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# Japan's Economy: Monthly Review

## *Why Reforms in Work Style are Important for Japan's Economic Revival*

**Correction of long work hours must be accompanied by improvement in productivity**

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### Summary

- While it is of course important to consider the external threat of Trump's policies to Japan's economy, we must also take a good look at domestic issues, including the structural issue of the long-term slowdown of Japan's potential growth rate which is also affecting the domestic economy.
- Japan is now in an era of population decline which brings with it the question of how to increase the latent growth rate. To do so, the important issue is that women and the elderly must be encouraged to work through labor reform, or more precisely reforms in work style.
- Japan is still very much behind when compared to the progress which has been made in Europe where labor participation by women has been taking place quite actively. There is still a lot of room in Japan for more labor participation by women. If all barriers to women working, such as child-rearing and care for the elderly are removed, we estimate that more than one million women would then be able to enter the work force.

# 1. Why Reforms in Work Style are Important for Japan's Economic Revival

## 1.1 The problem of long-term decline in Japan's potential growth rate

### *The Japanese economy's real potential is less than 1%*

While it is extremely important to prepare for external threats to Japan's economy, we must also avoid being overly captivated by overseas factors and firmly face internal, structural problems, such as the long-term decline in Japan's potential growth rate. After standard revisions to Japan's December 2016 GDP and then application of the new international standard (2008SNA), Japan's GDP was revised upwards. Then the Cabinet Office announced that it had revised the level of Japan's most recent potential growth rate upwards from its estimate of just above 0% (0.4%) to 0.8%.

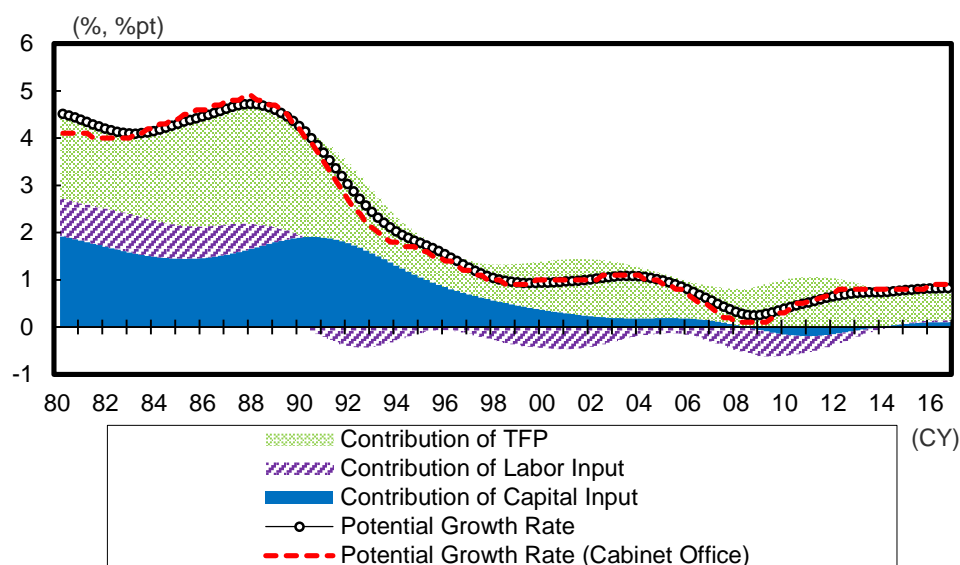
The potential growth rate, which is the figure that expresses Japan's true economic strength, has remained below 1% for some time. Japan has been unable to shake this low long-term growth rate. In order to revive Japan's economy in the future and achieve sustainable growth, it is essential to increase the currently sagging potential growth rate. In this report, we consider the issue of work style reform, one of the essential pillars of Abenomics, from the viewpoint of improving the potential growth rate. We approach this subject from the direction of the size of Japan's workforce as well as the question of productivity.

Chart 1 shows DIR's calculation of potential growth rate over time using a similar method as the Cabinet Office. Japan's potential growth rate declined rapidly after the economic bubble of the 1980s collapsed, and reached the level of around 1% by the late 1990s. When we perform a factor analysis on potential growth rate, of particular note is the fact that the contribution of labor input to growth rate falls into the negative numbers once into the 1990s. Behind this development lie two phenomena – the introduction of the two-day weekend which brought a decline in man hours and the decline in the working age population.

Since the end of 2014, the problem of negative contribution of labor input has been resolved thanks to progress in labor participation accompanying economic recovery. However, it is almost certain that the contribution of labor input to Japan's growth will fall into the negative numbers again at some point in the future because of population decline. Therefore in order to improve the potential growth rate, using reforms in work style as a means of encouraging women and the elderly to work has become an urgent question.

Japan's Potential Growth Rate (q/q Annualized)

Chart 1



Source: Cabinet Office, METI, Ministry of Internal Affairs and Communications, and Ministry of Health, Labour and Welfare; compiled by DIR.  
 Note: Estimated values for potential growth rate can differ due to differences in definitions and estimation methods. Hence results must be taken with a certain grain of salt.

### *How changes in labor input and productivity can influence Japan's potential GDP*

In considering the relationship between potential growth rate and work style reform, it is important to look at the qualitative issues and not limit ourselves to the quantitative – in other words we must consider improvement in productivity as well as labor input. Hypothetically speaking, if we were to focus only on increasing the labor participation rate of women, productivity could still decline, and if this happened, it would not bring about an improvement in the potential growth rate. Concretely speaking, there are two factors influencing potential growth rate – labor input and total factor productivity (TFP). Chart 2 presents our estimates of the influence of these two factors on Japan's potential GDP.

First, we have to be aware that the decline in Japan's working age population is a structural problem which brings downward pressure on labor input. As long as the source of labor supply continues to decline, once the initial expansion of labor participation wears off, labor input will again bring a negative contribution to potential GDP because of the decline in the number of employees. If labor input were to decline by -0.4%, potential GDP would be forced downwards by around an estimated -0.3%. However, since the middle of 2013, the number of employees has been in a growth trend. Hence by the end of 2014 the problem of negative contribution to labor input was resolved. Hence it is thought that downward pressure on labor input due to the decline in working age population can be offset by virtue of encouraging more women and elderly to work through the implementation of work style reforms.

On the other hand, the correction of long work hours, which is an important part of work style reform, would also directly result in causing a decline in labor input. Looking now at past years, we can see that when labor input shifted into negative contribution to potential GDP after entering the 1990s, the decline in work hours had also become a major factor contributing negatively to the growth rate. However, if labor participation is increased, total work hours would also increase the same amount in the macro sense, and the influence of correction of long work hours can thereby be mitigated. Additionally, as is made apparent in Chart 2, even if labor input declines a certain amount, potential GDP could actually be pushed upwards overall by efforts to increase productivity.

**Influence on Japan's Potential GDP (%)**

**Chart 2**

		← Decrease      Labor Input      Increase →						
		-0.6%	-0.4%	-0.2%	0.0%	0.2%	0.4%	0.6%
↑ Worsens	-0.3%	-0.7	-0.6	-0.4	-0.3	-0.2	0.0	0.1
	-0.2%	-0.6	-0.5	-0.3	-0.2	-0.1	0.1	0.2
	-0.1%	-0.5	-0.4	-0.2	-0.1	0.0	0.2	0.3
TFP Improves ↓	0.0%	-0.4	-0.3	-0.1	0.0	0.1	0.3	0.4
	0.1%	-0.3	-0.2	0.0	0.1	0.2	0.4	0.5
	0.2%	-0.2	-0.1	0.1	0.2	0.3	0.5	0.6
	0.3%	-0.1	0.0	0.2	0.3	0.4	0.6	0.7

Source: Cabinet Office, METI, Ministry of Internal Affairs and Communications, and Ministry of Health, Labour and Welfare; compiled by DIR.

## 1.2 Three important points to consider for work style reform

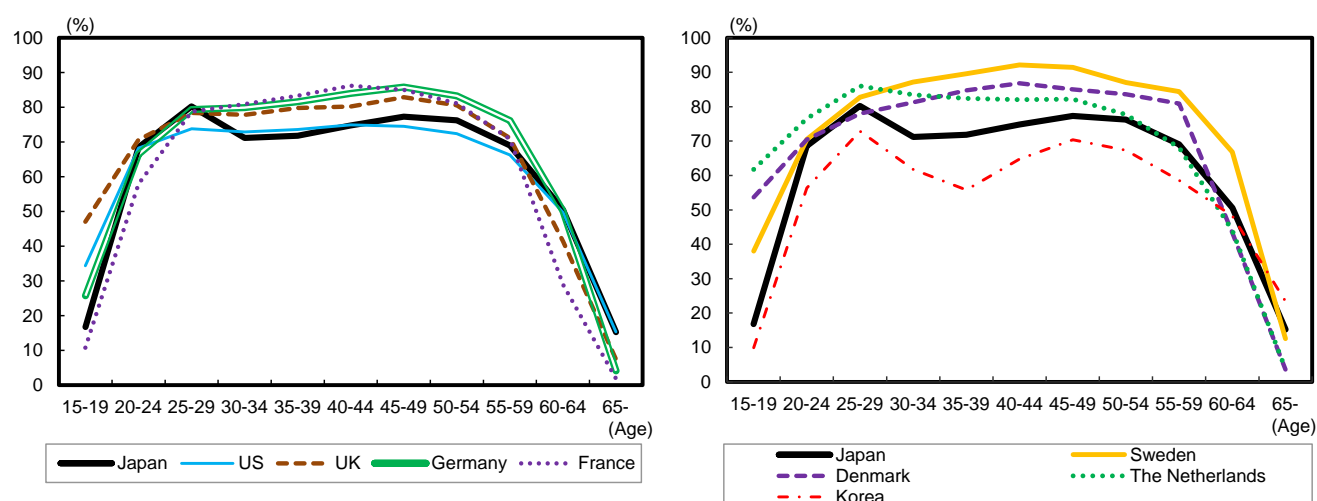
### *(1) Potential increase in employment resulting from taking action on issues of child-bearing, child-rearing, caring for elderly parents, and nursing is over one million*

Next we consider one of the important points associated with labor input. That is, the question of to what extent can the number of employees be increased by virtue of increasing labor force participation on the part of women.

Here we take a look at the current status of labor force participation on the part of women in Japan through an international comparison of the labor force participation rate of women by age group (Chart 3). The social advancement of women has progressed in Japan over the long-term, and as a result, the labor force participation rate on the part of women exceeded that of the US as of the year 2015. For this reason there is often the tendency now to assume that there is little room left to expand women's labor force participation further. However, in comparison with member countries of the EU, where labor force participation of women has progressed aggressively, Japan still has something to be desired. According to this comparison there is still room for growth in women's labor force participation in Japan.

In considering what, exactly, the specific margin of growth in labor force participation might be, we need to find the number of women wanting to work by reason for seeking employment (Chart 4). We know that as of 2015, the number of women who want to work but who are not seeking employment because they are having a baby or currently involved in child-rearing totals 950,000, while those not seeking employment because they are caring for elderly parents or providing nursing care at home to a family member total 180,000. What this tells us is that if barriers to employment associated with caring for the elderly and child-rearing were completely removed, over one million women would become employed, and the labor force participation rate curve would experience a major shift to the upper side of the graph. Complete removal of barriers is considered to be difficult, but it seems possible that something could be done which would increase the number of women employed by some hundreds of thousands.

**International Comparison of Women's Labor Force Participation Rate by Age Group (2015) Chart 3**

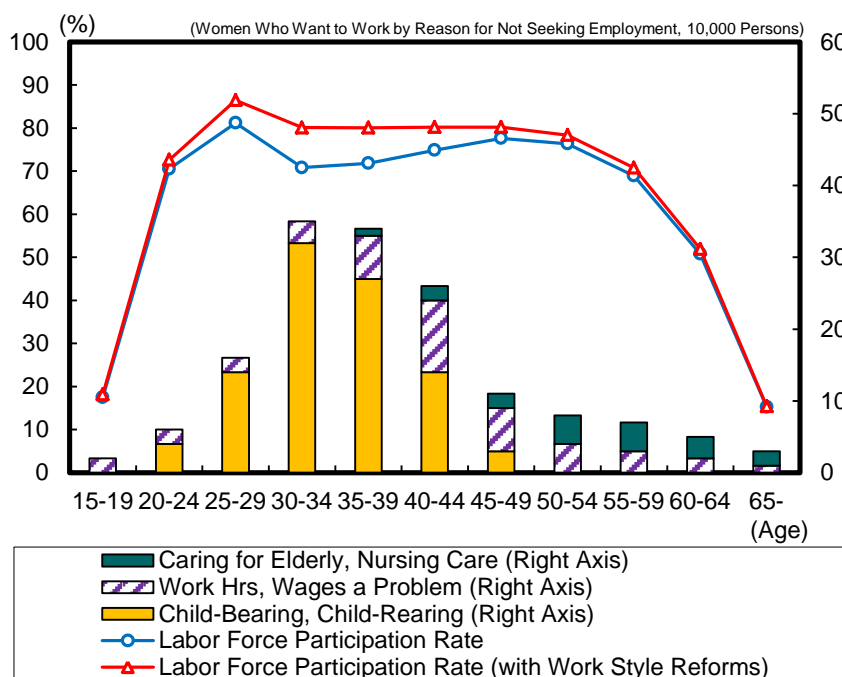


Source: OECD; compiled by DIR.

Source: OECD; compiled by DIR.

## Women's Labor Force Participation Rate by Age Group and Women Who Want to Work by Reason for Not Seeking Employment

Chart 4



Source: Ministry of Internal Affairs and Communications; compiled by DIR.

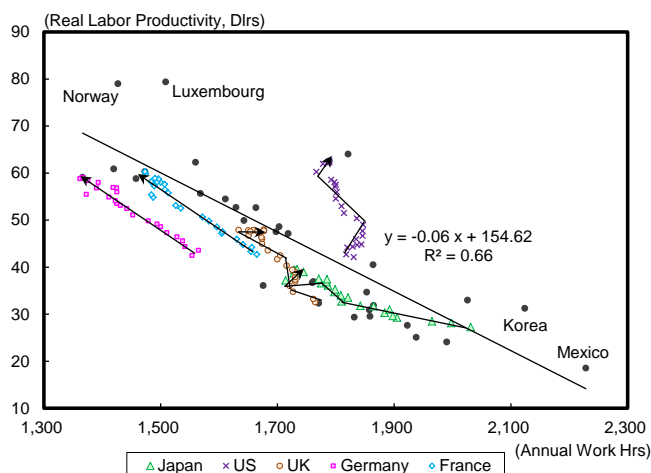
### ***(2) Correction of long work hours must be accompanied by improvement in productivity***

As was mentioned previously, even if labor input declines a certain amount due to correction of long work hours, potential GDP can actually be pushed upwards overall by efforts to increase productivity.

In an international comparison using data from the OECD, Chart 5 reveals how major nations have cut annual work hours while at the same time increasing real labor productivity. Moreover, those countries which have cut back annual work hours the most tend to have the highest growth in multifactor productivity (MFP) (Chart 6). This may be due to the increase in labor equipment ratio achieved through increased capital expenditure, and improvements in operational efficiency due to investments in information and communication technology (ICT). As Japan works toward the correction of long work hours in the future, it will be most desirable to make efforts towards improvements in productivity at the same time, making use of robots and artificial intelligence.

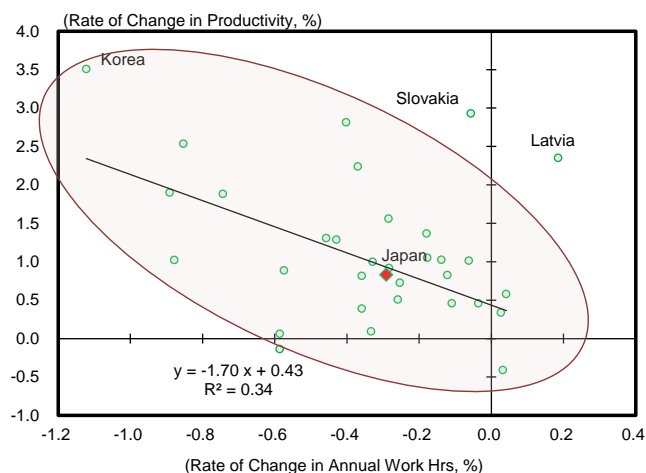
Meanwhile, relaxation of labor regulations will be yet another challenge in the future as Japan works towards improved efficiency. Looking at the relationship between the labor regulation indicators of the OECD member nations (OCED Indicators on Employment Protection) and labor productivity, we see that countries with the loosest regulations exhibit the highest growth in productivity (Chart 7). In other words, Japan can improve its labor productivity even more by easing the “bedrock regulations” found in its traditional employment practices.

**OECD Country Work Hours and Real Labor Productivity** Chart 5



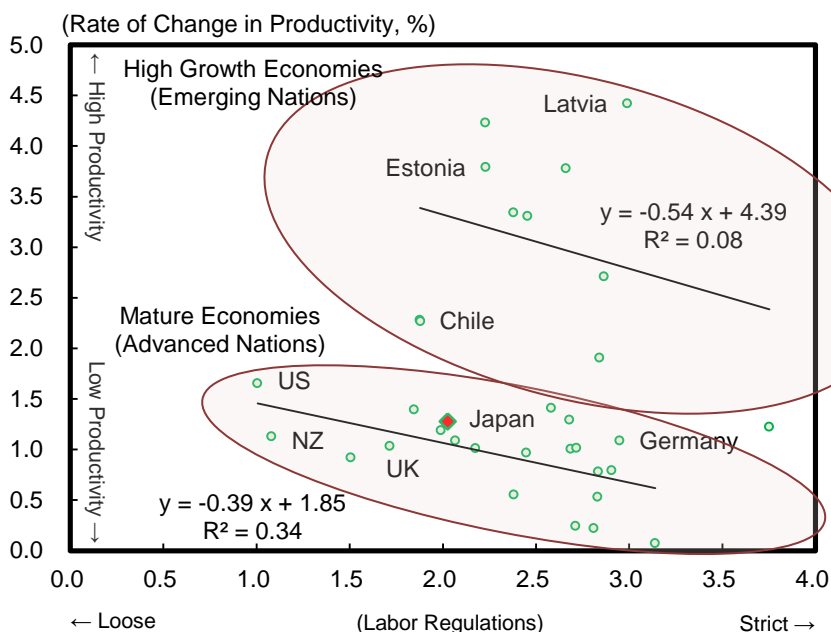
Source: OECD; compiled by DIR.  
 Notes: 1) Data on OECD countries is from the year 2014, while data from Germany covers years 1991-2014, and other G5 countries 1990-2014.  
 2) Real labor productivity = real GDP (PPP basis) ÷ (workers x work hours).

**OECD Country Work Hours and Productivity** Chart 6



Source: OECD; compiled by DIR.  
 Notes: 1) Figures for productivity use OECD data on multifactor productivity (MFP). MFP is the same concept as total factor productivity (TFP).  
 2) Figures for annual work hours and productivity denote rate of change (annualized) for years 2005-2014.  
 3) Estimation formula excludes Slovakia and Latvia.

**Labor Regulations and Productivity in OECD Countries** Chart 7



Source: OECD; compiled by DIR.  
 Notes: 1) Data on labor regulations utilizes OECD Indicators on Employment Protection (0-6).  
 2) Figures for productivity use OECD data on multifactor productivity (MFP). MFP is the same concept as total factor productivity (TFP).  
 3) MFP shows rate of change (annualized) for years 2005-2013. Figures for labor regulations are average values during same period.

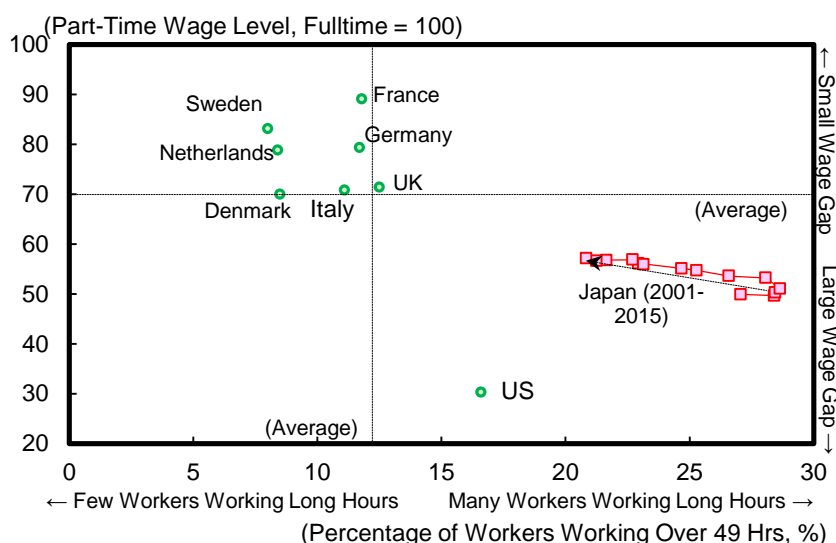
**(3) Work style reform requires working on a Japanese version of “equal pay for equal work”**

There are currently multiple issues surrounding Japan’s labor market which must be dealt with, and these are not limited to the question of increasing labor force participation on the part of women, or the correction of long work hours. Another major challenge is resolving wage disparity between part-time and fulltime workers. Part of this problem is that increasing the number of low-paid part-time workers does not increase household income much, and therefore does not lead to much of an increase in consumption. Looking at trends in major advanced nations we can see that wages for part-timers in Japan as compared to fulltime workers are clearly low in an international comparison. There may also

be cases where this gap exists even where there is no difference in the type of work which is performed (Chart 8).

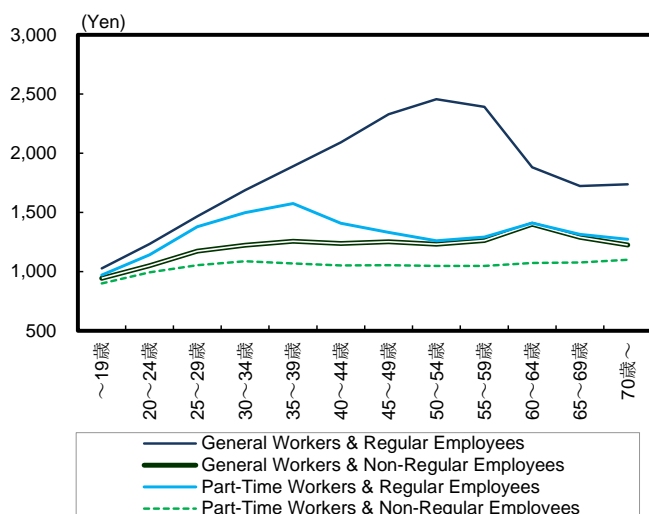
It is therefore important to develop a Japanese version of the “equal pay for equal work” principle after having thoroughly studied the employment practices of various countries and their differences, and to alleviate the problem of disparity between part-time and fulltime workers. Meanwhile, it is also necessary to provide non-regular and part-time employees with knowledge and technical training through the support of job training and other programs, and to work towards increasing labor productivity. Wages of non-regular employees do not grow much compared to years of service. One of the reasons for this disparity is that non-regular employees, especially those working for small and medium-size enterprises, face the structural problem of scarce opportunity to receive job training or take part in human resources development programs (Charts 9 & 10).

**Part-Time Wage Levels and Ratio of Workers Putting in Long Work Hours** Chart 8



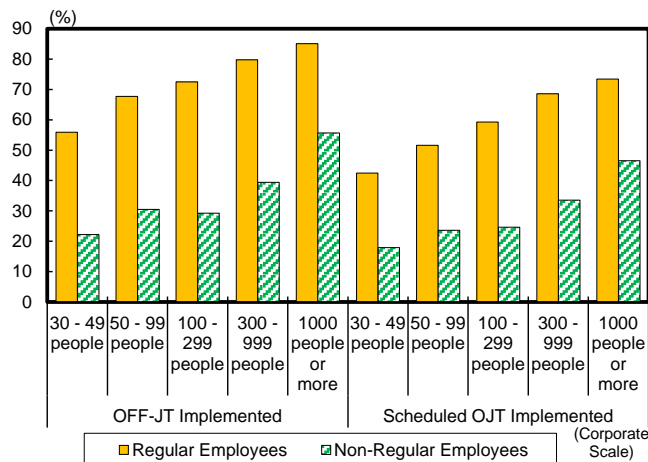
Source: Japan Institute for Labour Policy and Training; compiled by DIR.  
 Note: Figures for US and UK from 2014 data, figures for Japan from 2001-2015, all others from 2010.

**Hourly Wage by Type of Employment of Regular and Part-Time Workers (2015)** Chart 9



Source: Ministry of Health, Labour and Welfare; compiled by DIR.  
 Note: Hourly wage per worker calculated as follows: Regular base wage ÷ regular work hours.

**Implementation Status of Job Training (FY2015 Survey)** Chart 10



Source: Ministry of Health, Labour and Welfare; compiled by DIR.

## Economic Indicators and Interest Rates

Chart 11

Indicator	2016	2017				2018	FY15	FY16	FY17	FY18
	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar				
	Actual	DIR estimates					Actual	DIR estimates		
<b>Real GDP</b>										
Q/q %, annualized	1.2	2.8	1.2	0.9	1.3	0.9				
Y/y %	1.6	1.9	1.6	1.5	1.5	1.1	1.3	1.4	1.4	1.1
<b>Current account balance</b>										
SAAR (Y tril)	20.9	20.2	19.1	19.1	19.7	20.0	18.0	20.3	19.6	20.8
<b>Unemployment rate (%)</b>										
	3.1	3.0	3.0	3.0	3.0	3.0	3.3	3.1	3.0	3.0
<b>CPI (excl. fresh foods; 2015 prices; y/y %)</b>										
	-0.3	0.3	0.6	1.0	1.0	0.8	-0.0	-0.2	0.9	0.7
<b>10-year JGB yield</b>										
(period average; %)	0.00	0.07	0.05	0.05	0.05	0.05	0.26	-0.05	0.05	0.10

Source: Compiled by DIR.

Note: Estimates (excl. 10-year JGB yield) taken from DIR's *Japan's Economic Outlook No.192 Update (Summary)*.