

22 Jun 2017 (No. of pages: 13)

Japanese report: 21 Jun 2017

Japan's Economy: Monthly Outlook (Jun 2017)

Could this be the countdown to wage inflation? How will the Fed's exit strategy influence the global economy?

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Summary

- In light of the 2nd preliminary Jan-Mar 2017 GDP release (Cabinet Office) we have revised our economic growth outlook. We now forecast real GDP growth of +1.5% in comparison with the previous year for FY17 (+1.5% in the previous forecast), and +1.1% in comparison with the previous year for FY18 (+1.1% in the previous forecast). There is no change in our estimates.
- We expect Japan's economy to slow gradually after accelerated growth throughout FY2017, supported by (1) favorable overseas demand, and (2) inventory investment. We expect Japan's economy to then move toward balanced growth in FY2018 driven equally by domestic and overseas demand thanks to (1) genuine improvement in the employment environment, and (2) investment in improving productivity.
- Japan's labor market is now near the saturation point including for regular employees. The labor market is tight since the working age population is declining and there is little room for the labor participation rate to grow. The countdown to wage inflation has begun, and it is very likely that this will lead in turn to an expansion in household consumption, and investment in means of dealing with the shortage of manpower, including labor-saving and rationalization, research & development, and mergers & acquisitions.
- However, caution is required regarding overseas demand. In the US, the Fed has already implemented multiple interest rate hikes, and it has announced that reduction of the balance sheet will begin within the year. This is expected to bring downward pressure on not only the US economy, but emerging nations as well. According to DIR simulation, the US exit strategy is expected to influence global economic growth as follows: -0.04% in 2017, -0.16% in 2018, and -0.31% in 2019.

In light of the 2nd preliminary Jan-Mar 2017 GDP release (Cabinet Office) we have revised our economic growth outlook. We now forecast real GDP growth of +1.5% in comparison with the previous year for FY17 (+1.5% in the previous forecast), and +1.1% in comparison with the previous year for FY18 (+1.1% in the previous forecast). There is no change in our estimates. We expect Japan's economy to slow gradually after accelerated growth throughout FY2017, supported by (1) favorable overseas demand, and (2) inventory investment. We expect Japan's economy to then move toward balanced growth in FY2018 driven equally by domestic and overseas demand thanks to (1) genuine improvement in the employment environment, and (2) investment in improving productivity.

We expect Japan's economy to continue in a moderate expansion phase. Domestic demand is expected to maintain favorable performance despite ups and downs, while overseas demand is expected to expand due to recovery in the world economy, providing major support for Japan's economic growth. However, downside risk remains for overseas demand requiring caution due to US trade policy and rising geopolitical risk. Meanwhile, we also urge caution regarding rising interest rates accompanying the slowdown of the US economy, and the problem of capital outflows from the emerging nations.

Looking at individual demand components, personal consumption is expected to continue in a moderate expansion phase. The supply of labor remains tight, and this should provide underlying support for personal consumption through growth in employee compensation. Housing investment is expected to gradually slow down. Interest on housing loans remains low, and therefore should provide continued underlying support. However, housing starts, which had rapidly expanded with the expectation that there would be a rush to purchase homes before the additional increase in consumption tax originally planned for April 2017, are expected to decrease in the future, especially for condominiums in urban areas, and housing investment is also expected to begin declining after that point.

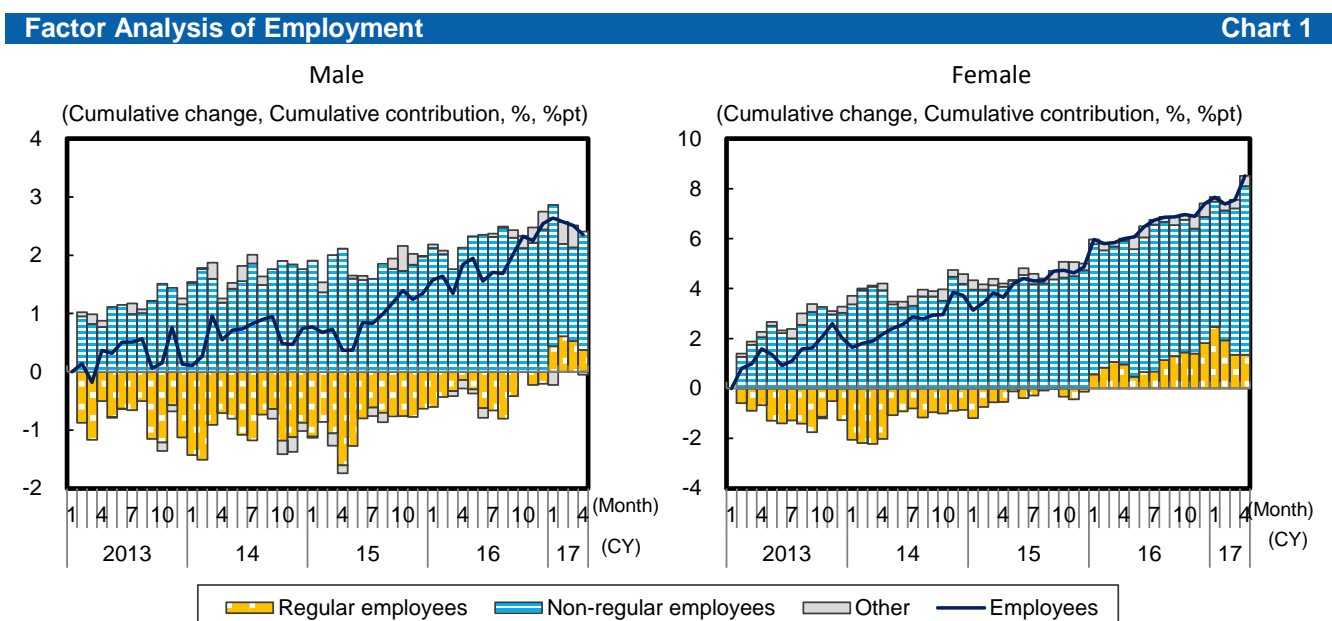
Capex is expected to see moderate growth. Operating rates in the manufacturing sector have been on the rise since the latter part of last year due to the expansion of exports thanks to the recovery in the world economy. Capex has continued to register moderate growth over the past several years, so investment in equipment and facilities is not exactly at a low level. However, the extent to which it may be topped off is limited at this point. On the other hand, research & development which is in growth phase, is expected to continue pushing up overall capex figures in the future. Meanwhile, investment in labor-saving and rationalization due to the continuing labor shortage is expected to continue its growth trend centering on the non-manufacturing industries. As for public investment, we expect a gradual to accompany implementation of the government's second and third supplementary budgets.

As for exports, with overseas economies continuing moderate growth, we can expect exports to maintain a firm undertone. Exports to the US appear to be about to peak out, while exports to the EU and Asia are maintaining a firm undertone. Exports of construction equipment and electronic parts to China are expected to maintain favorable orders. Meanwhile, exports to the EU are also expected to maintain a steady undertone as its economic cycle has not reached the depth of maturity seen in other regions. However, caution is required regarding overseas demand due to possible downside risk. It is uncertain whether China's economy can maintain its recent favorability beyond the meeting of the National Congress of the Communist Party. And as for the US, the Fed has already implemented multiple interest rate hikes, and it has announced that it will carry out asset reduction within the year. This is expected to bring downward pressure on not only the US economy, but at the emerging nations as well.

1. Countdown to Full-Fledged Wage Inflation

Japan's manpower shortage is getting serious. The tight labor market is not a temporary cyclical factor brought on by an improved economy. It is a structural factor caused by Japan's declining working age population accompanying its low birthrate and aging population. Therefore, the problem of manpower shortage is expected to continue to grow even more serious in the future. As a result, it is likely that wages will see full-fledged growth in the future. Over the past four years, Japan's economic growth has continued to exceed its potential growth rate, while at the same time corporate earnings have expanded to reach the highest levels recorded in the past, but hourly wages of regular employees have remained stagnant. On the other hand, part-time workers have seen improvements in hourly wage and employment. Behind this lies the fact that corporations have been cautious regarding the expansion of regular employment due to the strict regulations governing dismissal under Japan's unique lifetime employment system. Moreover, the hourly wages of part-timers have also been lower than regular employees in the past.

But the tide has begun to change. Chart 1 suggests that since around the year 2016, non-regular employment has stopped growing, and instead, growth in regular employment has accelerated. One of the reasons behind this change is that the hourly wages of non-regular employees are no longer that much cheaper than regular employees. However, more importantly, this is one of the symptoms of Japan's having entered the era of chronic shortages in manpower. Over the past four years, Japan's working age population has declined by nearly four million, due to its low birthrate and aging population. Even so, the working age population has actually grown of late. The reason is that the employment rate has recorded major growth centering on women and the elderly. However, it would be difficult to expect major growth in the labor participation rate in the future. This is because the distinctive M curve associated with women's labor participation rate has disappeared after years of growth in women's employment, and has now reached about the same level as that seen in the US. We will have to accept that there is not much room left for further growth in women's labor participation rate. In conclusion, the effective opening-to-application ratio for part-timers has reached an unprecedented level. Under these circumstances it has become difficult to find part-time workers, and hence corporations have begun, somewhat tentatively at first, to increase the number of regular employees. As corporations become more aggressive in their search for hires that will become regular employees, the effective opening-to-application ratio for regular employees also grows, having recently hit a historic high of 0.97x. If growth continues at the current pace, it would not be surprising if the figure exceeds 1x by some time during CY2017. Put in another way, these developments may indicate that the countdown to full-fledged wage inflation is already underway.



Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Note: Seasonal adjustment performed by DIR.

Of course, simple wage inflation becomes none other than a factor squeezing profit margins for labor-intensive industries such as retail trade, transport, construction, and services. Meanwhile, from a macro perspective, wage inflation can cause the scope of business of Japanese corporations to shrink, as well as lead to a hollowing out effect. It is a factor which can only lead to economic stagnation for Japan.

Chart 2 is a factor analysis indicating what is behind the fact that growth in wages is sluggish in Japan compared to the other advanced nations. Results indicate that labor productivity and price pass-through rate compare poorly with other major economies. In order for Japan's economy and corporate earnings to maintain balanced growth, these two components must improve in tandem with growth in wages.

As for the price pass-through rate, it is possible that this has been kept low over the years by groups of corporations dealing with excessive competition in the domestic market, and where mergers & acquisitions did not occur. In recent years cash surplus created by improvements in corporate earnings and monetary easing has encouraged progress in mergers & acquisitions and research & development, and in this context, the question of whether the price pass-through rate can be strengthened through these activities may become an important issue in the future.

On the other hand, the last time improvement in labor productivity was behind in Japan was at the end of the 1990s after having come through a major financial crisis. At that time capex spending was insufficient and computerization was still behind, and these two factors were major contributors to the problem. However, looked at in another way, this also means that Japan still had plenty growth potential. It is possible that capital expenditure focused on investment in labor-saving devices may continue to expand for quite some time.

Factor Analysis of Real Hourly Wages				Chart 2		
(Average Growth Rate from 2000 to 2009, %)				Japan	US	Germany
Real Hourly Wages				▲ 0.5	1.4	0.2
① Productivity				0.7	2.0	1.2
Real GDP				0.5	1.8	0.9
Contribution of hours worked (% pt)				▲ 0.4	▲ 0.2	▲ 0.3
Contribution of labour composition change (% pt)				0.3	0.3	0.1
Contribution of Fixed Capital Formation				0.5	1.1	0.8
Contribution of IT Investment				0.3	-	0.3
Contribution of Non-IT Investment				0.3	-	0.5
TFP Contribution				0.1	0.3	0.3
Total Hours Worked				0.2	0.2	0.3
Number of Employees				▲ 0.3	▲ 0.1	▲ 0.3
Hours Worked				0.5	0.3	0.7
② GDP Deflator/CPI				▲ 1.0	▲ 0.3	▲ 0.7
GDP Deflator				▲ 1.2	2.2	0.9
Terms of Trade Factor				▲ 0.3	▲ 0.0	0.0
Domestic Demand Deflator Factor				▲ 0.8	2.3	1.0
Import Deflator Factor				▲ 0.0	▲ 0.1	0.0
Others				▲ 0.0	▲ 0.0	▲ 0.0
CPI				0.3	▲ 2.5	▲ 1.6
③ Labor's Share				▲ 0.3	▲ 0.2	▲ 0.3
Nominal Employee Compensation				▲ 1.0	3.8	1.4
Nominal GDP				0.7	▲ 4.0	▲ 1.7

Real hourly wages, labor productivity, and labor's share defined as follows:
 Real hourly wages = nominal employee compensation / (no. of employees x hours worked) / CPI
 Labor productivity = real GDP / (no. of employees x hours worked)
 Labor's share = nominal employee compensation / nominal GDP
 Thus, real hourly wages are expressed as:
 Real hourly wages = labor productivity x GDP deflator / CPI x labor's share.
 Then, % change ($\Delta \ln$) is expressed as:
 $\Delta \ln(\text{real hourly wages}) = \Delta \ln(\text{labor productivity}) + \Delta \ln(\text{GDP deflator} / \text{CPI}) + \Delta \ln(\text{labor's share})$
 $\Delta \ln(\text{labor productivity}) = \Delta \ln(\text{real GDP}) - \Delta \ln(\text{no. of employees}) - \Delta \ln(\text{hours worked})$
 $\Delta \ln(\text{labor's share}) = \Delta \ln(\text{nominal employee compensation}) - \Delta \ln(\text{nominal GDP})$

Source: Cabinet Office, US Bureau of Economic Analysis, Bundesbank, EU KLEMS; compiled by DIR.

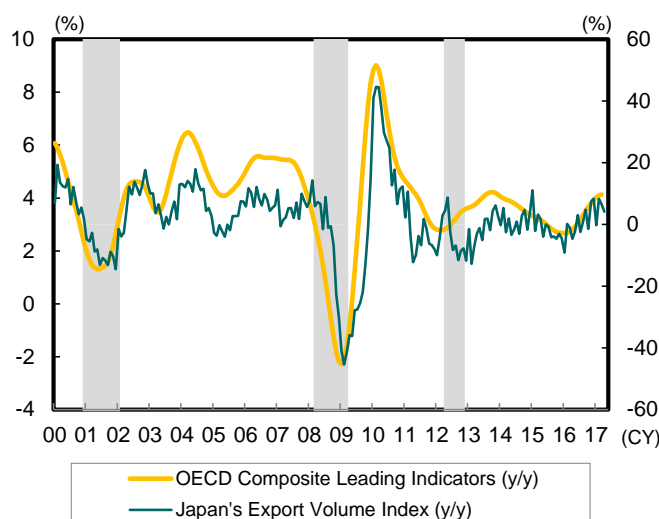
2. How will the Fed's Exit Strategy Influence the Global Economy?

At the same time, we believe that caution is required regarding the future of overseas demand. In the US, the Fed has already implemented multiple interest rate hikes, and it has announced that reduction of the balance sheet will begin within the year. This is expected to bring downward pressure on not only the US economy, but emerging nations as well.

The global economy has gradually recovered over the past few quarters, and is continuing to expand. Looking at recent trends in the OECD Composite Leading Indicators, which show the direction of the global economy, we see that the extent of the economy’s year-to-year growth has expanded since the beginning of 2016 (Chart 3). Japan’s export volume index has also shifted into a growth trend, riding in on the tailwind produced by the global economic recovery. When we examine the business cycles in the US, the EU, and China, we see that the economy’s momentum began to pick up in the US and EU around the middle of the 2016, while China’s economy moved toward bottoming out (Chart 4). This trend in the economy has encouraged the US and EU to move toward changing their respective monetary policies with a move to implementation of exit strategies.

First of all, the Fed began raising interest rates in December of 2015 for the first time in nine and a half years (since June 2006). Then it implemented additional interest rate hikes, first in December of 2016 and then in March and June 2017. The Fed also announced that reduction of the balance sheet will begin within the year. Meanwhile, the ECB reduced its monthly asset purchases associated with its quantitative easing program from 80 bil euros to 60 bil euros since April 2017. The bank is expected to continue reducing purchases in stages in the future.

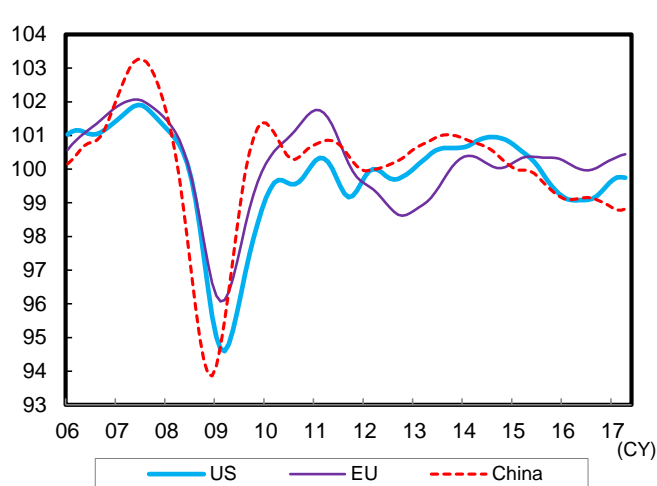
The Global Economy and Japan’s Export Volume Index
Chart 3



Source: OECD, Ministry of Finance, Cabinet Office, Haver Analytics; compiled by DIR

- Notes: 1) The OECD Composite Leading Indicator used in this chart is Trend Restored, based on OECD+6.
- 2) Shaded areas represent periods of economic recession in Japan.

OECD Composite Leading Indicators for the US, EU, and China
Chart 4



Source: OECD, Haver Analytics; compiled by DIR.

Note: The OECD Composite Leading Indicator used in this chart is Amplitude Adjusted.

Downward pressure on economy expected after 2018

As the exit strategies of the US and EU progress, what kind of influence will this have on the global economy? Our global economic model looks at three major factors as a means of measuring the degree of influence on the world economy. These are (1) US interest rate hikes and balance sheet reduction, (2) EU's continuation of quantitative easing, and (3) EU's halting of quantitative easing. Findings are presented in Chart 5.

First let us confirm one of the possible risk scenarios for the future, in which above mentioned factors (1) and (2) both occur all at once – US interest rate hikes and balance sheet reduction, and the EU's continuation of quantitative easing. According to this scenario, the EU continuing its quantitative easing policy would not be enough to cancel out the effects of US interest rate hikes and balance sheet reduction. The world economy would become susceptible to downward pressure, falling from the baseline scenario by -0.04% in 2017, -0.15% in 2018, and -0.26% in 2019. Now we look at the risk scenario in which above mentioned factors (1) and (3) both occur all at once – US interest rate hikes and balance sheet reduction, and the EU's halting of quantitative easing. According to this scenario, the world economy would become susceptible to downward pressure, falling from the baseline scenario by -0.04% in 2017, -0.16% in 2018, and -0.31% in 2019.

Of course, in order to maintain economic health, both the Fed and the ECB will promote the normalization of monetary policy following the pace of economic recovery. This includes the implementation of interest rate hikes and balance sheet reductions. What this suggests is that the Fed expects the economy to continue improving in the future. However, that does not mean that there is zero risk in introducing a policy made from political compromise. It could still cause overkill in the real economy. Moreover, the appropriate amount of monetary tightening for the US could still bring pressure on the emerging nations and some European nations which they would have difficulty holding up to. If this type of scenario manifests itself, the monetary policies of major countries and regions would most likely be corrected through a feedback loop in which ultimately neutral or monetary easing policies would be preferred. But in the meantime, a certain amount of caution is urged regarding the possibility that a certain amount of downward pressure on the global economy could occur.

		① US Interest Rate Hikes & Balance Sheet Reductions	② EU Continues Quantitative Easing	US Interest Rate Hikes & Balance Sheet Reductions + EU Continuation of Quantitative Easing (① + ②)	③ EU Ends Quantitative Easing	US Interest Rate Hikes & Balance Sheet Reductions + EU Ends Quantitative Easing (① + ③)
		US	2017	-0.06%	0.03%	-0.05%
	2018	-0.22%	0.11%	-0.16%	0.09%	-0.17%
	2019	-0.37%	0.17%	-0.28%	0.08%	-0.32%
EU	2017	-0.07%	0.04%	-0.05%	0.04%	-0.05%
	2018	-0.25%	0.17%	-0.14%	0.13%	-0.16%
	2019	-0.43%	0.26%	-0.25%	0.13%	-0.33%
Emerging Nations	2017	-0.06%	0.03%	-0.04%	0.03%	-0.04%
	2018	-0.20%	0.10%	-0.15%	0.08%	-0.16%
	2019	-0.34%	0.16%	-0.25%	0.08%	-0.29%
World	2017	-0.06%	0.03%	-0.04%	0.03%	-0.04%
	2018	-0.22%	0.12%	-0.15%	0.10%	-0.16%
	2019	-0.37%	0.19%	-0.26%	0.09%	-0.31%

Source: Produced by DIR using the DIR world economic macro model.

Notes: 1) Cumulative rate of deviation from baseline.

2) Figures for "World" are the total of those for the US, EU, and the emerging nations (covers about 82% of world GDP).

3) Case (1) assumes yield on 10-yr US treasury notes to increase by 18.75bp each quarter (three interest rate hikes of 25bp each between 2017 and 2019), while the Fed's balance sheet is reduced by 6 bil dls each quarter between 2017 and 2019. Case (2) assumes that the ECB balance sheet is increased by 18 bil euros each quarter between 2017 and 2019. Case (3) assumes that the approach described in Case (2) ends in 2017.

3. Economic Outlook: Growth of +1.5% Seen in FY2017, and +1.1% in FY2018

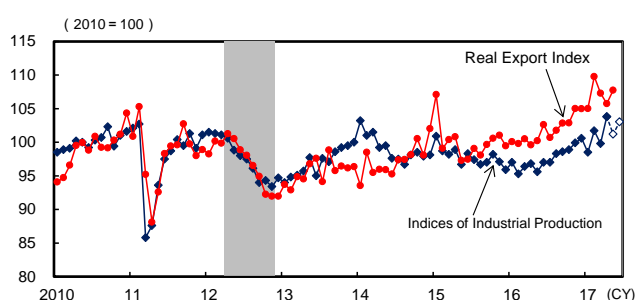
3.1 Growth Expected to Pick Up Pace throughout FY2017

Favorable overseas demand and inventory investment to become driving force

Despite the risks discussed in the previous section, Japan's economy is expected to see accelerated growth throughout FY2017 with support from (1) favorable overseas demand, and (2) inventory investment. Japan's economy has recently moved into a major recovery and expansion phase. Chart 6 shows Japan's real exports and trends in the indices of industrial production. Industrial production continued in a trend of gradual decline since the beginning of CY2016, but then in the latter half of the year real exports bottomed out, and since then on average production has been expanding. Looking at trends in exports by destination, we see that exports to the US are maintaining favorable performance despite the sense that they are about to peak out. Meanwhile, exports to the EU and Asia are recovering and heading toward expansion. Behind the bottoming out of exports can be seen (1) favorable demand for consumer goods in the US due to improvements in the employment environment, (2) pent-up domestic demand rising to the surface in the EU as a result of the ECB's monetary easing, which lagged behind the US in its implementation, and (3) the emerging economies appear to be near bottoming out, centering on China whose economy had strengthened its downward trend as a result of capital outflows associated with the US monetary tightening.

Of the above listed factors, (3) requires serious monitoring for the foreseeable future. China's economic comeback depends in part on the resurgence of real estate development which has again become the destination funds which have been retained in the domestic market as a result of suppression of capital outflows associated with the strengthening of restrictions on mobility of capital. This tendency can lead to recoil and adjustment risk in the future. Meanwhile, it appears that public investment is being used to shore up the economy with the meeting of the National Congress of the Communist Party of China just around the corner. There is a very good chance that this factor will no longer be contributing to the economy in CY2018 and beyond. Moreover, if the Fed further accelerates its tight money policy, capital outflows from the emerging nations including China could recommence, creating yet another factor leading to economic downturn.

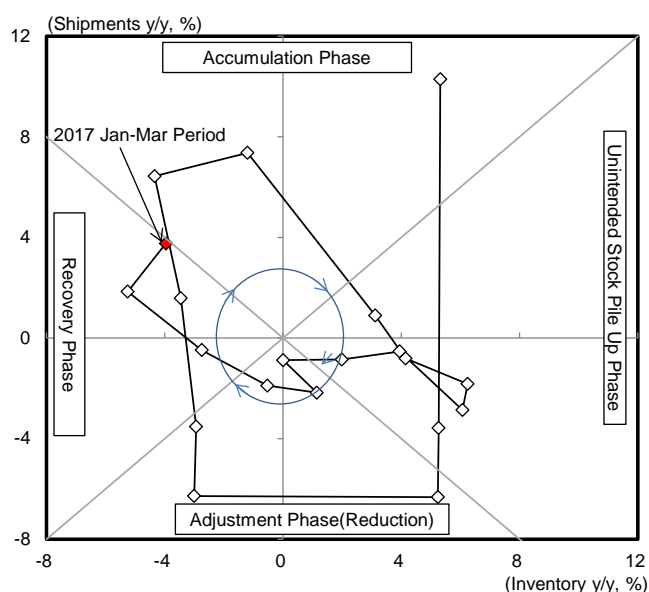
Japan's Real Exports and Industrial Production
Chart 6



Source: BOJ, METI, and Cabinet Office; compiled by DIR
Notes: 1) Shaded areas represent periods of economic slowdown.
2) Values shown for most recent two months of industrial production are in accordance with METI's production forecast survey.

The Inventory Cycle

Chart 7

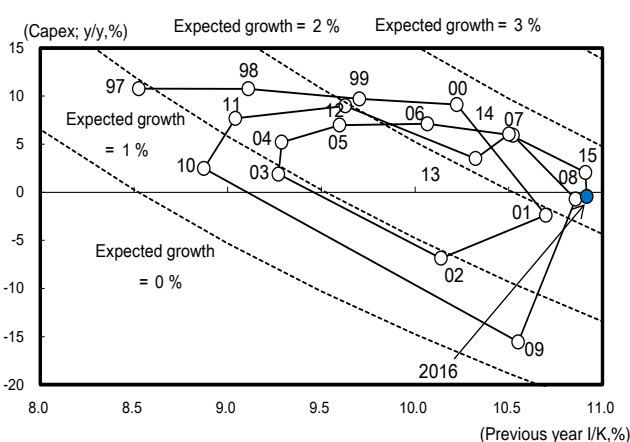


Source: METI; compiled by DIR

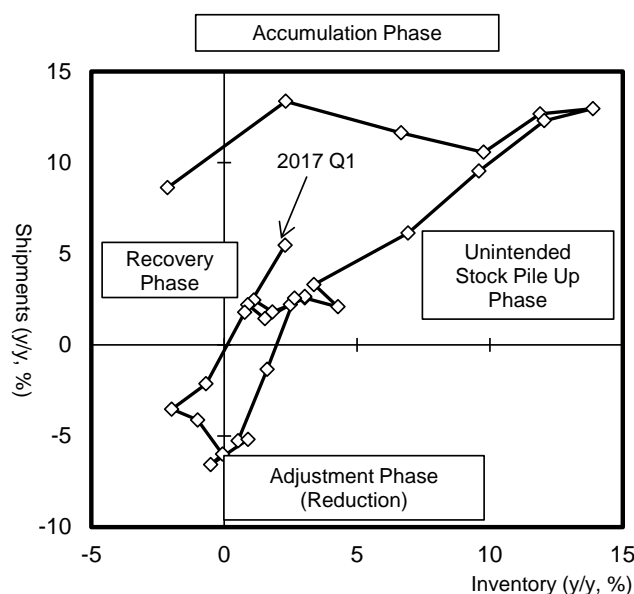
Meanwhile, the US itself is not immune to the risk of economic slowdown. First of all, judging from the Juglar Cycle, the mid to long-term cycle of the US economy, the six years lasting from 2010 to 2015 represent a capital stock accumulation phase, during which the economy is driven by growth in capital expenditure (Chart 8). However, as a result, no more margin is left for further expansion of capital expenditure. The US economy has entered the maturation phase. On the other hand, judging from the Kitchin Cycle (the short-term economic cycle), the US economy has just recently been in the inventory accumulation phase, which promises to act as a factor encouraging economic growth for the time being (Chart 9). However, this acts only as a short-term factor in speeding up growth. There is not much of a chance that it can continue beyond CY2018. In other words, both China and the US are currently performing favorably. However, it would be difficult to assume that either can keep up that growth in the long-term.

Next we take a look at the inventory cycle shown in Chart 7 on the previous page. Inventory adjustment was in the inventory reduction phase until the middle of CY2016. Then it reached the end of its cycle, and moved into the recovery phase, then back into the inventory accumulation phase. However, as mentioned above, this merely represents the short-term economic growth cycle. Therefore, most likely acceleration of growth supported by the two previously mentioned factors, (1) favorable overseas demand and (2) inventory investment, will only be a temporary phenomenon. According to our main economic scenario, Japan's economic growth rate will reach a peak during FY2017, and then head toward a gradual slowdown during FY2018.

US Capital Stock Cycle Chart 8 **US Inventory Cycle Chart 9**



Source: BEA, Haver Analytics; compiled by DIR.



Source: US Dept. of Commerce; compiled by DIR

3.2 Moving toward Balanced Growth in FY2018 Driven Equally by Domestic and Overseas Demand

Personal consumption to continue gradual expansion

As was mentioned in the previous section, Japan's economic growth will no longer be led by overseas demand. Instead, domestic demand will take over the role of providing support for growth. However, this may also result in uneven distribution of economic growth in terms of the extent to which growth spreads to regional economies. In this section we consider the question of personal consumption, the most important component in domestic demand. Our conclusion is that personal consumption will continue to gradually expand during the period covered by our outlook (FY2017 – FY2018). However,

expansion of domestic demand will exhibit different patterns in FY2017 and FY2018. The major factor behind growth in consumption in FY2017 will be the falling away of negative factors which inhibited growth in the past. On the other hand, in FY2018, genuine improvement in the employment environment affecting even regular employees is expected to result from the worsening manpower shortage, and this will drive growth in consumption.

Three positive factors affecting personal consumption in FY2017

The major factor behind growth in FY2017 is expected to be the falling away of negative factors which inhibited growth in the past. The following three factors caused personal consumption to become stagnant in the past: (1) elimination of the special case pension category, (2) increased tax and insurance burden for the working-age generation, and (3) reactionary decline following past economic stimulus measures. These factors will lose their negative effects in the near future, bringing in their stead positive factors for the outlook for personal consumption.

First we take a look at (1) elimination of the special case pension category. Pension payment amounts are determined annually, taking into account the trends in prices and wages. However, despite the collapse in prices in the past, which normally would have meant a decrease in pension payment, the government implemented a special measure so that pensions were not cut and instead left as is until FY2012. Then as of FY2013, the special measure was eliminated, bringing a cut in pension payment per person. The special case pension category was eliminated in FY2015, and as of FY2016 the effect is no longer operating as a factor in holding down per capita pension payments. Taking into consideration the time lag which likely exists before the propensity to consume amongst the elderly population finally recovers, it seems that by now the effect of suppressing consumption should be gradually disappearing.

Next we examine the issues surrounding positive factor (2) Increased tax and insurance burden for the working-age generation. As is the case with pensioners, factors have appeared in recent years bringing pressure on disposable income for the working-age generation. Employee compensation grew around Y9.5 tril between FY2012 and FY2015. On the other hand, income tax also grew by around Y4 tril due to the growth in income, while in addition, social burden (employee's share of social insurance contribution) also grew by around Y3 tril, placing a restraint on growth in disposable income. Even if salaries grew in terms of face value the net amount did not grow, effectively putting a damper on consumption on the part of the working-age generation. The negative effects of the income tax rate being raised are expected to have played themselves out by the end of FY2016. Meanwhile, the annual rate of increase in insurance premiums is also near its point of peaking out. Overall, our view is that negative factors holding down the growth rate of disposable income in comparison to the growth rate of employee compensation will gradually fall away. Of course, the original source of this problem, Japan's low birthrate and aging population, will continue to be an issue. Hence, as long as there is no change in the general trend toward growth in social insurance burden, this problem will continue to reignite in the future. However, we can at least declare these factors as positive ones as of this point, which are expected to bring improvements in the outlook for disposable income for the duration of the period covered by our outlook, or for around the next 2-3 years.

Finally, we take into consideration positive factor (3) Reactionary decline following past economic stimulus measures. The past economic stimulus measures discussed here are mainly Eco-car related tax breaks and the Ecopoint program effecting household electronics, which were implemented since the year 2009 after the global financial crisis hit in 2008.

Chart 10 shows variations in real consumer expenditure on durable goods since 1994. Looking at this chart it becomes evident that consumer expenditure on durable goods during the period covered by the Eco-car related tax breaks and the Ecopoint program, and the period lasting until the Jan-Mar period of 2014 (unrelated to economic measures) in which last minute demand occurred due to the increase in

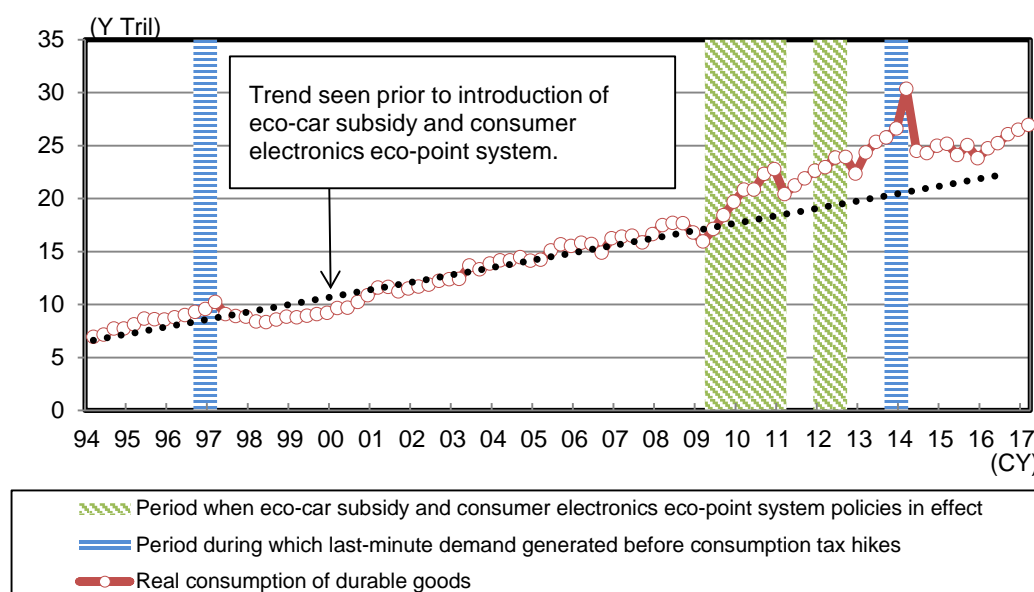
the consumption tax, recorded performance vastly exceeding past trends. On the other hand, when we consider the fact that real employee compensation was stagnant until the inauguration of the second Abe administration, we can conclude that expenditure on durable goods in contrast to income between the year 2009 up to just before the increase in consumption tax, was too high. In other words, there was preconsumption over demand in the area of durables as a result of economic measures. It is quite possible that a form of economic padding occurred. The reaction to this preconsumption over demand then appeared after the consumption tax was raised, and is thought to be related to the decline in expenditure on durable goods which occurred after that time.

At the same time, however, we can also conclude from Chart 10 that during the most recent three quarters, real consumer expenditure on durable goods has entered a recovery trend. About eight years have passed since the Eco-car related tax breaks and the Ecopoint program were first introduced, and it has been more than three years since the last increase in consumption tax. Now durable goods purchased when those economic measures were implemented are up for replacement, so it is possible that the market for durables may be on the way up again in the near future.

To summarize the above arguments, it is our opinion that personal consumption will continue to record moderate growth in the future for two reasons. First, real wages are expected to maintain growth, though their growth rate will likely slow down. In addition, negative factors which have held down personal consumption until just recently, including (1) Elimination of the special case pension category, (2) Increased tax and insurance burden for the working-age generation, and (3) Reactionary decline following past economic stimulus measures, have pretty much run their course.

Changes in Real Consumer Expenditure on Durable Goods

Chart 10



Source: Cabinet Office; compiled by DIR.

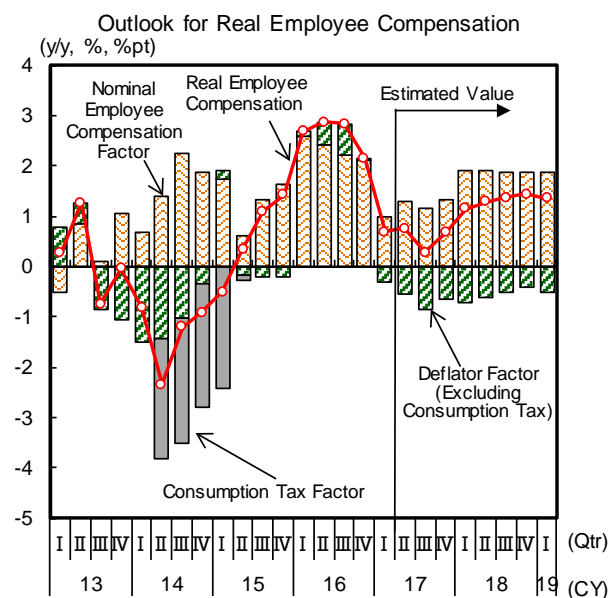
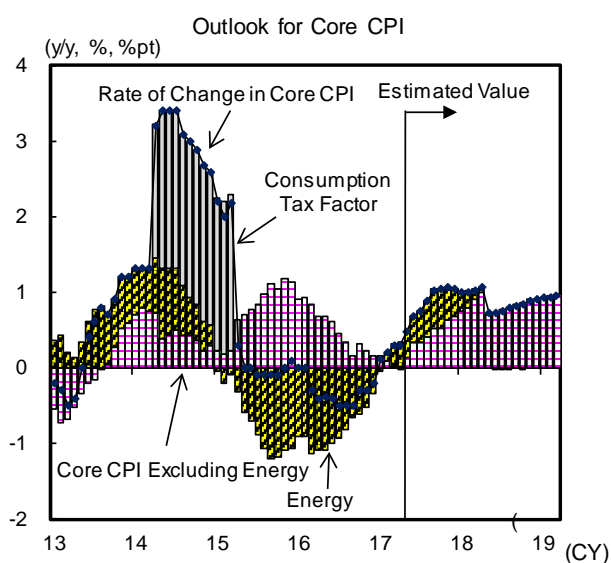
Genuine Improvement in Employment Environment to Become Factor in Accelerated Consumption in FY2018

In FY2018 the consumption expansion effect due to the falling away of negative factors inhibiting consumption explained in the previous section will disappear. In its place a new factor will appear which is expected to drive expansion in consumption – that is genuine improvement in the employment environment affecting even regular employees as a result of the worsening manpower shortage. In addition, the inflation rate is expected to calm down, while real employee compensation moves toward further growth.

Chart 11 indicates that most recently, the pattern of growth of real employee compensation has become well-established, in which figures regularly exceed those of the same period of the previous year. This contrasts with the major declines occurring in FY2014 as a result of the increase in prices after the consumption tax was raised. This effect began to fall away once FY2015 got underway, while at the same time contributing to an increase in real wages. In addition to the positive factor of prices, nominal wages have also continued an upward trend due to the tight supply and demand situation for labor and increases in base salary. All of these factors have encouraged growth in real employee compensation. In addition to real employee compensation, the number of employees has increased regularly, reflecting corporate demand for labor centering on the non-manufacturing industry. This state of affairs has also brought upward pressure on wages in the macro sense.

As for future prospects for the employment and income environment, there is a very good possibility that the employment environment will continue to improve. In addition, upward pressure on wages will probably continue due mainly to the supply and demand situation for labor, which continues to be tight. However, as is shown in Chart 11, the price of crude oil is expected to recover in y/y terms during FY2017, and prices are expected to experience upward pressure as the yen becomes progressively weak. As a result, the growth rate for real wages is expected to gradually slow down. However, the suppression of real wages which usually accompanies rising prices is expected to disappear in FY2018. In addition, as was explained in the previous section, if genuine growth in wages begins, improvement in the capacity for households to consume will likely pick up speed.

Outlook for Inflation Rate and Real Employee Compensation **Chart 11**



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

Source: Cabinet Office; compiled by DIR.

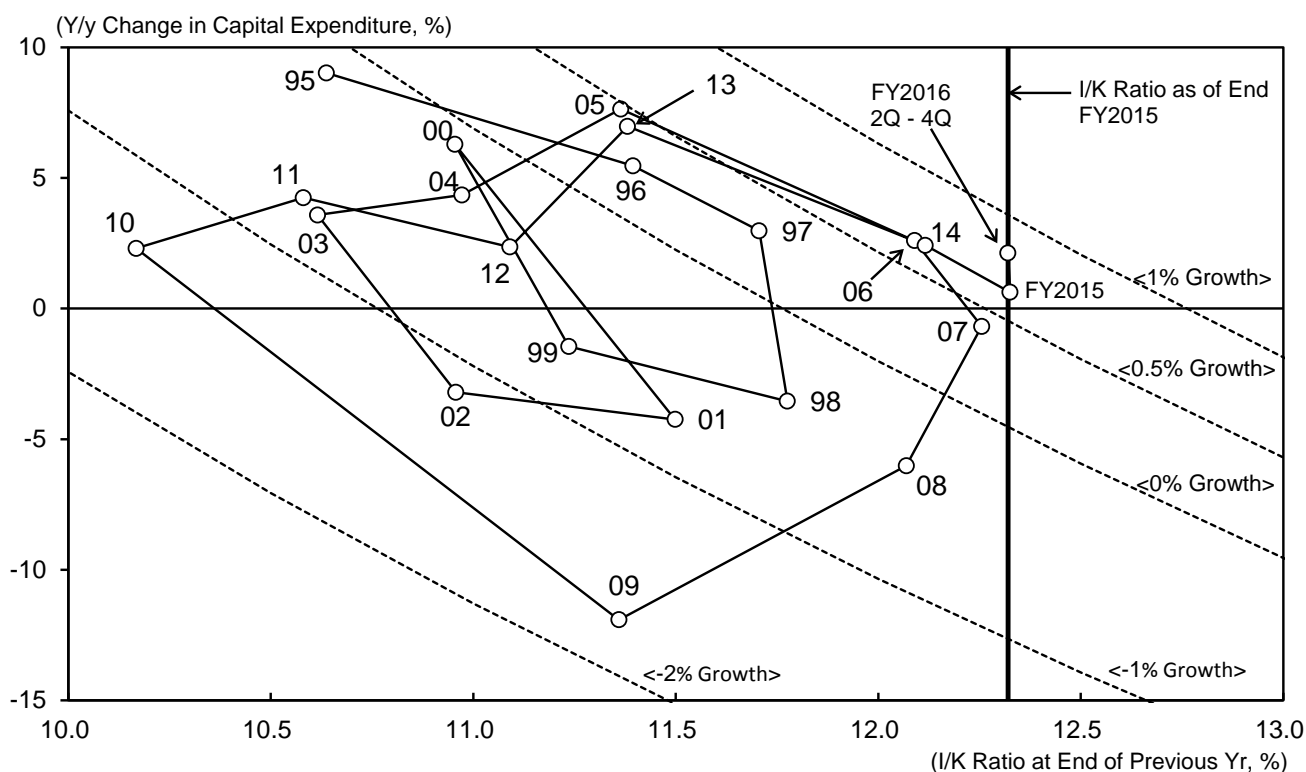
Capital Expenditure Expected to Maintain Steady Undertone Centering on Investments in Rationalization & Labor Saving

As was mentioned in the previous section, corporate incentive to carry out capital expenditure is strengthening, especially with an eye toward rationalization & labor saving investment due to the worsening labor shortage. Meanwhile, if full-fledged growth in wages occurs in the future, including improvement in wages of regular employees, unit labor cost will increase and become a factor in dragging down corporate earnings unless the increase in wages can be offset by improvements in labor productivity or by achieving more profitability. It is precisely here where investment in rationalization & labor saving finds its role in improving productivity, while investments in research & development, as well as upgrading and renovation, have as their purpose the improvement of earnings. Capital expenditure is therefore expected to continue moderate growth.

One of the problems which have been pointed out in recent trends in capital expenditure is that spending on capex has not grown as much as one might expect despite the fact that corporate earnings have been favorable. One of the aspects of this issue is illustrated in Chart 12, which indicates that, much like the situation in the US, Japan's capital stock cycle is now in the maturation phase. In addition, factory operating rates are at a lower level than they have usually been during past periods of growth in capital expenditure. In examining the correlation between components of corporate earnings and capital expenditure, we see that there is a close relationship between domestic sales volume and export sales volume. In contrast, there is not much correlation between variable costs and cost of production. In other words, while expansion of earnings attributable to the volume factor plays a major role in increasing capital expenditure, expansion of earnings attributable to the price factor does not. This tells us that in order to predict whether or not capital expenditure will move into full swing, we have to confirm that the following conditions have been met: along with growth in both domestic sales volume and export sales volume, factory operating rates must have exceeded a certain threshold and continue performing at that level.

Diagram: The Stock Cycle

Chart 12



Source: The Bank of Japan.

Economic Indicators and Interest Rates

Chart 13

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			
Real GDP										
Q/q %, annualized	1.4	1.0	2.6	1.3	1.1	1.3				
Y/y %	1.6	1.3	1.5	1.5	1.5	1.5	1.2	1.2	1.5	1.1
Current account balance										
SAAR (Y tril)	20.6	18.4	20.2	21.1	21.7	22.1	17.9	20.2	21.5	23.1
Unemployment rate (%)										
	3.1	2.9	2.9	2.9	2.8	2.8	3.3	3.0	2.8	2.7
CPI (excl. fresh foods; 2015 prices; y/y %)										
	-0.3	0.2	0.5	0.9	1.0	0.9	-0.0	-0.2	0.8	0.9
10-year JGB yield										
(period average; %)	0.04	0.07	0.00	0.00	0.00	0.00	0.26	-0.05	0.00	0.00

Source: Compiled by DIR.

Note: Estimates taken from DIR's *Japan's Economic Outlook No. 193 Update (Summary)*.