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# **FY2016, FY2017 Economic Outlook**

**- Amid persisting concerns of a global economic downturn, fiscal stimulus will underpin the economy -**

May 20, 2016

Mizuho Research Institute

## Key points of our forecast

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- ❑ As the emerging market (EM) slowdown spreads to developed market (DM) economies, we maintain a cautious outlook for the global economy.
- ❑ The Japanese economy will remain subject to strong uncertainties due to the slowdown of the global economy and the impacts of the earthquake and the strong yen. Even though a consumption tax hike is desirable from the point of fiscal rehabilitation, the hike may be postponed again amid strong concerns regarding an economic downturn.
- ❑ Even though the financial market turmoil since the beginning of the year has subsided, market destabilization risks linger since the fundamental picture remains unchanged that the EM slowdown centering around China may trigger uncertainties regarding the global economy and financial sector.
- ❑ The dollar will likely be subject to weakening pressures for some time reflecting US monetary authorities' unease with a strong dollar. The strong dollar may remain under scrutiny for a prolonged period, depending upon a downturn of the US economy and the future course of the US presidential election.
- ❑ We have revised down our forecasts on the pace and target of interest rate hikes from 2017 onward as the Federal Reserve Board (FRB) is expected to take a more cautious stance toward interest rate hikes amid rising concerns regarding risks of a stagnation of the US economy.
- ❑ Despite the continuance of a bias toward easing around the world, the rise of concerns regarding a currency war and the limits of monetary policy are leading to a slight shift toward fiscal stimulus to prop up the economy.

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# **I. Overview of the Global Economy**

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**Given downside risks to the global economy, look forward to fiscal policy measures of countries around the world**

## Overview of the global economy: despite forecasts of a DM-led recovery, note the persistence of downside risks

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- ❑ We expect the global economy (the weighted average of countries and regions included in MHRI's forecast) to remain flat in 2016 (+3.2%) (2015: +3.2%). The global economy should pick up as a whole in 2017, driven by the recovery of DM economies and an easing of the deterioration among the commodity-producing countries.
- ❑ Even though the US is headed towards a moderate recovery, the maintenance of a cautious monetary policy stance amid lingering downside risks should lead to a postponement of the US interest rate hike in 2016. The Eurozone remains under low growth and low inflation, and the European Central Bank (ECB) is likely to strengthen forward guidance before the end of the year. Japan is also vulnerable to downside risks and the Bank of Japan (BOJ) is likely to implement additional easing measures during the year.
- ❑ The EM economies remain under persistent downside risks. Even though export conditions should improve due to the recovery among DM economies, China will continue to slow down and growth will be flat for Asia as a whole. Russia and Brazil recorded growth in negative territory for two years in a row.
- ❑ As the EM slowdown spills over to DM economies, there are lingering possibilities of a global recession. We remain concerned about the risk of a further EM slowdown and a decline in crude oil price that could escalate financial market and lead to credit uncertainties.
- ❑ Amid concerns regarding downside risks for the global economy, there are expectations toward international concerted action including fiscal spending.

## Even though the global economy is forecast to follow a DM-led recovery, downside risks linger

- The growth rate for the total forecast area is expected to recover toward 2017 following flat growth in 2016, but there are also downside risks mainly with respect to the EM economies.
  - In 2016, growth is downwardly revised for the US, NIEs and India, and upwardly revised for the Eurozone, Japan, Brazil and Russia, etc. Overall there is a slight upward revision.
  - In 2017, there is a slight upward revision overall due to the upward revisions of growth in Brazil and Russia. We maintain our forecast for a DM-led recovery.

### [ Outlook for the global economy ]

Calendar year	(Y-o-y % change)					(Y-o-y % change)		(% point)	
	2013 (Actual)	2014 (Actual)	2015 (Actual)	2016 (Forecast)	2017 (Forecast)	2016 (Forecast as of March)	2017	2015 (Breadth of change from March)	2016
Total of forecast area	3.3	3.5	3.2	3.2	3.7	3.1	3.6	0.1	0.1
Japan, US, Eurozone	0.8	1.5	1.9	1.4	1.7	1.4	1.7	—	—
US	1.5	2.4	2.4	1.6	2.3	1.8	2.3	-0.2	—
Eurozone	-0.3	0.9	1.6	1.4	1.4	1.2	1.4	0.2	—
Japan	1.4	-0.0	0.6	0.5	0.6	0.4	0.6	0.1	—
Asia	6.4	6.3	6.1	6.0	6.0	6.0	6.0	—	—
China	7.7	7.3	6.9	6.6	6.5	6.6	6.5	—	—
NIEs	2.9	3.4	2.0	1.8	2.2	2.0	2.2	-0.2	—
ASEAN5	5.0	4.6	4.7	4.6	4.5	4.5	4.5	0.1	—
India	6.3	7.0	7.3	7.5	7.5	7.6	7.5	-0.1	—
Australia	2.0	2.6	2.5	2.6	2.5	2.6	2.5	—	—
Brazil	3.0	0.1	-3.8	-3.5	0.6	-3.6	0.0	0.1	0.6
Russia	1.3	0.7	-3.7	-1.2	1.0	-3.3	0.5	2.1	0.5
Japan (FY)	2.0	-0.9	0.8	0.9	0.2	0.9	0.3	—	-0.1
Crude oil price (WTI, USD/bbl)	98	93	49	44	46	29	30	15	16

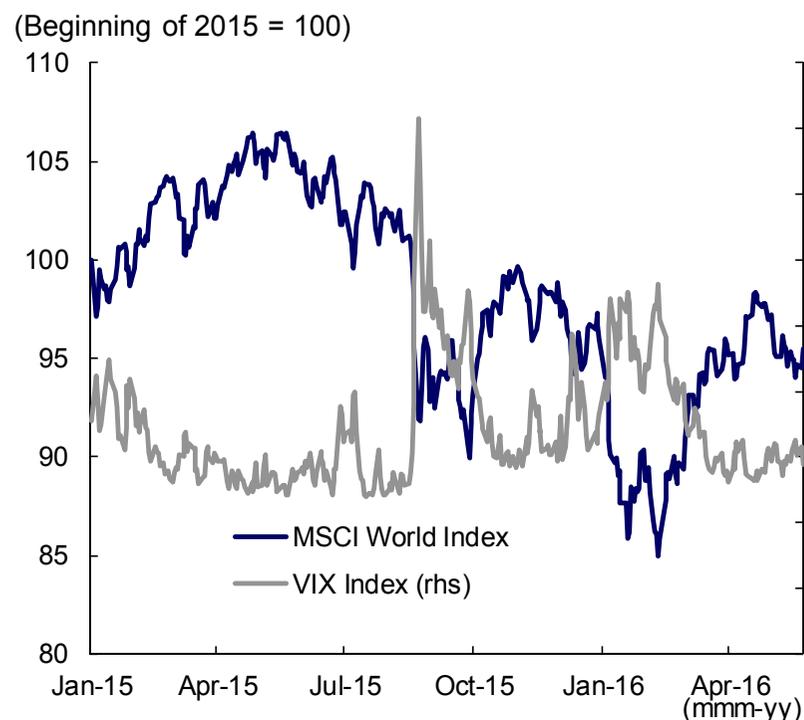
Note: The total of the forecast area is calculated upon the 2013 GDP share (PPP) by the IMF.

Source: Made by MHRI based upon releases by the International Monetary Fund (IMF) and statistics of relevant countries and regions

## A pause in the risk aversion since the beginning of the year triggered by concerns about China and lower oil prices

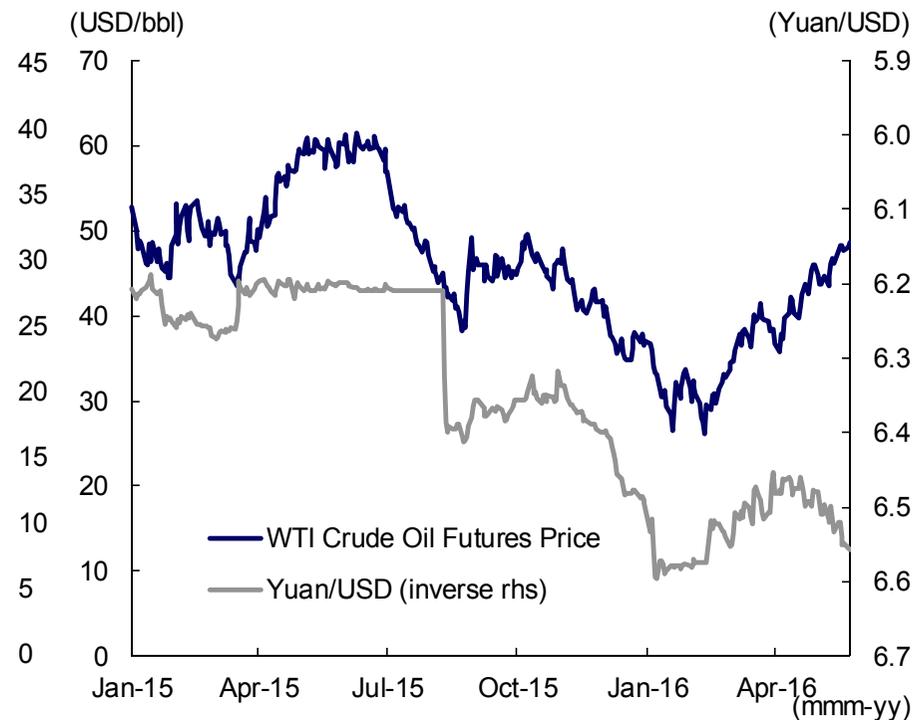
- Even though the depreciation of the renminbi and lower oil prices led to concerns about EM economies at the beginning of the year resulting in a worldwide decline in stock prices, the market is picking up since mid-February.
  - Market sentiment is improving, reflecting the halt in the renminbi's fall and rebound of crude oil prices.
    - ✓ However, there are lingering risks of renewed instability in the market amid the ongoing slowdown in EM economies such as China.

[ MSCI World Index and VIX Index ]



Source: Made by MHRI based upon Bloomberg materials

[ WTI Crude Oil Futures Price and Yuan/USD ]

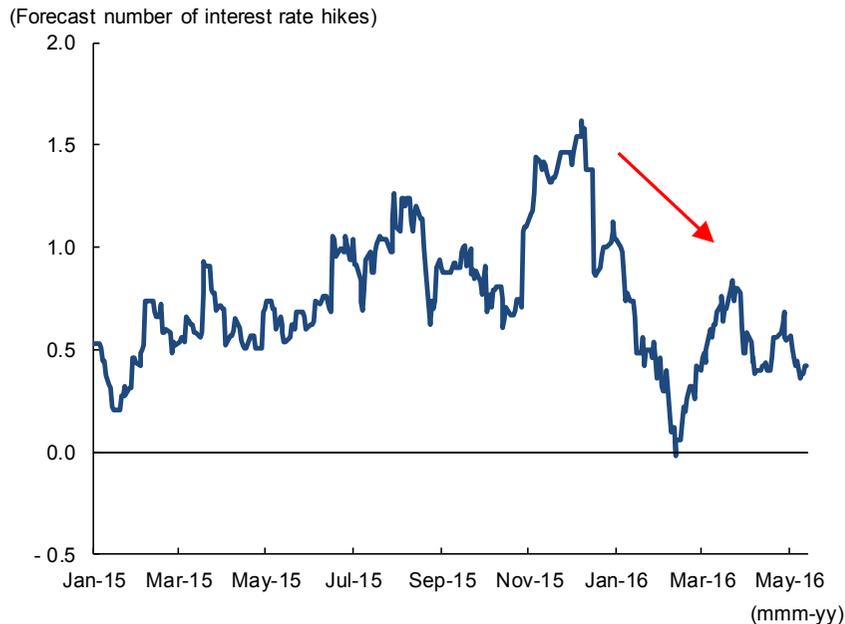


Source: Made by MHRI based upon Bloomberg materials

## Keep a close eye upon the crude oil market

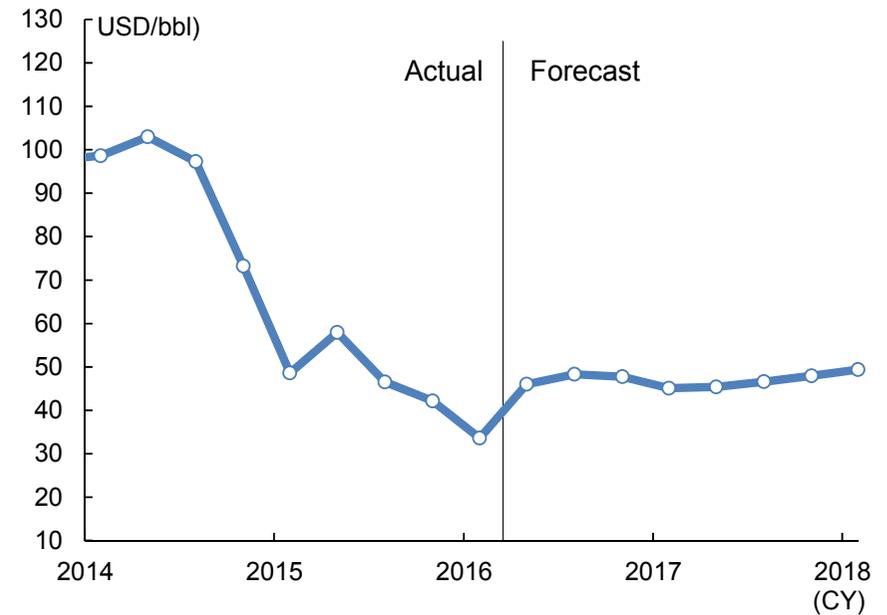
- ❑ The oil market has recovered to mid \$40 levels.
  - Reflecting the ebb of expectations for a US interest rate hike, the strong dollar has corrected and downward pressure on oil prices has also eased.
  - However, speculation on an “output freeze” which boosted the oil market has receded.
- ❑ The oil market is key to the market trends, and prices are forecast to remain at \$40 levels throughout 2016.
  - Although US crude oil production has peaked, the increase of OPEC output will offset the fall of crude oil output in the US.
  - The oversupply of oil is falling and the gap between demand and supply is unlikely to contract during 2016. Speculators hold considerable amounts of short positions.

[ Market forecast for US interest rate hikes ]



Note: The forecast interest rate hike up to 6 months hence (four future FOMC meetings) priced into the FF futures. Calculated on the basis of one rate hike of 25bp.  
 Source: Made by MHRI based upon Bloomberg materials

[ Forecast for Crude Oil Market ]



Note: The forecast is the quarterly average forecast by MHRI  
 Source: Made by MHRI based upon Bloomberg materials



## **II. The Japanese Economy**

**Despite fiscal spending, uncertainties remain strong due to factors such as the earthquake and strong yen**

## Despite lacking strength due to the slow recovery of overseas economies, the Japanese economy has avoided falling into recession

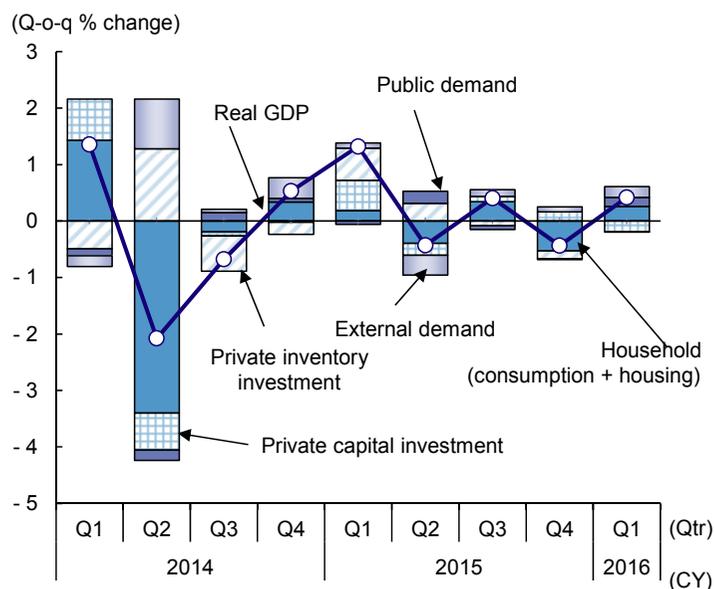
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- ❑ Although the Japanese economy edged up into positive territory in the Jan-Mar quarter of 2016, the pace of growth is flat when averaged out with the decline in the Oct-Dec quarter of 2015. Accordingly, the current state of the economy can still be described as a soft patch. FY2015 growth forecast: +0.8% [growth during FY2015 would be virtually zero (-0.0%) when excluding the effect of the strong growth in the second half of FY2014].
- ❑ Japan's economic growth will likely lack strength in FY2016, as the overseas economic slowdown and financial market turmoil are expected to weigh on growth. A last-minute rush of demand ahead of the consumption tax hike (April 2017) will emerge in the second half of the fiscal year and push up the rate of growth to +0.9%, above the potential rate of growth (estimated to be +0.2% to +0.3%) in FY2016.
- ❑ The pace of economic growth is forecast to slow to +0.2% in FY2017 due to a backlash to the last-minute rush of demand. The Japanese economy should be able to avoid a loss of momentum as the backlash wears off in the second half of the fiscal year. Note that Japan may also postpone its next consumption tax hike depending upon discussions at the Ise-Shima G7 Summit. (If we exclude the effect of the consumption tax hike, our forecast for growth would be approximately +0.6% in FY2016 and around +1.0% in FY2017.)
- ❑ Given the strong yen and fall of crude oil prices, the year-on-year (y-o-y) change of the core CPI should trend close to 0% until around the end of 2016. From then onward, the y-o-y change of energy prices should rise to positive territory, lifting the core inflation rate to 1% or so (excluding the impact of the consumption tax hike) toward the latter half of the forecast horizon. We expect gradual improvement in the underlying trend in inflation excluding the impact of energy prices.

## The Japanese economy remains in a soft patch. The Kumamoto earthquake weighed on business sentiment in April

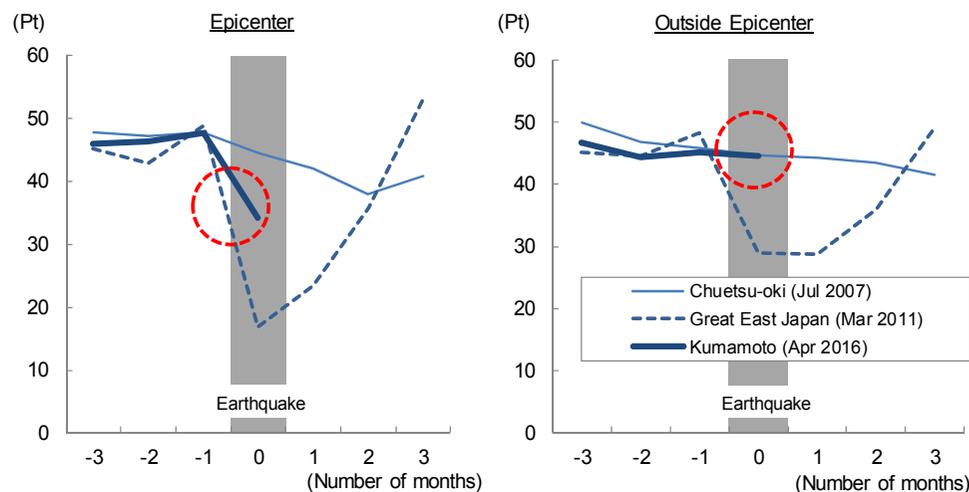
- ❑ Despite the positive real GDP growth of +1.7% q-o-q p.a. in the Jan-Mar quarter of 2016, growth was flat when averaged out with the fall in the Oct-Dec quarter (-1.7% q-o-q p.a.).
  - Even though personal consumption was a relatively strong +0.5% q-o-q, it was insufficient to compensate for the drop in the Oct-Dec quarter (-0.8% q-o-q). Considering the boost from the leap year, the data indicates that the sluggish recovery of personal consumption remains unchanged.
- ❑ The Kumamoto earthquake weighed on business sentiment in April. However, the negative sentiment had not spread nationwide at least as of April.
  - Comparing the Current Economic Conditions DI (*Economy Watchers Survey*) with previous earthquakes, sentiment is worse in the Kyushu area with the Kumamoto Earthquake than it was in the Tohoku area (including Niigata) at the time of the Niigata Chuetsu-oki Earthquake. However, business sentiment other than at the epicenter of the earthquake is virtually unchanged.

[ Real GDP (factor contribution) ]



Source: Made by MHRI based upon Cabinet Office, *Quarterly Estimates of GDP*

[ Current Economic Conditions DI (*Economy Watchers Survey*, comparison with previous earthquakes ]

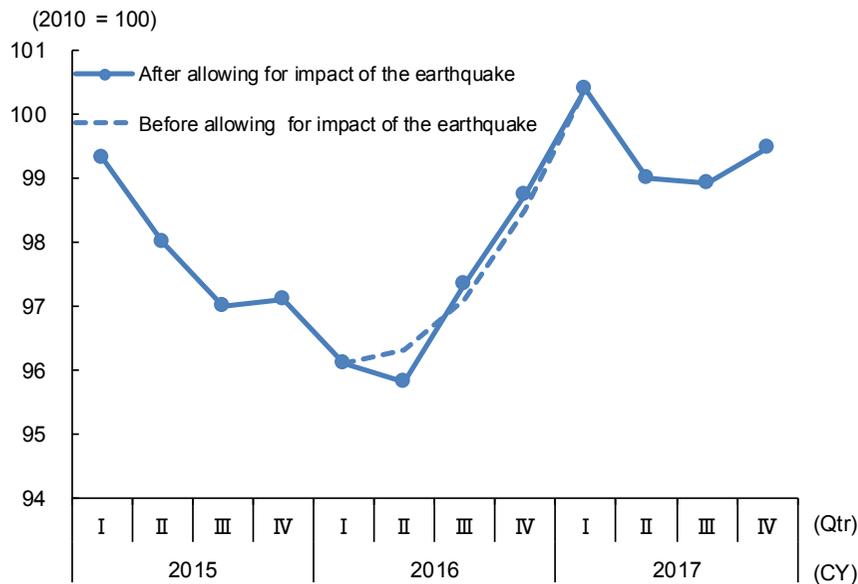


Note: Taking the epicentres of the Chuetsu-oki Earthquake and Great East Japan Earthquake to be Tohoku (The *Economy Watchers Survey* classifies Niigata as Tohoku) and the Kumamoto Earthquake to be Kyushu. Calculating the weighted average of the number of responses for regions outside the epicentre.  
 Source: Made by MHRI based upon Cabinet Office, *Economy Watchers Survey*

## Impact of the earthquake: assumption of a 1%pt reduction in Apr-Jun quarter production and a 0.1%pt decline of personal consumption

- We assume a 1%pt reduction of industrial production in the Apr-Jun quarter of due to the Kumamoto earthquake.
  - This is based upon the assumption that supply chain disruptions have resulted in suspension of automobile production in the order of 90,000 vehicles. Considering the spill-over to other automotive components, production will likely be pushed down by about 1%pt in the Apr-Jun quarter of 2016.
    - ✓ However, ongoing aftershocks mean there is still the risk of further decline. On the other hand, production for restoration processes from May could also alleviate the situation and prevent production from falling as much as expected.
- Based on the Niigata-Chuetsu-oki Earthquake and accounting for the share of the location for this disaster, personal consumption is estimated to fall by about 0.1%pt in the Apr-Jun quarter.

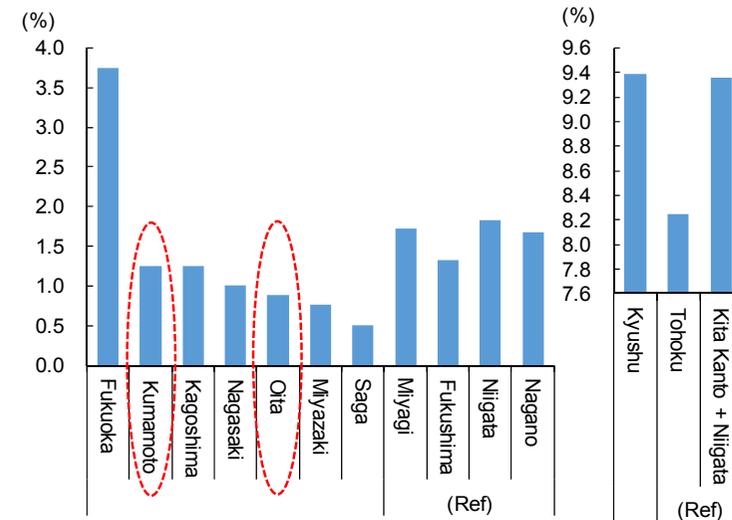
[ Impact of the Kumamoto earthquake on industrial production (estimate) ]



Note: Readings from QII and beyond are MHRI's forecast.

Source: Made by MHRI based upon Ministry of Economy, Trade and Industry, *Indices of Industrial Production*

[ Each prefecture in Kyushu's share of nationwide personal consumption ]



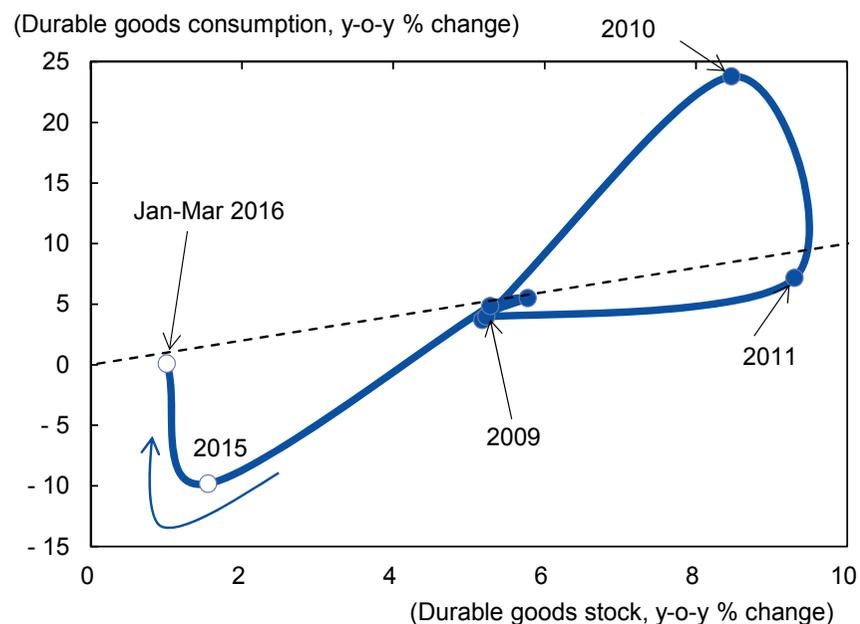
Note: The figures for each prefecture in Kyushu and Kyushu are calculated from the nominal base for 2012, while Miyagi Prefecture, Fukushima Prefecture and Tohoku show the corresponding figures for 2011, and Niigata Prefecture, Nagano Prefecture and Kita Kanto + Niigata show the corresponding figures for 2007.

Source: Made by MHRI based upon Cabinet Office, *Annual Report of Prefectural Accounts*

## Personal consumption remains sluggish

- ❑ Personal consumption is forecast to remain sluggish due to ① the weakness in disposable incomes due to the increase in social welfare insurance premiums, etc., ② the adjustments in stocks of durable goods, and ③ the rise in the price of food and other items.
  - While there have been recent signs of improvement in the stock adjustment of durable goods, the adjustment period continues.
- ❑ Furthermore, in addition to the recent instability in the financial markets as evident by weaker stock prices, etc., negative interest rates may have had a negative impact upon consumer sentiment.
  - The interest rate level DI indicates a sharp increase in the response rate “Interest rate levels are too low” for the Jan-Mar quarter of 2016, resulting in the lowest DI since 2006.

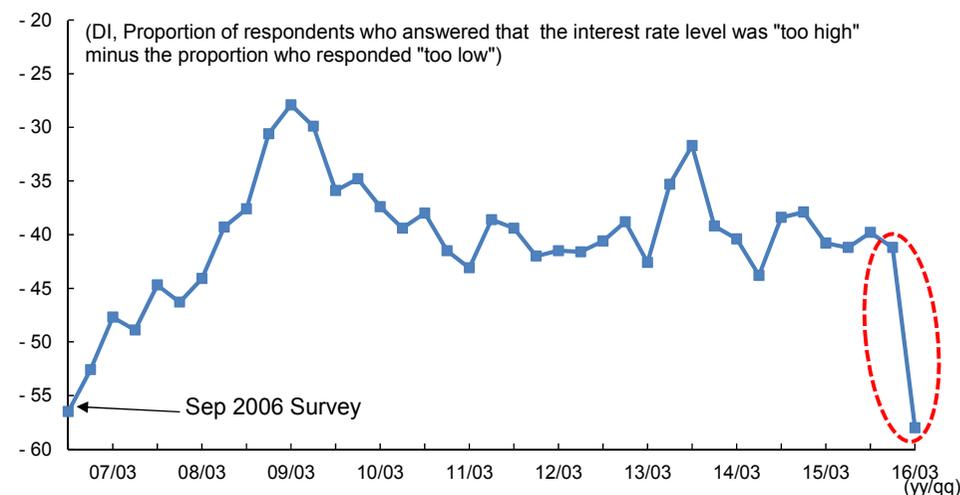
[ Stock cycle of durable goods ]



Note: Calculating stock since 2015 based on extrapolation of the natural rate of decrease and the actual figures for durable goods. Calculating Jan-Mar 2016 based on the seasonally-adjusted figure.

Source: Made by MHRI based upon Cabinet Office, *National Accounts*

[ Interest rate level DI ]

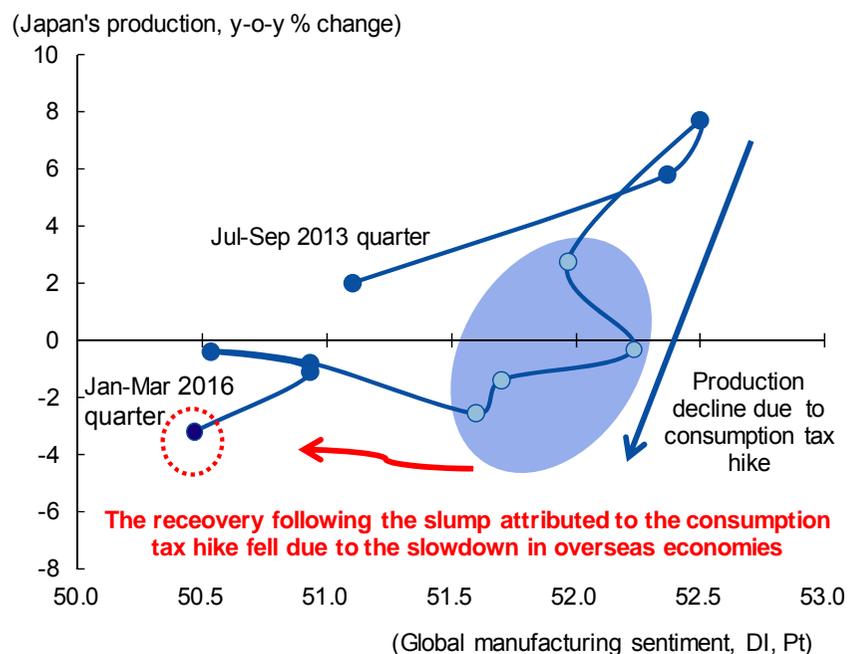


Source: Made by MHRI based upon BOJ, *Opinion Survey on the General Public's Mindset and Behavior*

## Protracted period of inventory adjustments due to weak demand

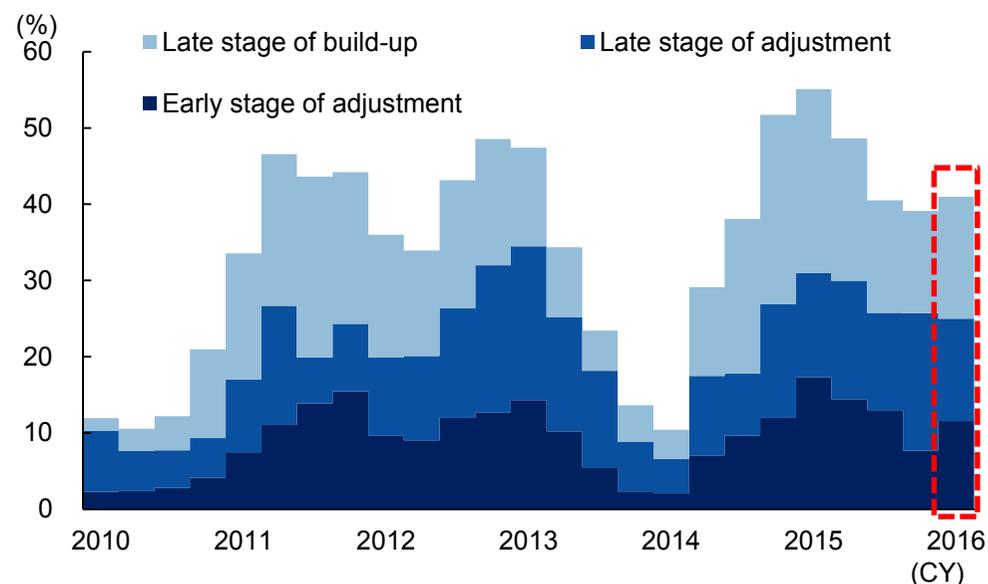
- ❑ The recovery of production from the slump following the consumption tax hike is taking longer than expected due to the slowdown of overseas economies.
- ❑ Given lingering inventory adjustment pressures, we anticipate an ongoing lack of strength in the economy.
  - The proportion of goods in the inventory adjustment phase has recently been more or less flat. Furthermore, the proportion of goods (candidates for inventory adjustment) has increased slightly in the late stage of inventory adjustment.

[ Indices of Industrial Production and Global Sector PMI (Quarterly) ]



Source: Made by MHRI based upon Ministry of Economy, Trade and Industry and Markit materials

[ Weighting of items (goods) in the inventory adjustment phase, build-up in inventory phase (late stage of inventory adjustment) ]



Note: Items in inventory adjustment phases are weighted. Items for which inventories have increased y-o-y are deemed to be in the "early stage of inventory adjustment" and items whose inventories have decreased y-o-y are deemed to be in the "late stage of inventory adjustment".

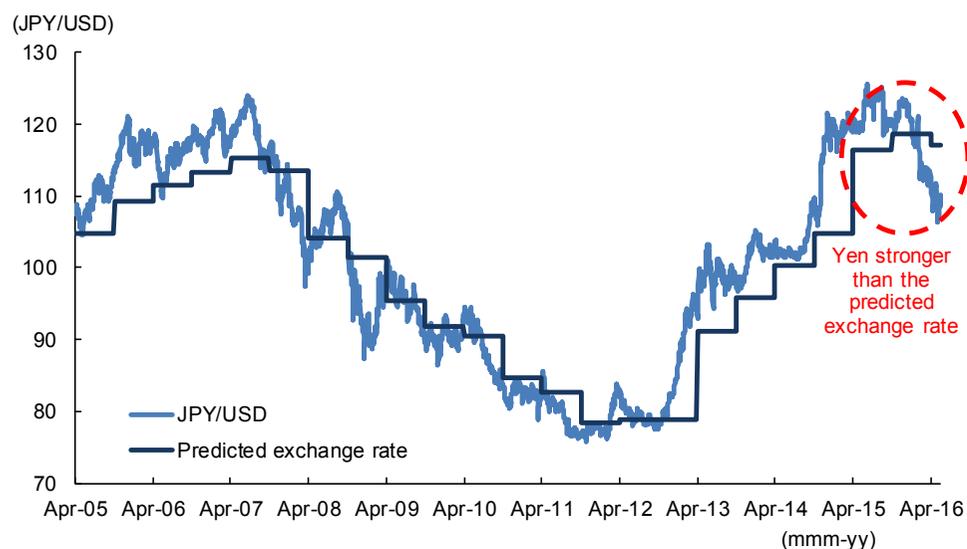
Source: Made by MHRI based upon Ministry of Economy, Trade and Industry, *Indices of Industrial Production*

## Yen at stronger levels against the dollar than the predicted exchange rate

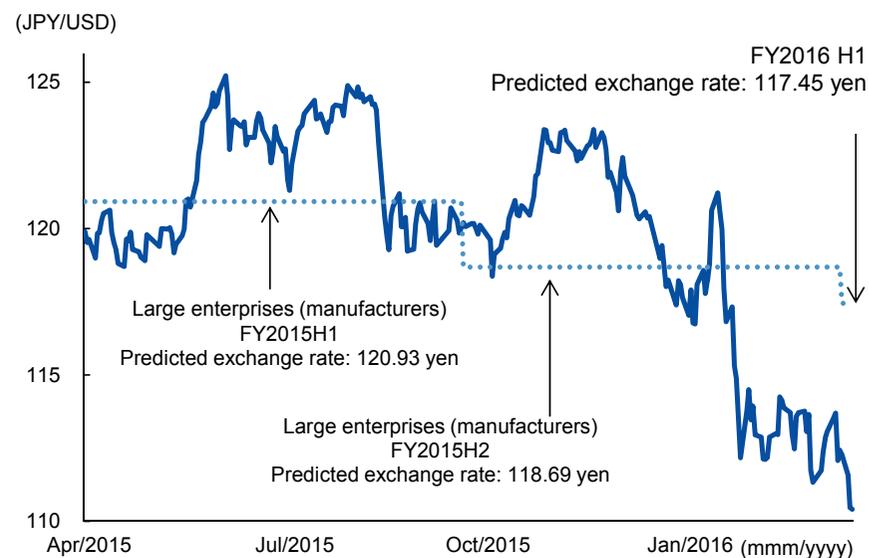
- The yen is at stronger levels against the dollar than the predicted exchange rate (BOJ *Short-term Economic Survey of Enterprises in Japan* (BOJ *Tankan*)), which is weighing on corporate earnings.
  - It is the first time in approximately three years since October 2012 that the yen has strengthened sharply against the dollar than the predicted exchange rate.
  - The average predicted exchange rate expected by companies in the BOJ *Tankan* (March survey) is 117.46 yen = \$1

### [ JPY/USD and predicted exchange rate ]

(All enterprises (all industries), long-term trend)



(All enterprises (manufacturing), recent trend)



Note: The predicted exchange rate is the on the basis of an all enterprises (all industry) basis from the BOJ *Short-term Economic Survey of Enterprises in Japan* (TANKAN). First half prediction from the June survey and second half prediction from the December survey. (However, the prediction for FY2016 is taken from the March survey).

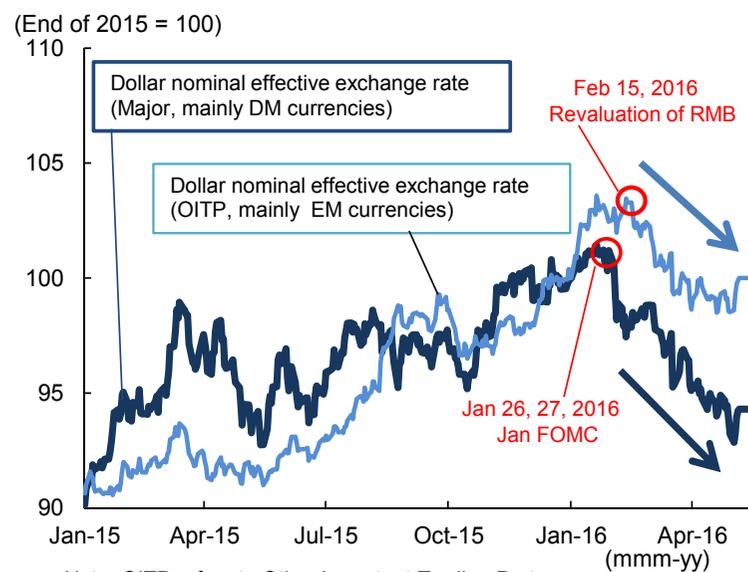
Source: Made by MHRI based upon BOJ and Bloomberg materials

Source: Made by MHRI based upon BOJ and Bloomberg materials

## The period of correction in the strong dollar is expected to continue until about autumn

- ❑ The correction of the strong dollar since February has been triggered by action from the US and Chinese authorities.
  - The downward revision of the forecast for US interest rate hikes at the January FOMC (January 26, 27) triggered a reversal of the strong dollar against DM currencies.
  - The upward revaluation of the renminbi (February 15) after a statement from the People's Bank of China Governor on constraint towards selling the renminbi triggered a reversal towards a weak dollar.
- ❑ Developments between the US and China should continue to sway the value of the dollar. A soft dollar tone of the currency market is expected to persist until about autumn.
  - US factors are unlikely to exert upward pressure on the dollar as long as US authorities remain cautious about hiking US interest rates.
  - In the run-up to the G20 Summit (September), we expect the Chinese authorities to maintain policies that consider the stability of the international financial markets unless domestic conditions deteriorate.

[ The dollars nominal effective exchange rate ]



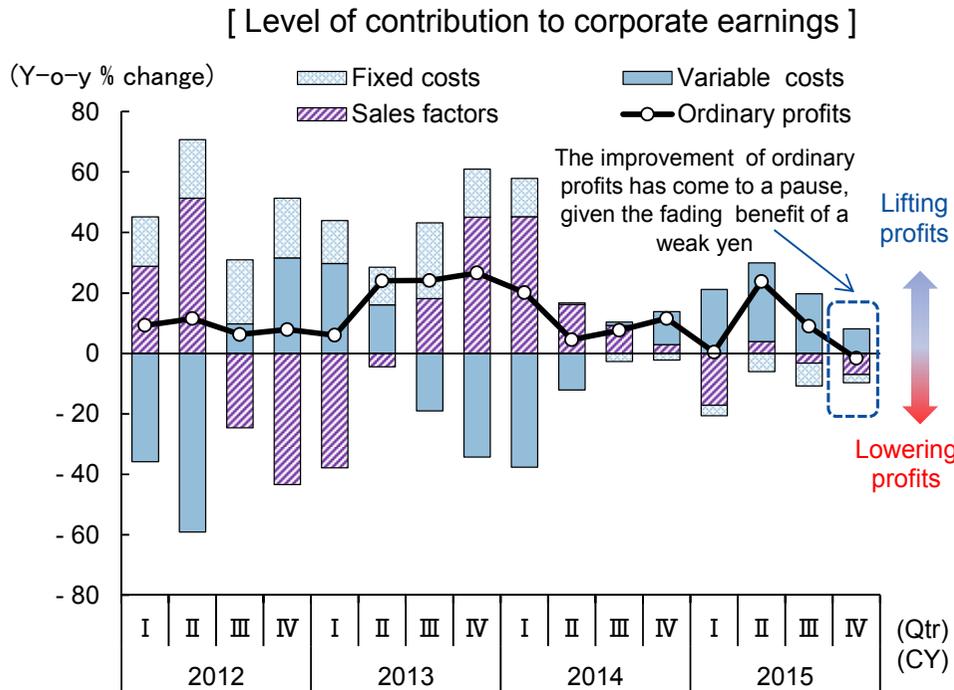
[ G7 and G20 schedule ]

Date	Location	Entity
Feb 26-27	China (Shanghai)	G20 (Meeting of Finance Ministers and Central Bank Governors)
Aor 14-15	US (Washington DC)	G20 (Meeting of Finance Ministers and Central Bank Governors)
May 20-21	Japan (Sendai)	G7 (Meeting of Finance Ministers and Central Bank Governors)
May 26-27	Japan (Ise-Shima)	G20 (Ise-Shima Summit)
Jul 23-24	China (Chengdu)	G20 (Meeting of Finance Ministers and Central Bank Governors)
Sep 4-5	China (Hangzhou)	G20 (Hangzhou Summit)
Oct 6	US (Washington DC)	G20 (Meeting of Finance Ministers and Central Bank Governors)

Source: Made by MHRI based upon Ministry of Finance

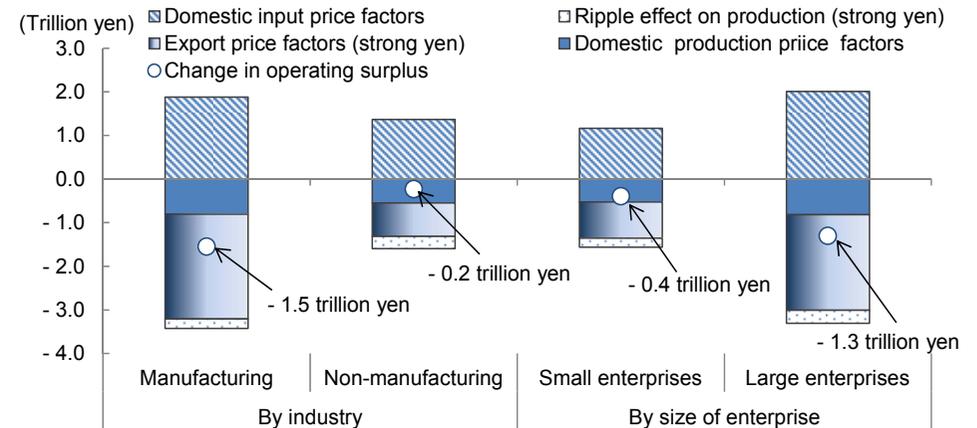
## Impact of a strong yen ①: weighing on profits, particularly of exporters

- The boost to corporate earnings from the weak yen is waning, and the strong yen is forecast to weigh on future earnings.
  - We expect the yen's appreciation since the beginning of the year will weigh on corporate earnings in future. The effects of a 10% appreciation of the yen is estimated to lower ordinary profits by more than 2% (domestic, non-consolidated earnings basis).
    - ✓ However, the reduction in profits from a strong yen is concentrated on large enterprises and manufacturers and there is limited impact on small enterprises, non-manufacturers.
- FY2016 ordinary profits of -4.0% y-o-y, has been downwardly revised from the March forecast (+3.7%). This is attributed to the increase in the forecast price of oil (contributing to a downward revision of almost 7%).



Note: Surveyed companies are all enterprises (all industries) ex. finance and insurance  
 Source: Made by MHRI based upon Ministry of Finance, *Financial Statements Statistics of Corporations by Industry*

## [ Impact of a 10% appreciation of the yen against the dollar on corporate earnings ]



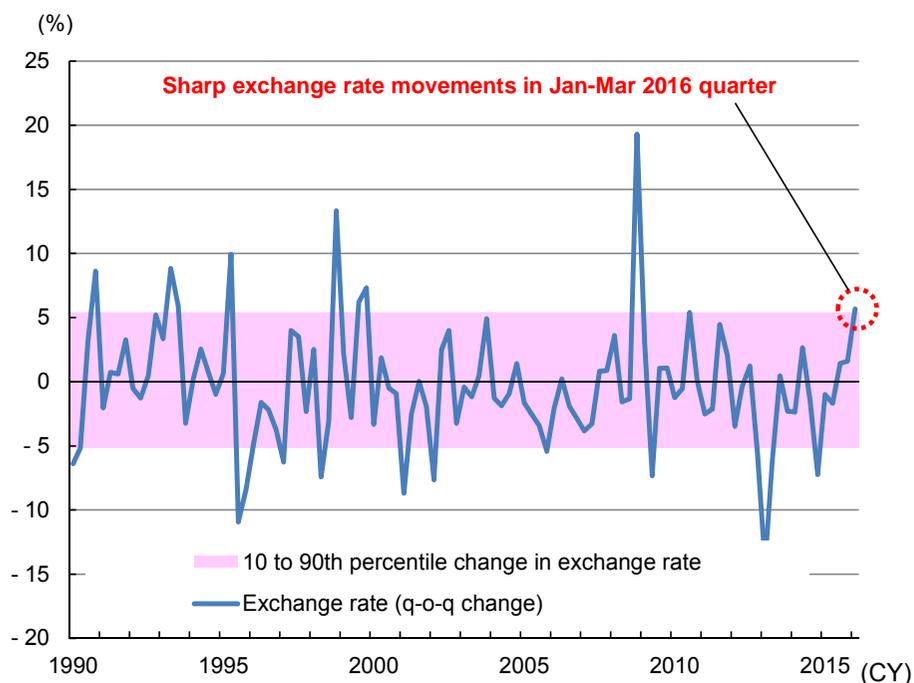
Notes: 1. Impact on the operating surplus of a 10% appreciation of the yen calculated using the Input-Output table by size of enterprise. Since the calculation assumes the 2010 updated input-output structure, the results need to be interpreted with a reasonable degree of latitude.  
 2. We have taken the change in input price to have an imputation rate on the production price of about 30% (based on the results calculated using the MHRI macromodel)  
 3. In terms of by size of enterprise, the raw data (Input-Output table by size of enterprise) for some industries (construction, transportation, etc.) is not separated by size or industry, so they are not included in this calculation. Therefore, the aggregate impact by industry and impact by company are not perfectly matched.

Source: Made by MHRI based upon Ministry of Economy, Trade and Industry, *Input-Output Table 2010*, The Small and Medium Enterprise Agency, *Input-Output Table by size of enterprise*

## Impact of a strong yen ②: “non-linear” – impact on exports increases when the appreciation is sudden

- The downward pressure on exports could intensify if the sharp appreciation of the yen continues.
  - The impact of exchange rate movements on real exports is not necessarily large if the movements are within the usual range of fluctuation. On the other hand, the sensitivity of exports to currency exchange rates is estimated to increase by 2 to 3 fold when there is a sharp appreciation of the yen.
  - In addition, if the yen were to appreciate to between 80 and 90 yen/\$, there would not only be a reduction in exports, but also the risk of realignment of domestic production capacity.

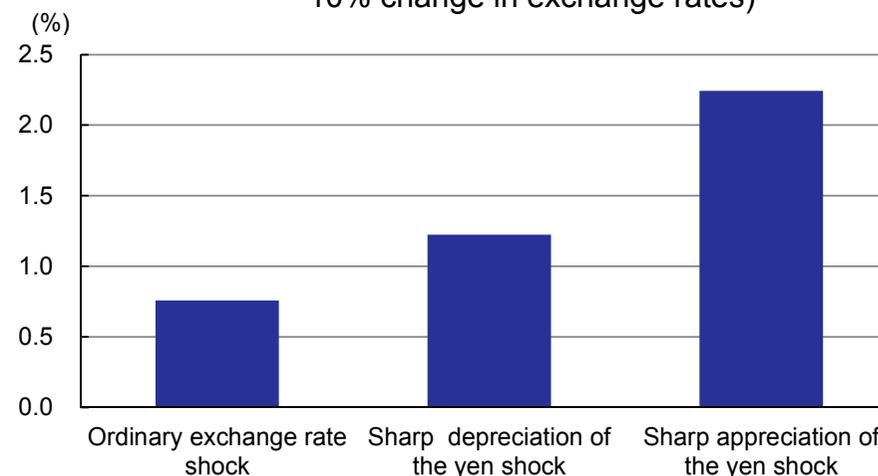
[ Real effective exchange rate (quarterly, q-o-q change) ]



Source: Made by MHRI based upon Bank of Japan, *Foreign Exchange Market*

[ Sensitivity of real exports to exchange rates ]

(Cumulative results up until about 6 months hence, impact of a 10% change in exchange rates)



Note: 1. We estimate the following model (Estimation Period: 1985 Q1 to 2016 Q1)  
 $\text{dlog}(\text{Real exports } t) = c + \beta \text{dlog}(\text{Real exports } t-1) + \sum_{s=0}^1 \gamma_s \text{dlog}(\text{Global industrial production } t-s) + \sum_{s=0}^1 \delta_s \text{dlog}(\text{Real effective exchange rate } t-s) + \sum_{s=0}^1 \theta_{1s} \text{dlog}(\text{Real effective exchange rate } t-s) + \sum_{s=0}^1 \theta_{2s} \text{dlog}(\text{Real effective exchange rate } t-s)$   
 \*Dummy for a sharp appreciation of the yen t-s +  $\sum_{s=0}^1 \theta_{2s} \text{dlog}(\text{Real effective exchange rate } t-s)$   
 \*Dummy for a sharp depreciation of the yen t-s +  $u_t$ . The dummy is taken to be 1 when the sharp appreciation (depreciation) is more than the 90th percentile (less than the 10th percentile) of movement in the real effective exchange rate.  
 2. The ordinary foreign currency shock is calculated at  $\sum_{s=0}^1 \delta_s$ , the sharp appreciation of the yen shock at  $\sum_{s=0}^1 \delta_s + \sum_{s=0}^1 \theta_{1s}$ , and the sharp depreciation of the yen shock at  $\sum_{s=0}^1 \delta_s + \sum_{s=0}^1 \theta_{2s}$ .  
 Source: Made by MHRI based upon Bank of Japan, *Balance of Payments, etc.*

## The Japanese economy is forecast to remain under strong uncertainties due to the slowdown of overseas economies, the earthquake and the strong yen

- The Japanese economy is forecast to remain under strong uncertainties in FY2016 due to factors such as the slowdown of overseas economies, and the impact of the earthquake and strong yen.
  - A rush in demand in the second half of the fiscal year ahead of the consumption tax hike suggests a growth rate of +0.9%, which would exceed the potential rate of growth (calculated by MHRI to be +0.2% to +0.3%).
    - ✓ We leave our forecast the same as in March (+0.9%). While the carryover of the growth rate will increase due to the uptick in Jan-Mar 2016 GDP growth, we have downwardly revised capital investment and exports due to the Kumamoto earthquake and the strong yen.
- The rate of Japan's economic growth to fall to +0.2% in FY2017, due to a backlash to the earlier rush in demand, etc. In the second half of the fiscal year, the economy should pick up and avoid a loss of momentum.

### [ Outlook for the Japanese economy ]

		2014	2015	2016	2017	2015		2016				2017				2018
		FY				Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar
GDP (real)	Q-o-q % ch	-0.9	0.8	0.9	0.2	0.4	-0.4	0.4	0.0	0.5	0.4	0.5	-0.6	-0.3	0.4	0.4
	Q-o-q % ch p.a.	--	--	--	--	1.6	-1.7	1.7	0.1	1.9	1.5	2.0	-2.5	-1.0	1.4	1.6
Domestic demand	Q-o-q % ch	-1.5	0.7	1.0	0.0	0.3	-0.5	0.2	0.1	0.5	0.6	0.8	-0.9	-0.3	0.3	0.4
Private sector demand	Q-o-q % ch	-1.9	0.7	0.7	-0.3	0.5	-0.7	0.1	0.0	0.4	0.6	0.9	-1.4	-0.4	0.4	0.3
Personal consumption	Q-o-q % ch	-2.9	-0.3	1.2	-0.6	0.5	-0.8	0.5	0.1	0.4	0.5	1.6	-2.5	0.1	0.4	0.3
Housing investment	Q-o-q % ch	-11.7	2.4	3.2	-6.6	1.7	-1.0	-0.8	2.2	1.9	0.7	-0.6	-3.5	-3.2	-2.0	-0.8
Capital investment	Q-o-q % ch	0.1	1.6	1.0	0.6	0.7	1.2	-1.4	0.1	0.5	0.9	0.9	-0.8	0.0	0.3	0.3
Inventory investment	Q-o-q contribution, % pt	0.6	0.4	-0.4	0.2	-0.1	-0.1	-0.0	-0.1	-0.1	0.0	-0.4	0.7	-0.3	0.0	0.0
Public sector demand	Q-o-q % ch	-0.3	0.8	1.8	1.1	-0.3	-0.1	0.6	0.4	0.8	0.4	0.4	0.4	-0.0	0.2	0.4
Government consumption	Q-o-q % ch	0.1	1.6	1.5	1.4	0.2	0.7	0.7	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4
Public investment	Q-o-q % ch	-2.6	-2.2	3.0	0.2	-2.2	-3.5	0.3	1.7	2.9	0.5	1.0	0.6	-1.7	-1.0	0.4
External demand	Q-o-q contribution, % pt	0.6	0.1	-0.1	0.1	0.1	0.1	0.2	-0.1	-0.0	-0.2	-0.3	0.3	0.1	0.0	0.0
Exports	Q-o-q % ch	7.9	0.4	1.0	2.7	2.6	-0.8	0.6	-0.4	0.5	0.4	0.3	0.7	0.9	0.9	0.9
Imports	Q-o-q % ch	3.4	-0.1	1.5	2.1	1.7	-1.1	-0.5	0.3	0.7	1.4	1.9	-1.1	0.6	0.7	0.7
GDP (nominal)	Q-o-q % ch	1.5	2.2	1.3	1.8	0.7	-0.2	0.5	-0.5	1.2	0.4	0.7	-0.6	1.2	0.8	0.1
GDP deflator	Y-o-y % ch	2.4	1.4	0.4	1.7	1.8	1.5	0.9	0.2	0.6	0.4	0.5	1.0	1.7	2.2	1.7
Domestic demand deflator	Y-o-y % ch	2.1	-0.2	-0.2	1.8	-0.1	-0.2	-0.5	-0.6	-0.6	-0.1	0.7	1.6	1.8	2.0	1.8

Notes: Figures in the shaded areas are forecasts.

Source: Made by MHRI based upon Cabinet Office, *Preliminary Quarterly Estimates of GDP*

## The y-o-y change of core CPI will trend around 0% in the second half of 2016

### [ Outlook for the Japanese economy (major economic indicators) ]

		2014	2015	2016	2017	2015		2016				2017				2018
		FY				Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar
Industrial production	Q-o-q % ch	-0.5	-1.0	1.1	1.4	-1.0	0.1	-1.0	-0.3	1.6	1.4	1.7	-1.4	-0.1	0.6	1.1
Ordinary profits	Y-o-y % ch	5.1	5.0	-4.0	3.1	8.5	-3.1	-3.9	-6.5	-3.6	-4.4	-0.9	-5.6	1.5	5.9	11.3
Nominal compensation of employees	Y-o-y % ch	1.9	1.7	1.9	1.9	1.7	1.9	2.5	1.9	1.8	1.9	1.7	1.7	1.8	2.0	1.9
Unemployment rate	%	3.5	3.3	3.2	3.1	3.4	3.3	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.0	3.0
New housing starts	P.a., 10,000 units	88.0	92.1	94.4	86.1	91.7	86.8	94.7	94.8	95.4	95.0	92.1	88.6	85.8	84.8	85.2
Current account balance	P.a., JPY tril	8.7	18.0	17.5	18.1	15.9	19.2	19.8	18.7	18.6	16.9	13.8	15.2	19.1	18.9	16.0
Domestic corporate goods prices	Y-o-y % ch	2.7	-3.2	-2.0	3.2	-3.7	-3.7	-3.4	-3.8	-2.9	-1.5	0.4	2.7	2.9	3.6	3.5
Consumer prices (ex fresh food)	Y-o-y % ch	2.8	-0.0	0.1	2.0	-0.1	0.0	-0.1	-0.5	-0.3	0.2	0.9	2.1	2.1	2.0	1.8
Consumer prices (ex fresh food, ex consumption tax)	Y-o-y % ch	0.8	-0.0	0.1	1.1	-0.1	0.0	-0.1	-0.5	-0.3	0.2	0.9	1.2	1.2	1.0	0.8
Consumer prices (ex food (ex alcohol) and energy, ex consumption tax)	Y-o-y % ch	0.6	0.7	0.2	0.8	0.8	0.8	0.7	0.4	0.0	0.1	0.3	0.7	0.8	0.8	0.6
Uncollateralized overnight call rate	%	0.02	-0.00	-0.05	-0.05	0.01	0.04	-0.00	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Yield on newly-issued 10-yr JGBs	%	0.48	0.30	-0.08	-0.09	0.39	0.31	0.06	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.05
Nikkei average	JPY	16,273	18,841	16,100	16,800	19,412	19,053	16,849	16,400	15,700	16,000	16,300	16,500	16,700	16,900	17,200
Exchange rate	JPY/USD	110	120	107	111	122	121	115	108	105	106	108	109	110	112	113
Crude oil price (WTI nearest term contract)	USD/bbl	81	45	47	47	47	42	34	46	48	48	45	45	47	48	49

- Notes: 1. Figures in the shaded areas are forecasts. The readings above may differ from public releases because the rates of change are calculated based on actual results.  
2. Ordinary profits are based upon the *Financial Statements Statistics of Corporations by Industry* (all industries) (ex. finance & insurance, and production, transmission and distribution of electricity).  
3. Quarterly data on the unemployment rate, new housing starts and current account balance are seasonally-adjusted.  
4. Of the finance-related indices, the uncollateralized overnight call rate refers to the rate at the end of term, the yield on newly-used 10Y JGBs refers to the average of the end-of-month rates during the relevant term, and all others are averages during the relevant terms.

Sources: Made by MHRI based upon Cabinet Office, *Preliminary Quarterly Estimates of GDP*, Ministry of Economy, Trade and Industry, *Indices of Industrial Production*, Ministry of Finance, *Financial Statements Statistics of Corporations by Industry, Quarterly*, Ministry of Internal Affairs and Communications, *Labour Force Survey*, *Consumer Price Index*, Ministry of Land, Infrastructure, Transport and Tourism, *Current Survey on Construction Statistics*, Bank of Japan, *Balance of Payments*, *Corporate Goods Price Index*, *Financial and Economic Statistics Monthly*, *Foreign Exchange Rates*, Japan Bond Trading Co., Ltd., *Latest Daily JGB Rates*, Nikkei Inc. and Bloomberg.

## In addition to policies to stimulate short term private sector demand and public works, it is important to accelerate growth strategies

- ❑ A range of economic policies such as the “Plan for dynamic engagement of all citizens” are being prepared ahead of the G7 Ise-Shima Summit.
  - For example, the “Basic Policies” and “Growth Strategies” to be finalized by the end of June, are expected to be decided by the Cabinet during May this fiscal year.
  - In addition, the possibility that the consumption tax hike might be postponed again cannot be ruled out, considering discussions at the G7 Ise-Shima Summit.
- ❑ It will be important for economic stimulus measures anticipated to be formulated this autumn to include policies to stimulate short term private sector demand and public works as well accelerate the growth strategy.

### [ Forthcoming political and economic events ]

Date	Event	Note
Apr	From 14	Kumamoto Earthquake
	1 to 7	Prime Minister Abe's visit to Europe
	17	Passage of supplementary budget (measures to address Kumamoto Earthquake)
	18	Japan's GDP (2016 Q1) While being above the consensus forecast it lacks strength, being flat when averaged out with the Oct-Dec quarter
May	18 to 19	<b>Finalization of 'Plan for dynamic engagement of all citizens', 'Basic Policies' and 'Growth Strategies'</b> Cabinet decision scheduled for end of May
	20 to 21	Meeting of Finance Ministers and Central Bank Governors (G7, Sendai)
	26 to 27	<b>Ise-Shima Summit (G7)</b> <b>Possibility that consumption tax hike will be postponed depending on discussions at the Summit</b>
Jun	1	End of Diet Session
	15 to 16	BOJ Monetary Policy Board meeting
	during	<b>Upper House Election</b> Renewed prospect of Lower House Election on the same day
Jul	28 to 29	BOJ Monetary Policy Board meeting (Outlook Report)
	End	End of meeting on FY2017 budget request overview FY2015 Accounts Surplus to be used to fund supplementary budget (economic stimulus measures)
Aug	15	Japan's GDP (2016 Q2)
	4 to 5	<b>G20 Heads of State meeting (China, Hangzhou)</b>
Sep	15 to 16	BOJ Monetary Policy Board meeting
	Autumn	<b>Formulation of supplementary budget (economic stimulus) expected</b>

Source: Made by MHRI based upon media reports

### [ Details of anticipated economic policies ]

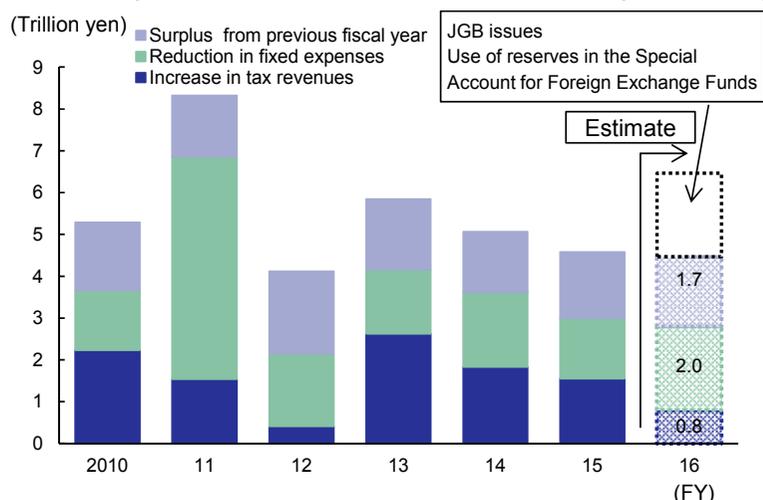
❑ Stimulate private sector demand
▪ Issue product coupons and travel vouchers with premium
▪ Promote change in holidays to expand domestic travel market
▪ Hold back increases in health insurance and nursing insurance premiums
▪ Tax subsidies to promote fixed business investment to increase productivity, enhance tax system to promote higher income
❑ Disaster prevention and public works
▪ Improve earthquake resistance of public facilities such as government office buildings, and hospitals, etc.
▪ Efficient improvements to infrastructure that takes account of cost-effectiveness
❑ Growth Strategy
▪ Increase of childcare facilities and workers in a bid to address the shortage of nurseries
▪ Achieve 'Equal Pay for Equal Work'
▪ Increase investment into energy and the environment
▪ Increase exports of infrastructure systems

Source: Made by MHRI based upon Cabinet Office, Council on Economic and Fiscal Policy, Industrial Competitiveness Council, etc.

## 4 to 5 trillion yen in financial resources can be secured without the issuance of additional JGBs

- 4 to 5 trillion yen in financial resources can be secured for economic measures (FY2016 supplementary budget) without issuance of additional JGBs.
  - In recent years, the increase in tax revenues and spending cuts have secured financial resources of 4 to 6 trillion per year. Although a rise in corporate income tax seems unlikely in FY2016 due to the strong yen, the reduction of fixed expenses (the reduction in national debt service expenses) should progress due to lower interest rates.
- We estimate the budget for earthquake measures to be in the order of 1.5 trillion yen in total.
  - General contingency reserves (approx. 0.4 trillion yen) in the FY2016 initial budget and the first supplementary budget (approx. 0.8 trillion yen) are scheduled to fund emergency measures such as temporary housing, livelihoods of disaster victims and clearing debris. Subsequently, additional fiscal spending is expected for measures to restore the disaster area.

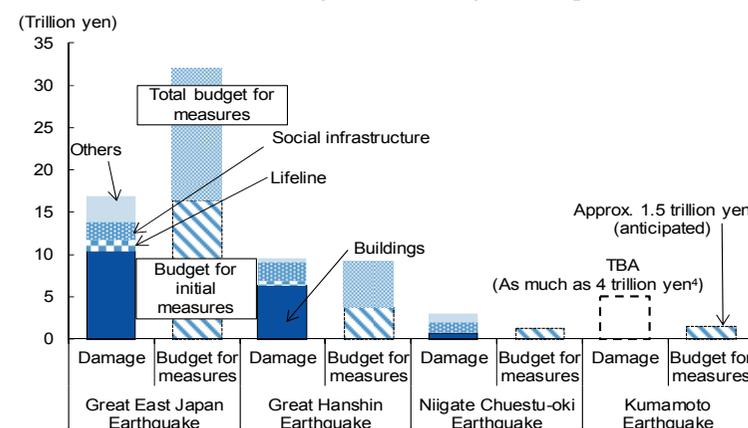
[ Past surplus related to account settlement of revenue and expenditure and reduction in fixed expenditure ]



- Note: 1. The surplus related to account settlement of revenue and expenditure is the amount if applied in total to the supplementary budget by enactment of a special law to exempt application of Article 6 of the Public Finance Act (more than half of the surplus related to account settlement of revenue and expenditure is used to redeem JGBs).  
 2. FY2011 needs to consider the impact of the Great East Japan Earthquake.  
 3. FY2016 are values calculated by MHRI

Source: Made by MHRI based upon Ministry of Finance

[ Amount of damage and budget for measures to deal with past earthquakes ]



- Note: 1. The budget for the initial measures for the Great East Japan Earthquake is the total of FY2011 supplementary budgets.  
 2. The budget for the initial measures for the Great Hanshin Earthquake is the aggregate of the FY1994 2<sup>nd</sup> supplementary budget, and the FY1995 1<sup>st</sup> and 2<sup>nd</sup> supplementary budgets.  
 3. The budget for the initial measures for the Niigata Chuetsu-oki Earthquake is the expenditure for disaster measures in the FY2004 supplementary budget.  
 4. According to media reports, the Cabinet Office estimates that damages due to the Kumamoto earthquake run above 4 trillion yen.

Source: Made by MHRI based upon Ministry of Finance

## Growth rates of +0.6% in FY2016 and +1.0% in FY2017 if impact of consumption tax is excluded

- When the impact of the consumption tax hike is excluded, the FY2016 growth rate is forecast to drop to +0.6%. On the other hand, FY2017 growth rate is forecast to rise to +1.0%.
  - In FY2016, the growth rate would drop about 0.3%pts if the rush of demand ahead of the consumption tax hike is excluded,.
  - In FY2017, the exclusion of the backlash to the rush in demand and the increase in household burden would ease the downward pressure by 0.7 to 0.8%pts.
    - ✓ The backlash to the rush in demand has an impact of approximately 0.5%pts, while the impact from the increased burden on households (decline in real incomes) is about 0.2 to 0.3%pts.

[ Outlook for the Japanese economy (depending on whether or not the consumption tax is raised as scheduled) ]

Excluding the impact of a consumption tax hike (reference estimate)

		2014	2015	2016	2017
		FY			
GDP (real)	Q-o-q % ch	- 0.9	0.8	0.6	1.0
Domestic demand	Q-o-q % ch	- 1.5	0.7	0.6	1.0
Private sector demand	Q-o-q % ch	- 1.9	0.7	0.1	0.7
Personal consumption	Q-o-q % ch	- 2.9	- 0.3	0.5	1.0
Housing investment	Q-o-q % ch	- 11.7	2.4	0.7	- 0.9
Capital investment	Q-o-q % ch	0.1	1.6	0.6	1.0
Inventory investment	Q-o-q contribution, % pt	0.6	0.4	- 0.3	- 0.1
Public sector demand	Q-o-q % ch	- 0.3	0.8	1.9	1.7
Government consumption	Q-o-q % ch	0.1	1.6	1.5	1.7
Public investment	Q-o-q % ch	- 2.6	- 2.2	3.2	1.7
External demand	Q-o-q contribution, % pt	0.6	0.1	0.0	0.0
Exports	Q-o-q % ch	7.9	0.4	1.1	2.8
Imports	Q-o-q % ch	3.4	- 0.1	0.8	2.5

In the case that the tax is hiked on schedule  
(main scenario)

		2014	2015	2016	2017
		FY			
GDP (real)	Y-o-y % ch	- 0.9	0.8	0.9	0.2
Domestic demand	Y-o-y % ch	- 1.5	0.7	1.0	0.0
Private sector demand	Y-o-y % ch	- 1.9	0.7	0.7	- 0.3
Personal consumption	Y-o-y % ch	- 2.9	- 0.3	1.2	- 0.6
Housing investment	Y-o-y % ch	- 11.7	2.4	3.2	- 6.6
Capital investment	Y-o-y % ch	0.1	1.6	1.0	0.6
Inventory investment	Y-o-y contribution, % pt	0.6	0.4	- 0.4	0.2
Public sector demand	Y-o-y % ch	- 0.3	0.8	1.8	1.1
Government consumption	Y-o-y % ch	0.1	1.6	1.5	1.4
Public investment	Y-o-y % ch	- 2.6	- 2.2	3.0	0.2
External demand	Y-o-y contribution, % pt	0.6	0.1	- 0.1	0.1
Exports	Y-o-y % ch	7.9	0.4	1.0	2.7
Imports	Y-o-y % ch	3.4	- 0.1	1.5	2.1

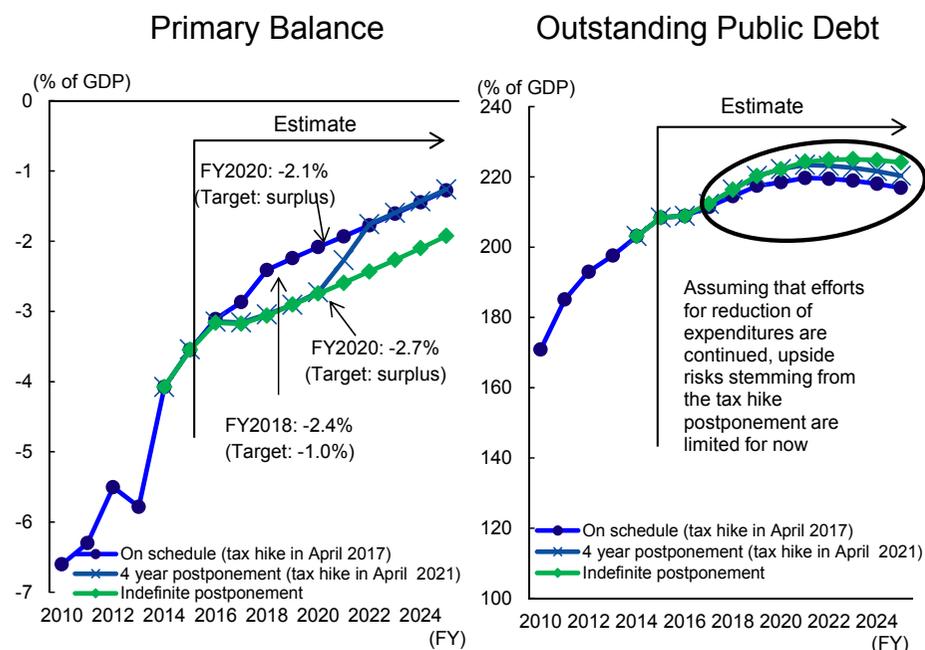
Notes: Figures in the shaded areas are forecasts.

Source: Made by MHR based upon Cabinet Office, *Preliminary Quarterly Estimate of GDP*

## Even though the postponement of the consumption tax hike would delay fiscal consolidation, the risk of a sharp rise of yields is still low

- If the consumption tax hike is postponed once again, the primary balance would drop by about 4 trillion yen (less than 1% of GDP). Even so, assuming that ongoing efforts to reduce expenditures are continued, the postponement would not lead to an immediate rise of concerns about fiscal conditions since it is possible to curb the rise of outstanding public debt.

[ Impact of a consumption tax delay upon fiscal conditions ]  
 (On schedule, 4-year postponement, indefinite postponement)



Source: Made by MHRI based upon Cabinet Office, *National Accounts*

[ Reference. Merits/Demerits for periods of consumption tax hike delay ]

**The demerits of a 4-year delay are comparatively small**

Focal points	Period of delay				
	1 year (Apr 2018)	2 years (Apr 2019)	3 years (Apr 2020)	4 years (Apr 2021)	Indefinite
Fiscal consolidation for FY2020 <sup>1</sup>	△	△	×	×	—
Combination with the full implementation of invoice requirements	×	×	×	○	○
Onus on the current administration to increase taxes <sup>2</sup>	○	△	△	△	×
Avoid economic downturn with the Olympic effect	×	○	◎	△	?
Secure freedom of dissolving the lower house <sup>3</sup>	×	○	△	△	○
Exit deflation	×	△	○	○	○
Consideration of upper house election <sup>4</sup>	○	×	○	○	?

- Note:
1. Depending on the balance sheet date of a company, the period of consumption tax hike will differ from the period when the increased portion starts to flow into the national treasury so the increase in tax revenues in the first fiscal year of the tax hike will be somewhat restrained.
  2. Prime Minister Abe's term of office as President of the LDP is until September 2018. However, revisions to the rules on the election of the LDP President could lead to an extension from "2 consecutive 3 year periods i.e., 6 years" to "3 consecutive 3 year periods i.e., 9 years".
  3. Securing the freedom to dissolve the lower house is the freedom to dissolve the lower house within the terms of office of current lower house members (up until December 2018). A one year extension would make dissolution around April 2018 difficult, so the table is marked with an X. In addition, in the case of a 3 year (4 year) extension, the term of office for new members if the lower house is dissolved during FY2016 (FY2017) would be until FY2020 (FY2021), and while the tax hike and timing of the election would overlap, the timing could be further delayed by another dissolution of the lower house.
  4. The next upper house election is forecast for the summer of 2019.

Source: Made by MHRI with reference to various media reports



## **III. The Asian Economy**

**Asia's economic growth rate will remain flat  
due to China's economic slowdown**

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## Asia's economic growth rate is forecast to stay flat overall

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- ❑ The Asian economy slowed down in the Jan-Mar quarter of 2016. Amid the ebb and flow of exports, the self-sustained recovery of domestic demand lacked momentum. The countries of the region took economic stimulus measures to underpin their economies. China only registered a minor economic slowdown, in contrast to some countries which suffered major slowdowns due to country-specific factors.
- ❑ Looking ahead to 2017, we anticipate improvements in the export environment. Even so, China's economic slowdown is expected to serve as a drag and keep overall Asian economic growth flat.
- ❑ In China, a mild economic slowdown - mainly in investment - will continue, amid the ongoing implementation of economic stimulus measures amid lingering excess capacity and pressure to cut debt.
- ❑ Exports of Asia (ex. China) will gradually recover, driven by tailwinds such as the US economic recovery in 2017. Since there is limited scope for economic stimulus measures due to fiscal conditions and inflation trends, the supportive effect of policy measures will gradually wane, and keep the pace of economic recovery sluggish.
- ❑ A risk factor for the Asian economy is the increase of defaults in China. It would be necessary to keep a close eye upon the increase of defaults, given the possible rise of financial market risks depending upon forthcoming developments and methods of NPL disposal.

## Asia: Growth rate to be flat at +6% in 2016 to 2017

- Despite the improvement in the export environment, we expect this will be undermined by a slowdown in China with flat growth for Asia as a whole of +6% in 2016 to 2017.
  - In China, the excess production capacity and pressure to reduce debt will gradually ease with economic stimulus measures, and the growth rate will gradually slow.
  - NIEs, which are heavily reliant on exports, will witness a slight improvement in their growth rates due to the gradual recovery of economies such as the US.
  - In ASEAN5, despite a gradual recovery in exports, the recovery in domestic demand is mixed, and the overall growth rate is likely to be flat.
  - In India, the growth rate is expected to be at high levels within Asia, particularly for consumption, due to the large wage hike for public servants.

### [ Overview of Forecasts for Asian Economies ]

	2011	2012	2013	2014	2015	2016	2017	2016	2017
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Forecast)	(Forecast)	(Previous: March forecast)	
<b>Asia</b>	7.4	6.4	6.4	6.3	6.1	6.0	6.0	6.0	6.0
<b>China</b>	9.5	7.7	7.7	7.3	6.9	6.6	6.5	6.6	6.5
<b>NIEs</b>	4.1	2.3	2.9	3.4	2.0	1.8	2.2	2.0	2.2
South Korea	3.7	2.3	2.9	3.3	2.6	2.3	2.5	2.3	2.5
Taiwan	3.8	2.1	2.2	3.9	0.7	1.1	1.8	1.4	1.8
Hong Kong	4.8	1.7	3.1	2.7	2.4	1.5	1.8	1.9	1.8
Singapore	6.2	3.7	4.7	3.3	2.0	1.8	2.3	1.8	2.3
<b>ASEAN5</b>	4.7	6.2	5.0	4.6	4.7	4.6	4.5	4.5	4.5
Indonesia	6.2	6.0	5.6	5.0	4.8	4.9	4.9	4.7	4.7
Thailand	0.8	7.2	2.7	0.8	2.8	2.8	2.7	2.5	2.7
Malaysia	5.3	5.5	4.7	6.0	5.0	3.7	4.3	3.8	4.3
Philippines	3.7	6.7	7.1	6.1	5.8	6.1	5.5	6.0	5.5
Vietnam	6.2	5.3	5.4	6.0	6.7	6.0	5.7	6.0	5.7
<b>India</b>	6.6	5.6	6.3	7.0	7.3	7.5	7.5	7.6	7.5
<b>Australia</b>	2.6	3.6	2.0	2.6	2.5	2.6	2.5	2.6	2.5
<b>(Ref) Asia ex. China and India</b>	4.5	4.6	4.2	4.1	3.7	3.5	3.7	3.5	3.6
<b>(Ref) Asia ex. China</b>	5.4	5.0	5.1	5.4	5.3	5.3	5.4	5.3	5.4

Notes: 1. Real GDP growth rate (y-o-y). Shaded areas are forecast values. Unshaded areas are actual values

2. Averages are calculated from the IMF's 2014 GDP share (Purchasing Power Parity base)

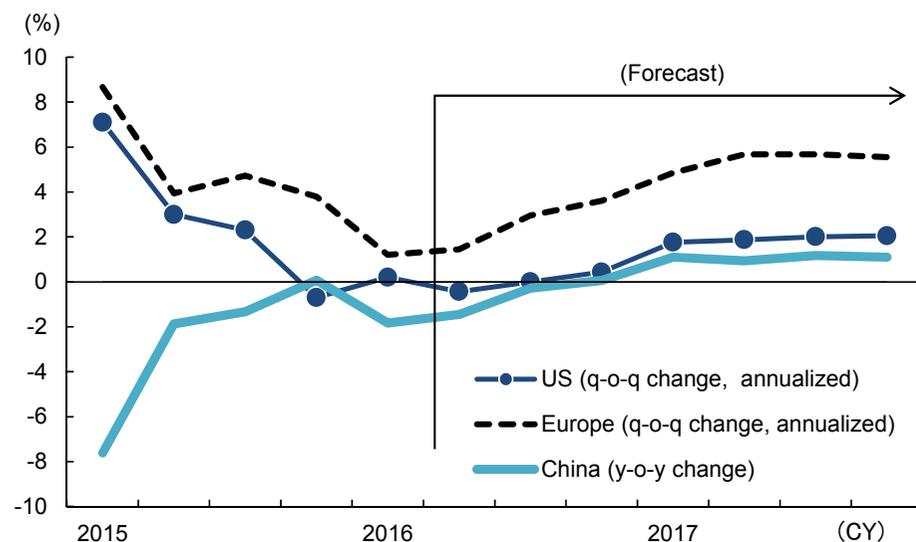
3. Rate of growth in India refers to IMF data prior to 2012 and the Ministry of Statistics and Programme Implementation since 2013

Source: Made by MHRI based upon each country's statistics bureau, CIC Data and IMF materials

## Asia: Although the export environment should improve, conditions will be undermined by China's slowdown

- Despite a gradual improvement of the export environment toward 2017, China's economic slowdown will serve as a drag and keep the recovery of the overall Asian economy tepid.
  - Despite ongoing adjustment pressures on excess production capacity and debt, China will continue to implement economic stimulus measures to underpin the economy and keep the slowdown limited.
    - ✓ While imports will pick up with the progress in inventory adjustments, the pace will be slow.
  - In other parts of Asia, we forecast a moderate recovery of exports due to the economic recoveries in Europe and Asia toward 2017.
    - ✓ Even so, given the limited scope for economic stimulus measures in light of fiscal conditions and inflation trends, the supportive impact of policy will gradually wane, and keep the pace of recovery in the growth rate tepid.

[ Real imports by the US, Europe and China (forecast) ]



Source: Made by MHRI based upon each country's statistics bureau and CEIC Data

[ Major economic stimulus measures announced since the beginning of 2016 ]

	Monetary Policy	Fiscal Policy
China	March, cut to reserve deposit rate	Expansion of fiscal deficit in FY2016
Taiwan	March, interest rate cut	—
Singapore	April, Monetary easing (note)	—
Indonesia	Jan, Feb, May, interest rate cuts	Acceleration of the pace of budget execution
India	April, interest rate cut	—
Thailand	—	Short-term consumer stimulus measures in April
Hong Kong	—	Large increase of FY2016 budget

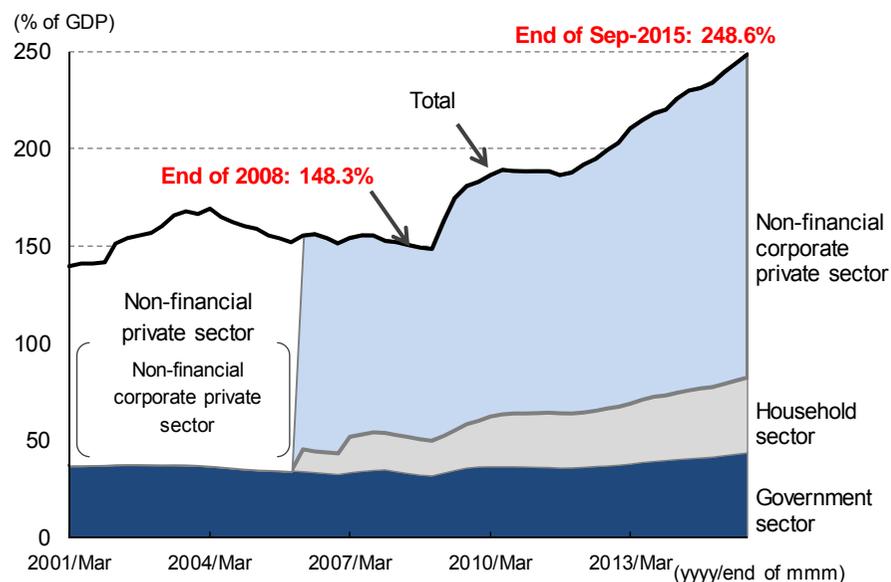
Note: In terms of the nominal effective rate for the Singapore dollar that is the target of monetary policy, there was a shift from fostering an upper limit to fostering flat levels.

Source: Made by MHRI

## China: the NPL ratio has increased and corporate bond defaults have also risen as a result of the expansion of corporate debt

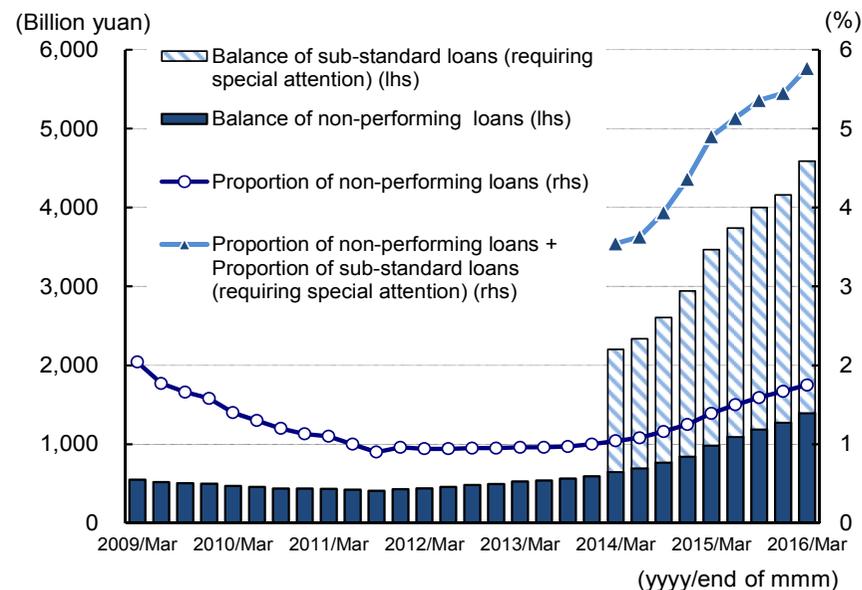
- ❑ Corporate debt is continuing to rise, triggered by economic stimulus measures that were introduced following the global financial crisis.
  - The ratio of non-financial sector debt to GDP stood at about 150% as of the end of 2008, and continued to rise from 2009, reaching 248.6% as of the end of September 2015. In particular, note the high level of debt in the debt of non-financial corporate private sector (including state-owned enterprises).
- ❑ The proportion of non-performing loans is continuing to rise. Defaults on corporate bonds and cancellation of issues are also increasing, revealing the fraying of excessive debt.
  - As of the end of March 2016, the NPL ratio stood at 1.75%. The ratio would rise to 5.8% if sub-standard loans (requiring special attention) are included.
  - Corporate bond defaults are also rising since March 2016. Defaults by state-owned enterprises are also being tolerated in a bid to avoid moral hazard.

[ China's outstanding debt (non-financial sector) ]



Source: Made by MHRI based upon BIS

[ Non-performing loans of Chinese commercial banks ]

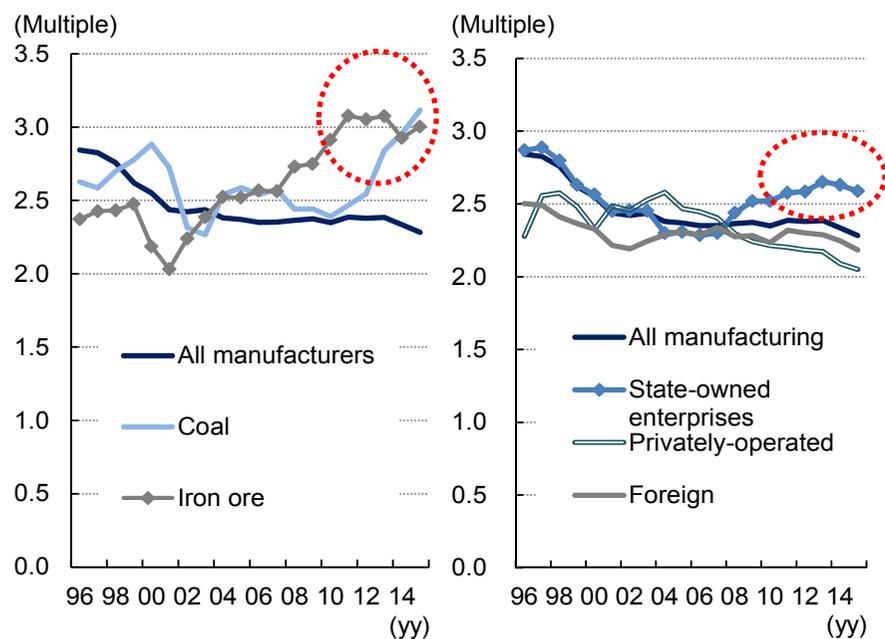


Source: Made by MHRI based upon China Banking Regulatory Commission and CEIC Data

## China: Defaults are expected to keep rising along with the elimination of excess production capacity, etc.

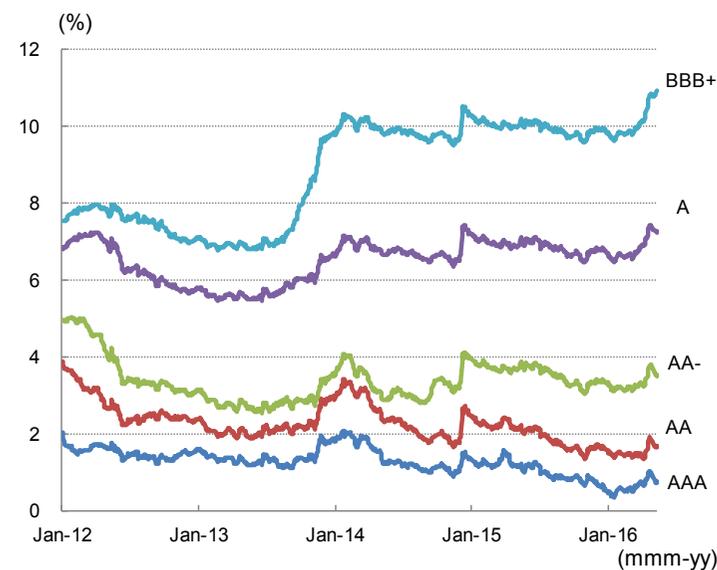
- We expect an increase in corporate bond defaults and non-performing loans along with the elimination of excess production capacity and reforms to state-owned enterprises.
  - Financial leverage is peaking at industries with excess production capacity such as coal and iron ore and at state-owned enterprises. The deleveraging accompanying the elimination of excess production capacity and reforms of state-owned enterprises is expected to lead to an increase in corporate bond defaults and non-performing loans.
  - According to the IMF, the amount of borrowings by companies with interest coverage ratios of less than 1 equates to about 14% of borrowings by all companies (2015).
    - ✓ This ratio is rising in recent years, suggesting that the overall capacity of companies to service debt is falling.
- There is also the possibility of a substantial increase in financial risk if the capacity of the government to deal with a possible chain of defaults is brought into question.

[ Financial leverage (by company type and industry type) ]



Source: Made by MHIR based upon the National Bureau of Statistics of China

[ Corporate bond spreads ]



Source: Made by MHIR based upon Wind

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