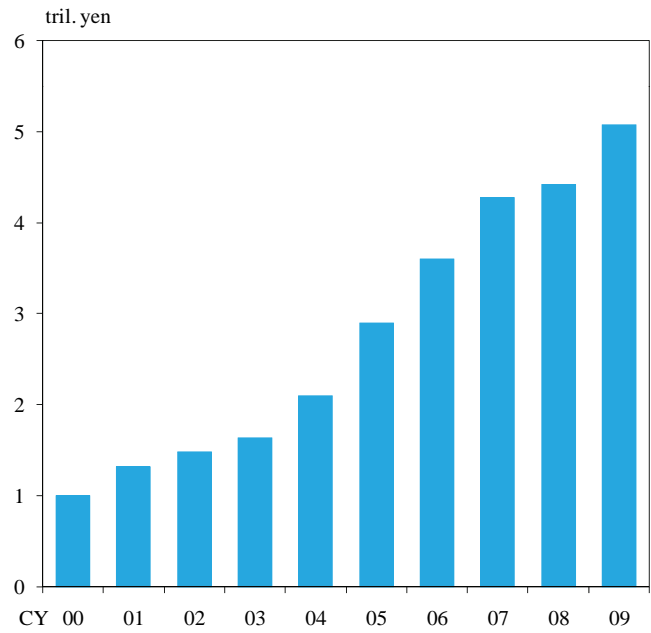
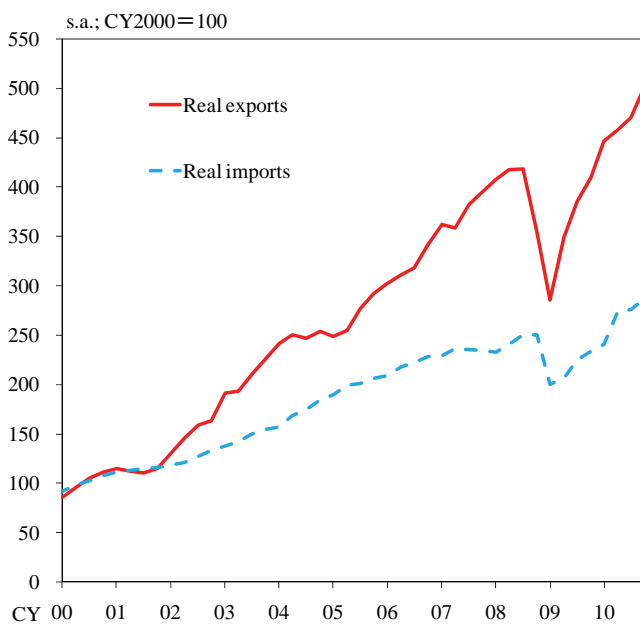
Note: The sample period is FY1991-FY2009. Figures for revenues and expenditures are those of central and local governments, which include the payment/receivable of interest.

Source: Cabinet Office, *National Accounts*.

Economic ties between Japan and China have been getting stronger.

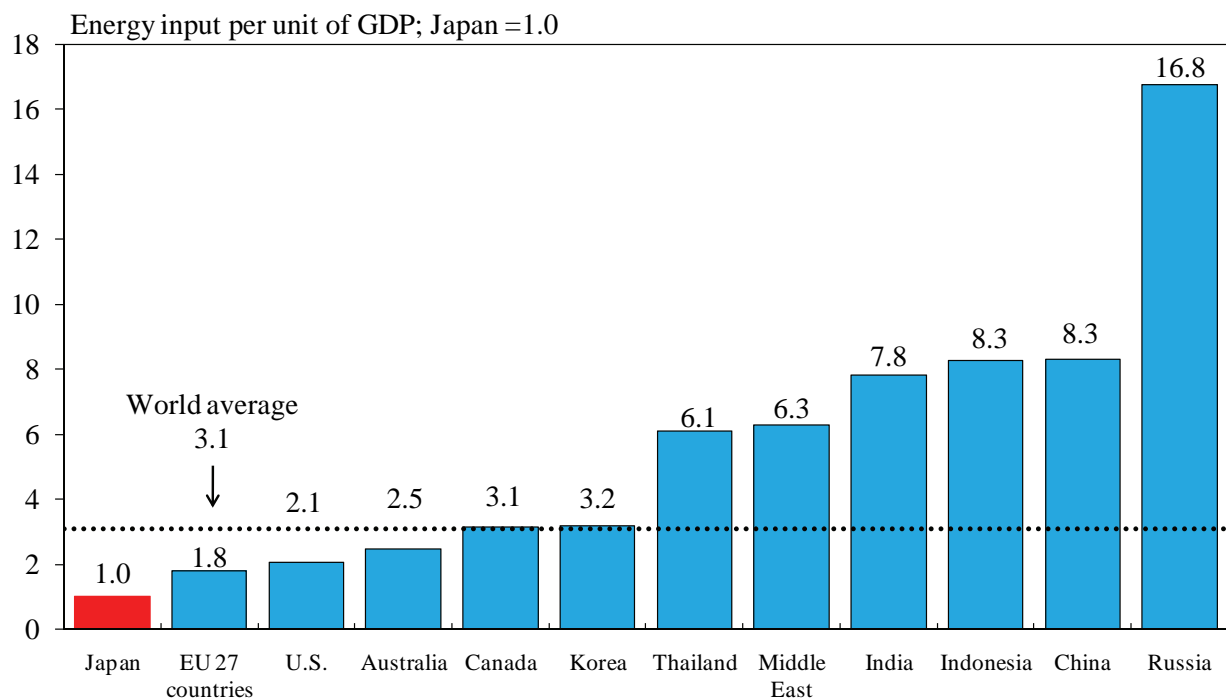
< Exports to and Imports from China >

< Japan's Direct Investment Position in China >



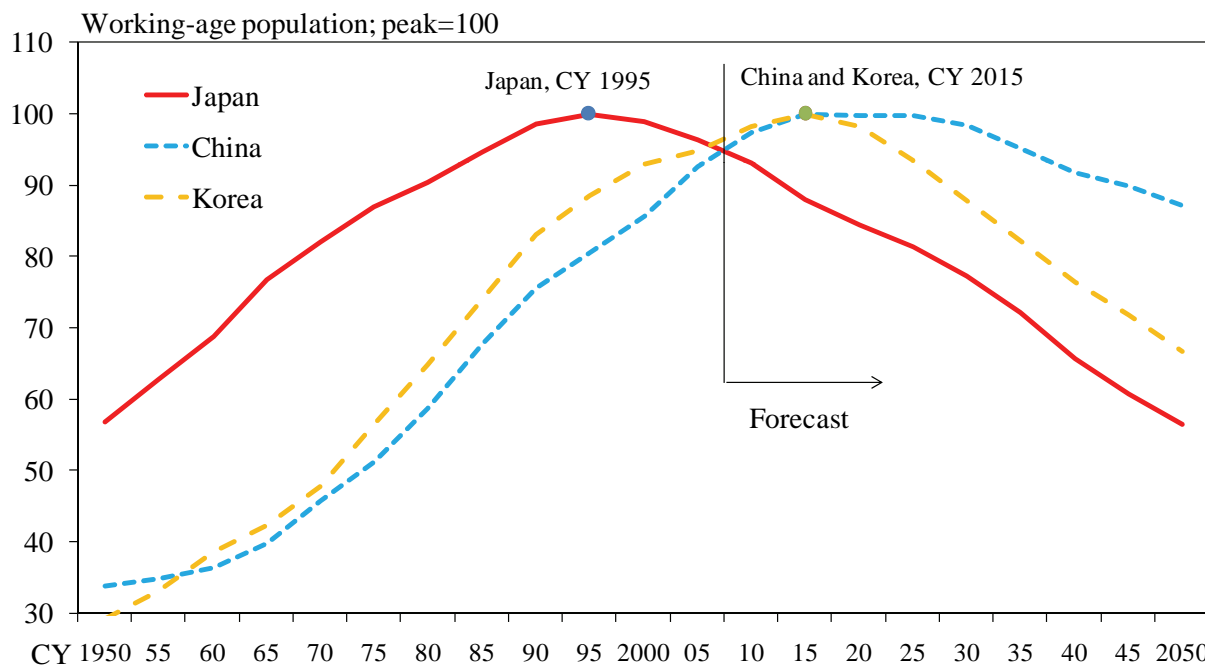
Sources: Ministry of Finance, Trade Statistics, Balance of Payments; Bank of Japan, Corporate Goods Price Index.

Japan's economy shows the most efficient energy use.



Sources: Agency for Natural Resources and Energy, 2010 Annual Report on Energy; International Energy Agency.

China and Korea will also face the challenge of aging and declining populations.



Note: Figures for Japan are calculated using the *Population Estimates* and the projected future population (medium variant) from *Population Projections for Japan: 2006-2050*. Figures for China and South Korea are based on estimates by the United Nations.

Sources: National Institute of Population and Social Security Research, *Population Projections for Japan: 2006-2050*; Ministry of Internal Affairs and Communications, *Population Estimates*; United Nations.