Japan's Economy and Monetary Policy

Speech at a Meeting with Business Leaders in Niigata

Masazumi Wakatabe
Deputy Governor of the Bank of Japan

(English translation based on the Japanese original)
Introduction

It is my pleasure to have the opportunity today to exchange views with administrative, financial, and business leaders in Niigata Prefecture. I also would like to take this opportunity to express my sincere gratitude for your cooperation with the activities of the Bank of Japan's Niigata Branch.

This is my first time to attend a meeting of this kind since I was appointed Deputy Governor of the Bank of Japan in March this year. It is said that people here in the Echigo and Sado regions historically have overcome severe natural environment -- such as dealing with heavy snow, crossing over mountain ridges, and managing floods -- with diligence, patience, and great ingenuity.1 I would like to hear your views on the current status of the local economy, as well as your candid opinions about the Bank's policies and activities. First, I will briefly explain developments in Japan's economic activity and prices, and then talk about the Bank's conduct of monetary policy.

I. Current Developments in Economic Activity and Prices

Let me start by talking about the current developments in economic activity. Japan's economy is expanding moderately. The real economic growth rate excluding the effects of price movements, after registering relatively high growth of 3.0 percent on an annualized basis in the April-June quarter of this year, marked negative growth of minus 1.2 percent in the July-September quarter. This likely is mainly due to temporary factors accompanying natural disasters that occurred successively this summer. Such a view is underpinned by the fact that exports and production, which had declined due to the effects of natural disasters, have turned to an increase since October.

The current economic recovery phase likely has lasted for six years already, which mostly overlaps with the period of quantitative and qualitative monetary easing (QQE) that the Bank introduced in April 2013, and this month its duration is expected to be the same as the

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longest post-war recovery phase in the mid-2000s (Chart 1). I would like to point out two characteristics of the current prolonged economic recovery, as follows.

A. First Characteristic of the Current Recovery: Economic Recovery Being Widespread

The first characteristic is that the economic recovery has been widespread, bringing about benefits to a wide range of economic entities.

First, in the corporate sector, there has been notable improvement not only in large firms but also small and medium-sized firms (Chart 2). For example, according to our Tankan (Short-Term Economic Survey of Enterprises in Japan), the proportion of small enterprises responding that their business conditions have been “favorable” clearly has exceeded the proportion of those responding that they have been "unfavorable" for the first time since 1991. Corporate profits also have improved widely, with domestic demand increasing under large-scale monetary easing. In particular, profits of small and medium-sized firms that support regional economies clearly have increased. This is a characteristic that was not observed in the economic recovery phase in the mid-2000s, when improvement in corporate profits was uneven, seen mainly in large manufacturing firms that benefited from high growth in overseas economies.

Such improvement in the corporate sector -- including small and medium-sized firms in local areas -- has led to firms' more active spending, such as business fixed investment, and its effects also have spread to the household sector through increases in employment and

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wages. The number of job openings has increased significantly, with the active job openings-to-applicants ratio currently standing in the range of 1.6-1.7, a level that exceeds the peak of the bubble period in the late 1980s (Chart 3). Labor market conditions have been tightening across Japan, and the active job openings-to-applicants ratios recently have exceeded 1 in all prefectures, which was not observed even in the bubble period. At the same time, the unemployment rate has declined in a wide range of regions.

An improvement in the labor market has been widespread across generations as well. For example, the unemployment rate of the younger generation aged 15-24 rose substantially amid the Japanese financial crisis of the late 1990s, and declined only moderately for a long time after that (Chart 4). However, the situation has changed dramatically in the past few years. The youth unemployment rate has declined to a level below that of the bubble period, and labor market conditions for new graduates have created more of a seller's market than ever before. With the perception of labor shortage heightening further, the number of long-term unemployed workers -- those unemployed for over a year -- has been declining steadily, although it used to be considered quite difficult for them to find a job. In addition, improvement in the employment situation has contributed to providing new job opportunities for those who had not participated in the labor market before. The population aged 15-64 that has played a major role in the labor market, or the so-called working-age population, has been declining from the peak in around 2000. On the other hand, the number of employed persons recently has been increasing substantially (Chart 5). This is a result of labor participation by women and seniors promoted through improvement in employment together with the development of various labor-related measures by the government. In addition, the poverty rate, which has risen moderately since the 1990s, recently seems to have flattened or declined somewhat.

The declines in the youth unemployment rate and long-term unemployment rate, as well as the increase in labor participation by women and seniors, are significant not only in terms of increasing the current employment and production but also strengthening the growth potential of the economy in the future. People acquire skills through actually working each day and thereby raise their productivity. In particular, whether or not people have job opportunities to enhance skills in their youth is likely to significantly affect their future
careers as well as the productivity of an economy as a whole. Given this, it is very important to provide diverse and stable job opportunities for the younger generation. The decline in the long-term unemployment rate also leads to raising the economy's productivity, since skills could be lost gradually as the duration of unemployment becomes prolonged. Widespread improvement in the labor market is likely to raise the growth potential of Japan's economy.

B. Second Characteristic of the Current Recovery: Inflation Rate Turning Positive
The second characteristic of the current economic recovery is that wages and prices have turned to an increase under large-scale monetary easing, which is different from the case in the mid-2000s, when prices continued on a declining trend. The year-on-year rate of change in the consumer price index (CPI) has been on an uptrend for more than five years since autumn 2013, and Japan's economy is no longer in deflation, in the sense of a sustained decline in prices (Chart 6). Price developments clearly have improved compared to the period prior to the introduction of QQE, when the economy experienced prolonged deflation. However, while the Bank's price stability target is to achieve the inflation rate of 2 percent, the current rate is at around 1 percent. I will later talk about this point in detail, together with the Bank's monetary policy.

II. Outlook for Economic Activity and Prices
Now I would like to explain the outlook for economic activity and prices.

A. Outlook for Economic Activity
I will first touch upon the outlook for economic activity. Japan's economy is expected to continue on an expanding trend from fiscal 2019 through fiscal 2020. Corporate profits at high levels and improvement in the employment situation are expected to bring about increases in business fixed investment and private consumption, with overseas economies continuing to grow firmly on the whole.

However, there are various risk factors to this baseline scenario, including developments in overseas economies. In particular, the consequences of the trade friction between the United States and China still warrant some attention. In addition to this friction, various problems
exist between the two countries, including those regarding intellectual property rights, technology transfer, and national security. Thus, the situation may remain highly uncertain ahead of resolution of these problems. At this point, the impact of these problems on economic activity at home and abroad is likely to be limited. However, if the problems become more complex and prolonged, downward pressure on the global economy could heighten not only through the gradual spread of the negative effects on trade activity, but also deterioration in firms' fixed investment stance and cautiousness in financial market sentiment. Looking back, the Great Depression of the 1930s is well known as a period when protectionist policies prevailed around the world. Subsequent research suggests that what mainly brought about the significant global economic downturn was severe deflation under fiscal and monetary policies not responding appropriately, rather than protectionist policies. Therefore, policy authorities worldwide should bear in mind the importance of fiscal and monetary policy management. Furthermore, attention should be paid to the fact that it is difficult to analyze the effects of protectionist moves on the economy. This is partly because trade structure characterized by the network of global supply chains is far more complex compared to that in the 1930s, the share of trade volume in the global economy has increased, and the amount of global capital flows has become massive. The Bank will thoroughly examine the consequences of recent developments in the trade friction and their potential effects on Japan's economy.

B. Outlook for Prices

As for the outlook for prices, the year-on-year rate of change in the CPI in Japan is likely to increase gradually with the economy continuing on an expanding trend. The outlook for prices is considered to be determined basically by two factors: the supply-demand balance of the economy as a whole and people's expectations for future price developments. Regarding the supply-demand balance, the tendency of demand exceeding supply is likely

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4 While traded goods were mainly primary products at the time of the Great Depression, the share of manufactured goods in trade is large at present. As the proportion of manufactured goods increases among traded goods, trade volume tends to fluctuate to a larger degree in response to changes in income. For details, see Douglas A. Irwin, *Trade Policy Disaster: Lessons from the 1930s* (Cambridge: MIT Press, 2012), 167n25.
to continue with the economy following an expanding trend. As actual wages and prices increase along with this development, people's inflation expectations are expected to rise gradually, and thus moderate inflation is more likely to be achieved.

There are various risk factors to the outlook for prices as well. For example, we cannot deny the possibility that actual wages and prices will not rise easily despite excess demand continuing going forward. Even when wages and prices rise, there is a possibility that such movements will be perceived as a temporary phenomenon and people's inflation expectations will not rise. Moreover, the scheduled consumption tax hike in October 2019 poses another risk for economic activity and prices.  

Households in Japan tend to respond sensitively to price rises, partly because they have not experienced inflation for a long time. Reflecting such behavior of households, firms have been cautious about raising prices of products. As the economy continues to improve, this cautious stance of firms and households is likely to dissipate gradually, although there is uncertainty as to when this change will occur. Such a situation may be due in part to a lack of public understanding regarding the reasons why economic expansion accompanying moderate inflation is desirable and of public confidence in the Bank's determination to achieve it. If this is the case, the Bank should never be complacent and continue making efforts to communicate better to the public. I would like to talk about this point hereafter, together with the discussion on monetary policy.

III. Monetary Policy

Let me now move on to monetary policy. The Bank has continued large-scale monetary easing by, for example, maintaining 10-year Japanese government bond (JGB) yields at extremely low levels of around zero percent through purchasing large amounts of JGBs in

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5 As shown in the Bank's Comprehensive Assessment released in September 2016, there are three reasons why the inflation rate did not reach the price stability target of 2 percent within two years as initially expected: the decline in crude oil prices, the slowdown in emerging economies, and the consumption tax hike. The Bank estimates that the net burden on households due to the scheduled consumption tax hike in October 2019 will be smaller than that at the time of the tax hike in April 2014. However, it is necessary to carefully examine the effects of the scheduled consumption tax hike on people's consumption behavior and inflation expectations.
the market. It also has committed to continuing with such monetary easing going forward. In what follows, I would like to talk about the Bank's basic thinking as to why it is continuing with monetary easing and what it aims to achieve.

A. Negative Effects of Deflation
Why is the Bank aiming at price stability? Needless to say, households and private firms are the main players in a market economy, but a market economy sometimes may not function well. Therefore, the government and public institutions would need to complement it properly. Price stability is one of the areas in which public institutions should be involved.6

The principle of the Bank's monetary policy is stipulated by the Bank of Japan Act. Article 2 prescribes that "currency and monetary control by the Bank of Japan shall be aimed at achieving price stability, thereby contributing to the sound development of the national economy." The ultimate objective is not price stability itself but the resultant sound development of the national economy, generally accompanied by improvements in employment and household income. Historically, the economy was negatively affected not only by rapid inflation, such as experienced after World War II and in the 1970s, but also serious deflation around the time of the Showa Depression in the prewar period and deflation that lasted for about 15 years since the late 1990s.

Although people tend to think price declines are favorable because goods can be purchased at a cheaper price, they actually give rise to significant negative effects in three respects. First, declines in prices refer not only to those of goods and services that you purchase, but also those of goods and services that your firm sells. If sales of your firm decrease, this reduces your salary and consequently the budget available for spending, or can lead to cutbacks in employment. As a result, economic activity as a whole will contract.

6 In the context of price stability, prices refer to the aggregated prices of goods and services in the economy as a whole, which differ from individual prices of goods and services. In the long run, prices on an aggregate basis are determined by the relationship between the total amount of goods and services transacted in the economy and money. That is, in the long run, prices will rise if money increases, and will decline if it decreases. In modern society, most money is in the form of bank deposits, which are created partly by bank lending, and its base is issued by the central bank.
Second, price declines bring about difficulties in conducting economic policies. In an economy where prices decline, tax revenue does not increase easily. Price declines also may be an obstacle to the conduct of monetary policy. When an economy is under downward pressure, it usually becomes necessary to reduce interest rates to support the economy. Theoretically and empirically, however, interest rate levels tend to decrease to around 0 percent when prices decline (Chart 7). Thus, room for monetary policy response becomes smaller if we rely only on the conventional policy of lowering interest rates, which would make economic depression more severe.

Third, when economic depression lasts for a long time amid price declines, there is a risk that the growth potential of the economy would be lowered and the behavior and mindset based on the assumption that prices do not rise will become entrenched in the society, as I mentioned earlier. In other economies, nominal GDP and nominal income increase steadily amid moderate inflation. From a global perspective, I have to say that the past situation for Japan's economy was quite exceptional, in that nominal GDP and nominal income peaked out and subsequently leveled off for a long time under prolonged deflation (Chart 8). Price declines may bring about significant negative effects on the economy, even if their pace is moderate or does not accelerate.

B. Price Stability Target of 2 Percent

On this basis, price stability needed for the sound development of the national economy involves avoiding not only rapid inflation but also deflation. Metaphorically speaking, this is like maintaining a comfortable room temperature. A room's temperature should not be too hot or cold. So, as for prices, should we aim at literally 0 percent inflation? In a situation where the inflation rate is around 0 percent, room for monetary policy response through interest rate control would be limited, as I mentioned earlier. Under such circumstances, there is a risk of economic stagnation and deflation becoming prolonged once downward pressure is exerted on the economy. Thus, one can draw the conclusion that the "appropriate level of temperature for the economy" -- in other words, the inflation rate at which central
banks should aim -- is not literally 0 percent but a sufficiently positive figure, which secures room for monetary policy response to avoid deflation.\(^7\)

In relation to the "appropriate level of temperature for the economy," an increasing number of central banks worldwide have adopted inflation targeting as a framework for monetary policy, and setting the target level at around 2 percent has become a global standard among advanced economies and regions (Chart 9).\(^8\) As financial markets and economies are closely linked internationally, aiming at 2 percent inflation when other economies do so has an important implication. For example, while it should be noted that the Bank's monetary policy does not target foreign exchange rates, the fact that Japan aims at achieving the same inflation rate as many other economies, including the United States and Europe, is likely to stabilize foreign exchange rates from a long-term perspective, and thereby contribute to establishing a business environment that enables firms to make decisions easily and continue with their activities without unnecessary anxiety.

Based on these considerations, the Bank has set 2 percent inflation as the price stability target and committed to achieving it. This is the Bank's commitment and a declaration to the general public. As long as this is ensured, the experience of the deflationary era will not be repeated. At present, although the inflation rate in Japan is improving steadily, it has remained at around 1 percent, and thus we are only halfway to achieving 2 percent inflation. In a case where downward pressure is exerted on the economy again, it may revert to deflation. The Bank will encourage a rise in the inflation rate to the level that is appropriate for the economy by continuing large-scale monetary easing with the aim of achieving 2

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\(^7\) Those who proposed inflation targeting at an early stage considered that the most convincing reason for aiming at a positive inflation rate was avoiding a risk of falling into deflation. For details, see Ben S. Bernanke et al., *Inflation Targeting: Lessons from the International Experience* (Princeton: Princeton University Press, 1999), 29-30.

\(^8\) Although it depends on the definition, approximately 40 central banks now adopt inflation targeting. For details, see José De Gregorio et al., "IMF Reform: The Unfinished Agenda," CEPR (2018): 12.
percent inflation and thereby maintaining economic improvement for a sufficiently long period.\(^9\)

In continuing with monetary easing, it is necessary to continuously examine not only the effectiveness on inflation but also the impact on the financial markets and system. This is expected to enhance the sustainability of the policy and consequently raise the certainty of achieving 2 percent inflation.\(^{10}\)

C. Communication to the General Public

In order to enhance policy effects, I think that it is important for the Bank to engage in information dissemination and communication so that as many people as possible would understand the state of the economy that the Bank aims to achieve, as well as its underlying thinking. The conventional monetary policy that we learned at school mainly focuses on raising or lowering interest rates, which was relatively easy to understand. However, in Japan since the late 1990s and in the United States and Europe since the Global Financial Crisis in the late 2000s, short-term interest rates have been close to 0 percent, which is an environment that cannot be dealt with only through conventional monetary policy. Under these circumstances, central banks actively adopted the so-called unconventional monetary policy. This produced extremely powerful effects during the course of the global economy moving out of the Global Financial Crisis. At the same time, however, monetary policy became highly complex and difficult to understand for some non-experts. Outside Japan,

\(^9\) There are various debates over why the target level of inflation should be 2 percent, or what would be the most desirable inflation rate. Recent studies increasingly suggest that the desirable inflation rate be positive in view of preventing a risk of falling into deflation, based on the experience of the Global Financial Crisis from 2008. However, the proposed specific figure ranges widely from a positive rate close to 0 percent to around 6 percent. Meanwhile, Seiji Adachi argues that, using the data for Japan's economy from 1983 through the second quarter of 2017, the inflation rate that would be achieved under certain conditions in a time of an inflationary regime is 1.94 percent in terms of the CPI inflation rate excluding fresh food and energy. For details, see Adachi Seiji, "2 pāsento no infure mokuhyō wa datō ka," Keiki to Saikuru, no. 64 (2017): 3-16.

\(^{10}\) The Bank has been making a wide variety of efforts including conducting on-site examinations and off-site monitoring of individual financial institutions, providing a wide range of information such as through the Financial System Report, and cooperating with relevant regulatory authorities in the development of financial regulations.
some appear to have joked that central banks' public statements can only be understood by those with a Ph.D. in economics.

It is true that the Bank's current policy is somewhat technical, and we are expected to communicate in detail to gain understanding from experts including market participants and overseas authorities. Nevertheless, it is important for central banks to reach out not only to experts but also households and firms, which play the main roles of and are driving forces for Japan's economy. Regarding households and firms, I am aware that it is important to reiterate the essence of the policy -- that is, what the Bank aims at and how it seeks to achieve this -- rather than the details that tend to be highly technical.

For example, according to a survey conducted by the Bank, many households think that their circumstances become worse off when prices rise (Chart 10). No one welcomes price rises when their own income does not increase. Thus, it may seem natural that households' tolerance of price rises would not increase easily, but wages generally grew at a higher pace than inflation and households' purchasing power rose in the past phase of moderate inflation (Chart 11). In order to change the cautious stance of households that tend to be reluctant to accept price rises, it also is important to explain this basic mechanism of the economy in a way that is easy to understand. In addition, the effects of monetary policy depend on economic conditions. The expected growth rate of Japan's economy is likely to rise as private firms actively undertake investment in capital and human resources as well as innovation, or as the government establishes a business environment that encourages such investment for the future or makes beneficial public spending, including that for education as well as for the promotion of science and technology, while securing confidence in fiscal sustainability. As the expected growth rate rises, monetary easing will more significantly boost the willingness of firms to invest and households to consume, thereby further ensuring the path toward achieving the price stability target of 2 percent. Thus, there are synergy effects between efforts by various economic entities and the Bank's monetary policy. With a view to sharing among various entities the significance of these effects, the

11 For a study that underlines the importance of influencing households' and firms' expectations, see, for example, Olivier Coibion et al., "Inflation Expectations as a Policy Tool?" *NBER Working Paper*, no. 24788 (2018).
Bank needs to communicate effectively to a wide range of people.

I suppose that those attending this meeting also experience situations where it is necessary to convey a message to residents and clients in plain language while engaging in complex day-to-day operations. The same applies to monetary policy. Taking account of this, I have explained today the essence of the Bank's thinking behind monetary policy.

**Conclusion**

Lastly, I would like to talk about the economy of Niigata Prefecture. The economy has continued to recover steadily. Exports and production have maintained their relatively high levels, mainly on the back of favorable external demand. Amid high levels of corporate profits, business fixed investment intended for enhancing capacity and saving labor has increased. With labor market conditions tightening, employee income has increased moderately and private consumption also has recovered moderately.

On the other hand, Niigata Prefecture is facing challenges such as population decline, labor shortage, and sluggish final demand. However, the prefecture's economy has some advantages in overcoming these challenges and thereby achieving economic growth.

For instance, there is an agglomeration of industries with high technological prowess in a wide range of fields such as metals, machinery, food, materials, and construction. In addition, the information and communications industry has started to make advancements, as partly evidenced by launches of new IT firms. As traditionally strong industries adjust to globalization and technological progress, and new industries such as the information and communications industry start up, the growth potential of the prefecture's economy is expected to heighten further.

Moreover, Niigata Prefecture is blessed with a varied culture and history, as well as abundant nature and food. This summer, I enjoyed an exhibition at the Tokyo National Museum entitled "JOMON: 10,000 Years of Prehistoric Art in Japan." I was overwhelmed by the sublime beauty of the national treasure from Niigata Prefecture -- a vessel with flame-like ornamentation from the Sasayama site in Tōkamachi city. The prefecture is also
famous for its sake (rice wine), and this owes to the entrepreneurial spirit that sought to diversify product lines and enhance their quality against the background of declining prices of rice in the Edo era that resulted from excess supply.\textsuperscript{12} Furthermore, while Koshihikari is now a byword for delicious rice, efforts were needed to overcome many difficulties to get to that point.\textsuperscript{13}

Another significant advantage is that the prefecture is close to the growing economies of northeast Asia. It has close historical relations with regions on the opposite shores, such as the Russian Far East, China, and the Korean Peninsula. With the traditions of trade via Kitamaebune, or northern-bound ships, Niigata Prefecture now has the potential as the largest foothold for international interaction along the Sea of Japan to capture demand from fast-growing Asian economies, both in terms of trade and tourism.

January 2019 marks the 150th anniversary since the Niigata port was opened to the world as a trade port ahead of many other ones. As I mentioned at the outset, people here in the Echigo and Sado regions historically have overcome challenges with their diligence, patience, and ingenuity. I would like to close by expressing my hope that you will be frontrunners in terms of overcoming deflation and vitalizing local economies while making the most of the prefecture's advantages.

Thank you very much for your attention.

\textsuperscript{12} According to a history book, sake breweries in Niigata Prefecture in the Edo era tried to grasp the taste of consumers by inviting specialists based long distances away. Specifically, Buzarem from the Uonuma Shiozawa region, who started a sake brewery in the late 1600s, and Kaemon from the same region invited tōji -- sake brewers -- from Kyoto and Tokyo, respectively. For details, see Tanaka Keiichi et al., Niigata-ken no rekishi, 2nd ed. (Tokyo: Yamakawa Shuppansha Ltd., 2009), 166-67.

\textsuperscript{13} Koshihikari originally was developed at an agricultural experiment station in Niigata Prefecture during wartime in 1944, when quantity generally was prioritized over taste, and its breeding business subsequently was suspended. After the launch of the Koshihikari brand, the Agricultural Cooperative Association of Niigata Prefecture spared no marketing efforts to enhance its brand value ahead of the competitors. For details, see Sakai Yoshiaki, Koshihikari monogatari: nippon-ichi umai kome no tanjō (Tokyo: Chuokoron-Shinsha, Inc., 1997).
Japan's Economy and Monetary Policy

*Speech at a Meeting with Business Leaders in Niigata*

December 5, 2018

Masazumi Wakatabe

*Deputy Governor of the Bank of Japan*

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**Chart 1**

*Japan's Economy*

<table>
<thead>
<tr>
<th>Index of Business Conditions</th>
<th>Length of Economic Recovery Period</th>
</tr>
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<tbody>
<tr>
<td>CY 2010=100</td>
<td></td>
</tr>
<tr>
<td>130</td>
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<table>
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<tr>
<th>Rank</th>
<th>Period</th>
<th>Length</th>
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<tr>
<td>1</td>
<td>February 2002-February 2008</td>
<td>73 months</td>
</tr>
<tr>
<td>2</td>
<td>December 2012- (as of September 2018)</td>
<td>70 months</td>
</tr>
<tr>
<td>3</td>
<td>November 1965-July 1970 (<em>Izanagi Boom</em>)</td>
<td>57 months</td>
</tr>
<tr>
<td>4</td>
<td>December 1986-February 1991 (<em>Bubble Boom</em>)</td>
<td>51 months</td>
</tr>
<tr>
<td>5</td>
<td>November 1993-May 1997</td>
<td>43 months</td>
</tr>
</tbody>
</table>

Notes: 1. The left chart shows the coincident index. Shaded areas indicate recession periods.
2. Business cycle peaks and troughs are determined in light of discussions by experts after economic data accumulation.
Sources: Cabinet Office, etc.
Widespread Economic Recovery I:
Corporate Sector – Improvement of Small Enterprises –

**Business Conditions by Enterprise Size (Tankan)**

![Chart 2](chart2.jpg)

Notes: 1. Figures in the left chart are based on Tankan. There is a discontinuity in the data in December 2003 due to a change in the survey framework.
2. Figures in the right chart are based on current profits of the Financial Statements Statistics of Corporations by Industry, Quarterly. "Large enterprises" are enterprises with capital of 1 billion yen or more and "small enterprises, etc." are the rest. Excluding "finance and insurance."
Sources: Ministry of Finance; Bank of Japan.

Widespread Economic Recovery II: Labor Market (1)

**Active Job Openings-to-Applicants Ratio (by Prefecture)**

![Chart 3](chart3.jpg)

Note: Seasonally adjusted figures for unemployment rates of all prefectures are based on BOJ staff estimations.
Sources: Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications.
Widespread Economic Recovery III: Labor Market (2)

**Youth Unemployment Rate**

- Unemployment rate (total)
- Unemployment rate (aged 15-24)

**Unemployment Rate (Long- and Short-Term)**

- Short-term unemployment rate
- Long-term unemployment rate

Note: In the right chart, long- and short-term unemployment rates are the ratios to labor force of those who have been unemployed for one year or over and less than one year, respectively. Figures for 2018 are January-September averages.

Source: Ministry of Internal Affairs and Communications.

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Widespread Economic Recovery IV: Labor Market (3)

**Population Aged 15-64 and Number of Employed Persons**

**Number of Employed Persons**

- Aged 65 or over
- Female aged 15-64
- Male aged 15-64
- Total

Source: Ministry of Internal Affairs and Communications.
Chart 6: Developments in Prices

Consumer Prices

Note: The CPI figures are adjusted for changes in the consumption tax rate. Figures for 2018/Q4 are those for October.
Sources: Ministry of Internal Affairs and Communications; Bank of Japan.

Chart 7: Inflation Rates and Interest Rate Levels

Note: Figures for the inflation rate and the overnight interest rate are averages from 2000 to 2017.
Source: OECD.
Economic Growth of Major Economies

Chart 8

Nominal GDP Growth

Real GDP Growth

Source: IMF.

Price Stability Target

Chart 9

Number of Countries Adopting Inflation Targeting

Price Stability in Advanced Economies

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Definition</th>
<th>Indicator</th>
<th>Numerical expression (y/y chg.)</th>
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</thead>
<tbody>
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<td>United States (FRB)</td>
<td>Longer-run goal</td>
<td>PCE deflator</td>
<td>2%</td>
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<tr>
<td>Euro area (ECB)</td>
<td>Quantitative definition</td>
<td>HICP</td>
<td>Below, but close to, 2%</td>
</tr>
<tr>
<td>United Kingdom (BOE)</td>
<td>Target</td>
<td>CPI</td>
<td>2%</td>
</tr>
<tr>
<td>Japan (BOJ)</td>
<td>Price stability target</td>
<td>CPI</td>
<td>2%</td>
</tr>
</tbody>
</table>

Note: PCE is personal consumption expenditures; HICP and CPI are consumer price indexes.
Sources: Gregorio, Eichengreen, Ito, and Wyplosz (2018); Bank of Japan; Federal Reserve Board; European Central Bank; Bank of England.
Households' Views

Comments on the Price Rise

- "Rather favorable" (4.6%)
- "Difficult to say" (16.2%)
- "Rather unfavorable" (78.4%)

Comments on the Price Decline

- "Rather favorable" (43.3%)
- "Difficult to say" (20.0%)
- "Rather unfavorable" (26.7%)

Recognition of the Price Stability Target of 2 Percent

- "Know about it" (30.6%)
- "Have read or heard of it, but do not know much about it" (37.5%)
- "Have never heard of it" (31.4%)


Prices and Wages

Japan

United States

Note: Figures for the 2010s are averages from 2010 to 2017. Consumer prices are CPI (all items, adjusted for changes in the consumption tax rate) for Japan, and PCE deflator (all items) for the United States.

Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare; Bank of Japan; Haver.