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FY2015, FY2016, FY2017 Economic Outlook

- Note the risk of the EM slowdown setting off a global contagion -

February 16, 2016

Mizuho Research Institute

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Building the future with you

Key points of our forecast

- The emerging market (EM) slowdown is spreading to developed market (DM) economies, triggering a sharp downward revision of the global economic outlook.
- The fall of crude oil prices and EM slowdown centering around China is setting off alarms regarding the global economy and financial sector. The financial market turmoil is leading to the contraction of corporate and household sentiment.
- Given the low level of crude oil prices and moderation of the Chinese economy, keep a close watch upon a further downturn.
- Note the risk of the third phase of the global balance sheet adjustment process (Phase 3: the EM debt crisis) spreading to a global recession (Phase 4).
- Amid rising concerns regarding the downside risks of the global economy, the Federal Reserve Board (FRB) is expected to put off its interest rate hike. By the same token, the Bank of Japan (BOJ) and European Central Bank (ECB) is expected to take further monetary easing steps. There is also the possibility of the G-20 taking coordinated policy measures comprised mainly of fiscal expansion.
- Even though the Japanese economy should gradually pick up, it will remain vulnerable to downside risks. Given the rise of concerns regarding Japan's downside risks stemming from the slowdown of overseas economies, Japan may opt to forgo its next consumption tax hike.
- As Japan's inflation rate dips below zero again, the key to success of the BOJ's further monetary easing is its coordination with the government.

I. Overview

Note downside risks of the global economy leading to credit tightening around the world

Overview – note the risk of the EM slowdown spilling over to the DM economies, leading to a global recession

- We expect the global economy (the weighted average of countries and regions included in MHRI's forecast) to slow down in 2016 (+3.1%) for two years in a row (2014: +3.5%, 2015: +3.2%). In 2017, overall global economic conditions should recover along with the recovery of DM economies and a halt to the deterioration of commodity-producing countries.

- The US economy is moderating, dragged down by the appreciation of the dollar and EM slowdown. A further interest rate hike is unlikely during 2016 in view of the slowdown of the economy and labor market conditions. In the Eurozone, the ECB will implement further monetary easing measures, given the weakness of economic conditions and low inflation. Since Japan is also vulnerable to downside risks, the BOJ will take further monetary easing measures.

- The EM economies should continue to slow down for the time being. In China, the state of actual economic conditions which are felt are weaker than the data on real GDP growth. The economic recovery among other EM economies will likely remain tepid, with Russia and Brazil projected to record growth in negative territory for the second year in a row.

- As the EM slowdown spills over to the DM economies, the possibility of a global recession scenario is gradually increasing. Keep a close eye upon the risk of a further EM slowdown and crude oil price fall leading to the escalation of financial market turmoil and credit risks.

- Note the risks of sporadic economic events spreading to the financial sector through the credit market and setting off a global contagion.

The global economy is slowing down, with a recovery only expected from 2017

- The growth rate for the total of the forecast area is expected to fall in 2016, following a decline in 2015, with no recovery until at least 2017.
- 2016 growth rates have been downwardly revised for Japan, the US, Eurozone, Asia, Australia, Brazil, and Russia, and there has been a large downward revision for the global economy as a whole.
  - In 2017, overall global economic conditions are expected to recover along with the recovery of DM economies and a halt to the deterioration of commodity-producing countries, despite the sluggish momentum for recovery of EM.

[Outlook on the global economy]

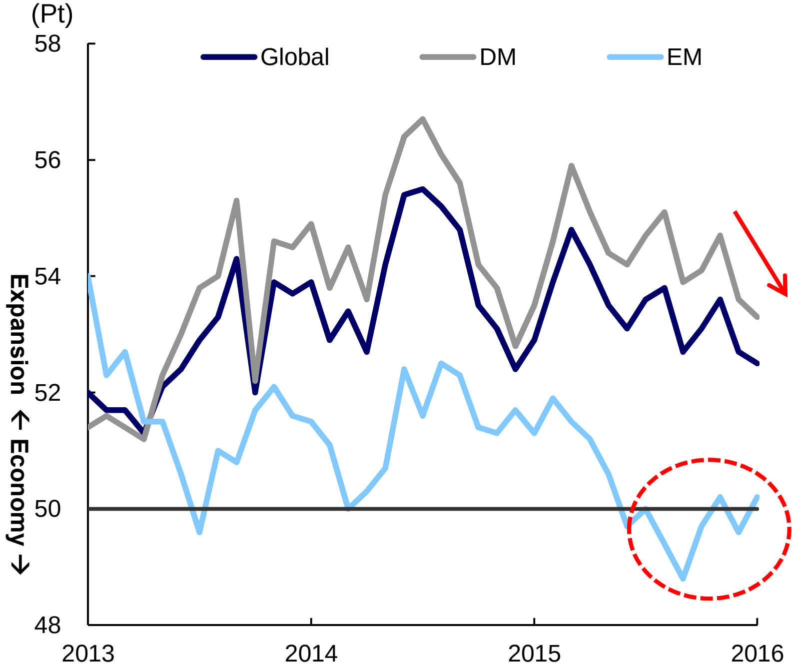
					(Y-o-y % change)	(Y-o-y % change)		(% point)	
Calendar year	2013 (Actual)	2014 (Actual)	2015 (Forecast)	2016 (Forecast)	2017 (Forecast)	2015 (Forecast as of December)	2016	2015 (Breadth of revision from December)	2016
Total of forecast area	3.3	3.5	3.2	3.1	3.6	3.3	3.6	-0.1	-0.5
Japan, US. Eurozone	0.8	1.5	1.8	1.4	1.7	1.8	1.9	—	-0.5
US	1.5	2.4	2.4	1.8	2.3	2.4	2.5	—	-0.7
Eurozone	-0.3	0.9	1.5	1.2	1.4	1.5	1.4	—	-0.2
Japan	1.4	-0.0	0.4	0.5	0.6	0.6	1.0	-0.2	-0.5
Asia	6.4	6.3	6.1	6.0	6.0	6.2	6.1	-0.1	-0.1
China	7.7	7.3	6.9	6.6	6.5	7.0	6.7	-0.1	-0.1
NIEs	2.9	3.4	2.0	1.9	2.1	2.0	2.4	—	-0.5
ASEAN5	5.1	4.6	4.7	4.4	4.5	4.6	4.4	0.1	—
India	6.3	7.0	7.3	7.6	7.5	7.4	7.7	-0.1	-0.1
Australia	2.0	2.6	2.3	2.5	2.5	2.3	2.6	—	-0.1
Brazil	3.0	0.1	-3.8	-3.5	0.0	-3.7	-2.5	-0.1	-1.0
Russia	1.3	0.7	-3.7	-3.3	0.5	-4.1	-0.4	0.4	-2.9
Japan (FY)	2.0	-1.0	0.7	0.9	0.3	1.0	1.5	-0.3	-0.6
Crude oil price (WTI, USD/bbl)	98	93	49	29	30	49	52	—	-23

Note: The total of the forecast area is calculated upon the 2013 GDP share (PPP) by the IMF.
Sources: Made by MHRI based upon releases by the International Monetary Fund (IMF) and statistics of relevant countries and regions.

EM instability and downside risks to the global economy – EM slowdown spreading to DM

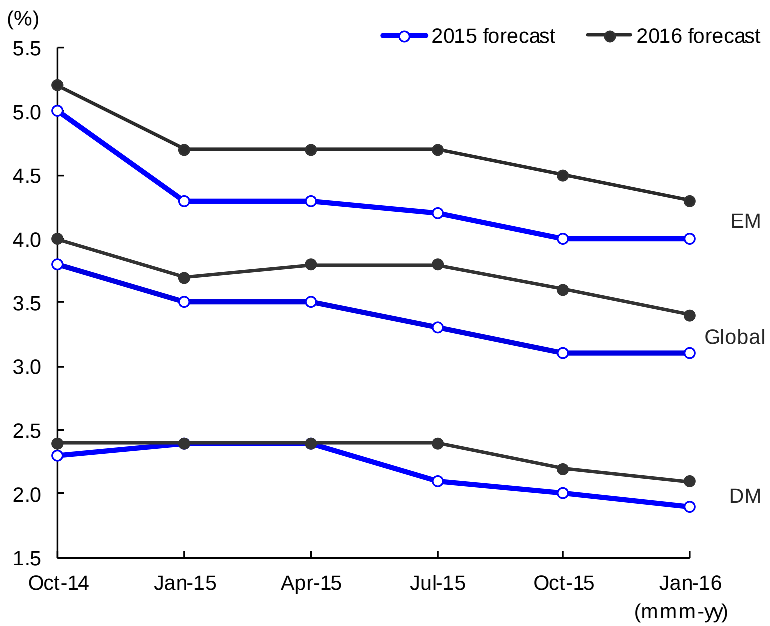
- The EM slowdown (mainly in China) is spreading to DM, leading to a global economic slowdown.
  - Amid the ongoing weakness of business sentiment in the EM, DM economic sentiment indices are also falling.
  - In its January 2016 *World Economic Outlook*, the IMF once again downwardly revised its forecast growth rates for 2016 for both EM and DM, following a similar move in October 2015.

[Composite PMI of DM and EM economies]



Source: Made by MHRI based upon Markit.

[Trends in IMF *World Economic Outlook*]

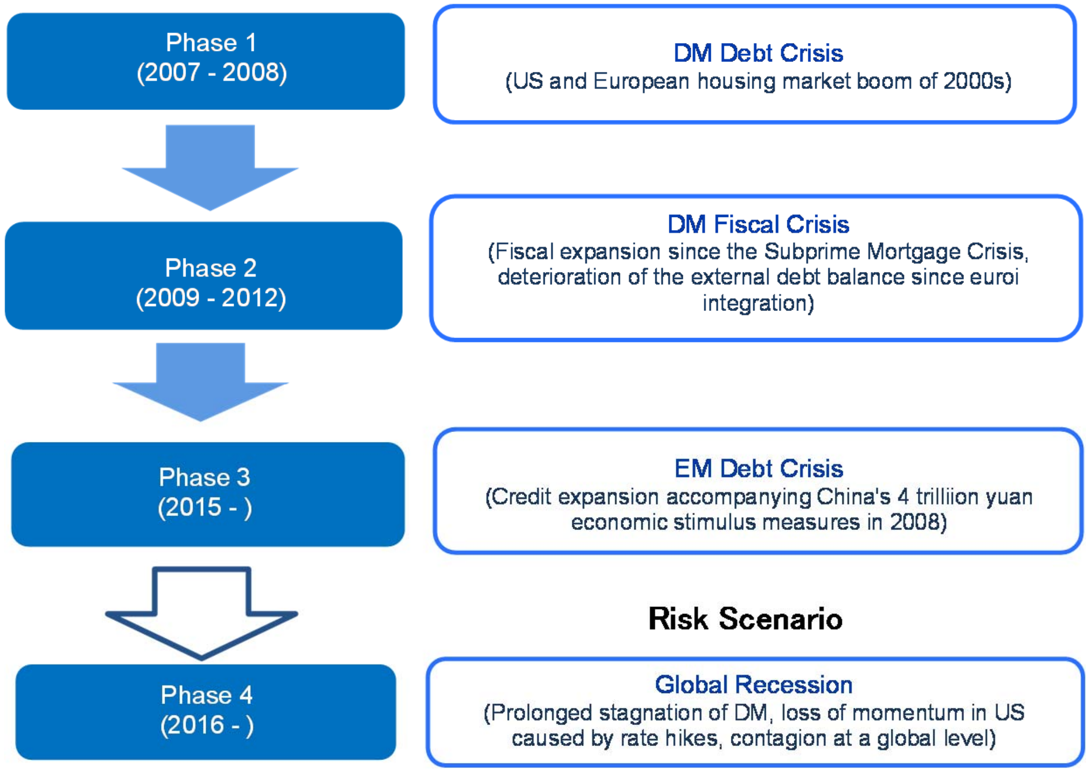


Source: Made by MHRI based upon IMF. *World Economic Outlook Update (January 2016).*

Amid balance sheet adjustments in EM economies, note the rise of concerns of a global recession

- EM instability will persist for some time, but the biggest risk is that the EM slowdown could spread to DM, leading to a worldwide recession.
  - The global economy has faced a protracted period of balance sheet adjustments since the financial crisis, reaching a third phase with debt adjustments by EM.
    - ✓ EM economies facing balance sheet adjustments are vulnerable to economic downturns through China's economic slowdown and fall commodity prices.

[Phases of global balance sheet adjustment]

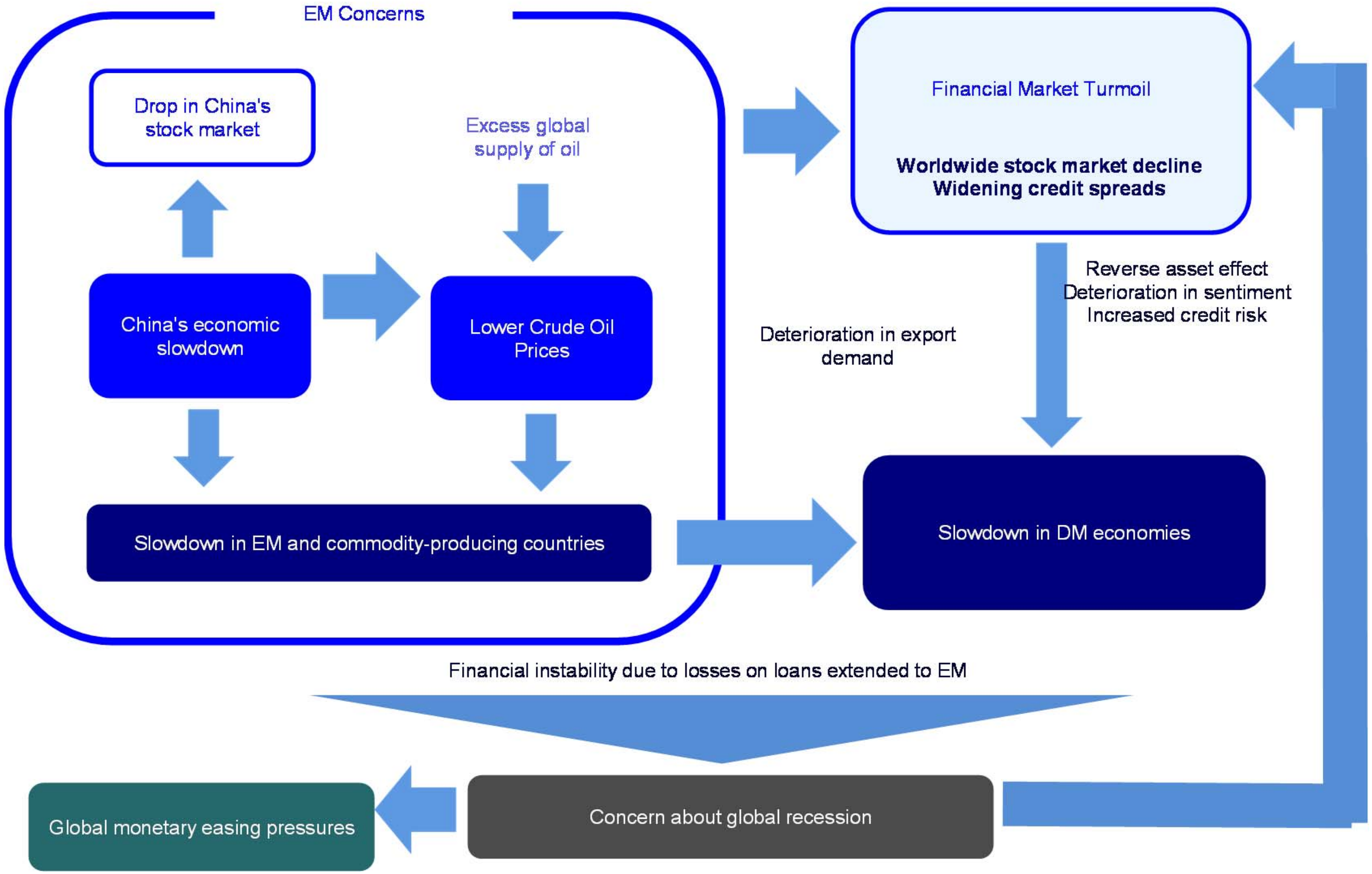


Source: Made by MHRI.

The year started out with financial market turmoil due to the US economic slowdown in addition to concerns regarding China and fall of crude oil prices

- Behind the risk off mode in the financial markets are fears that the EM slowdown could lead to downward pressures on the entire global economy.

[Channels of contagion of EM concerns]

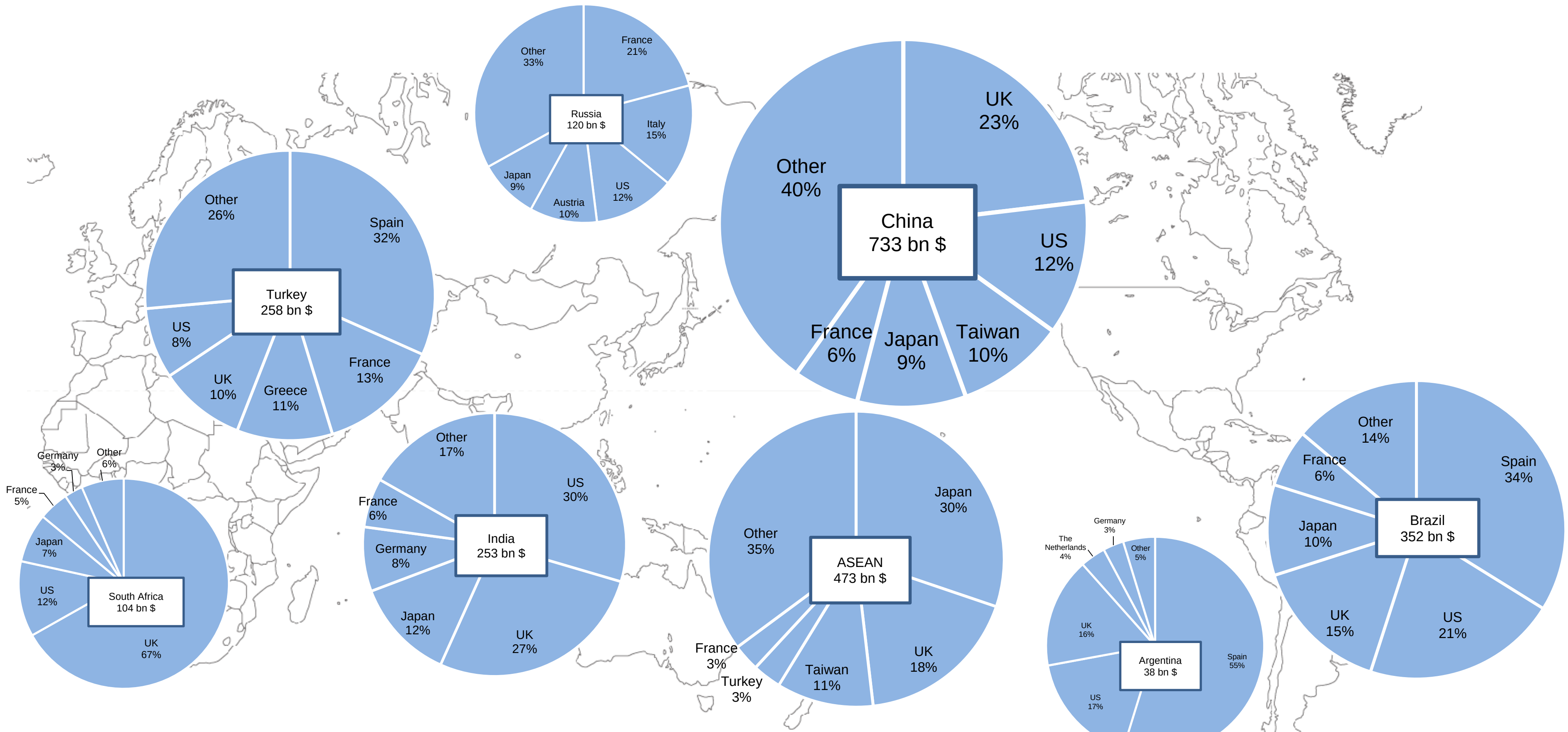


Source: Made by MHRI.

Risk of a contagion - EM debt impairment will cause financial instability in DM

- The US and UK have the highest credit ratios to China, the largest borrower country. Spain is the largest creditor to Brazil, Argentina and Turkey.
- Japan is the largest creditor to ASEAN, while France is the largest creditor to Russia.

[International borrowings by major EM (as at end of September 2015)]



Note: 1. Final risk base. Cross border credit (excluding credit to own EM country) to EM from major countries (24)..
2, ASEAN refers to 5 countries of Vietnam, Thailand, the Philippines, Malaysia, and Indonesia.
Source: Made by MHRI based upon BIS, *International Banking Statistics.*

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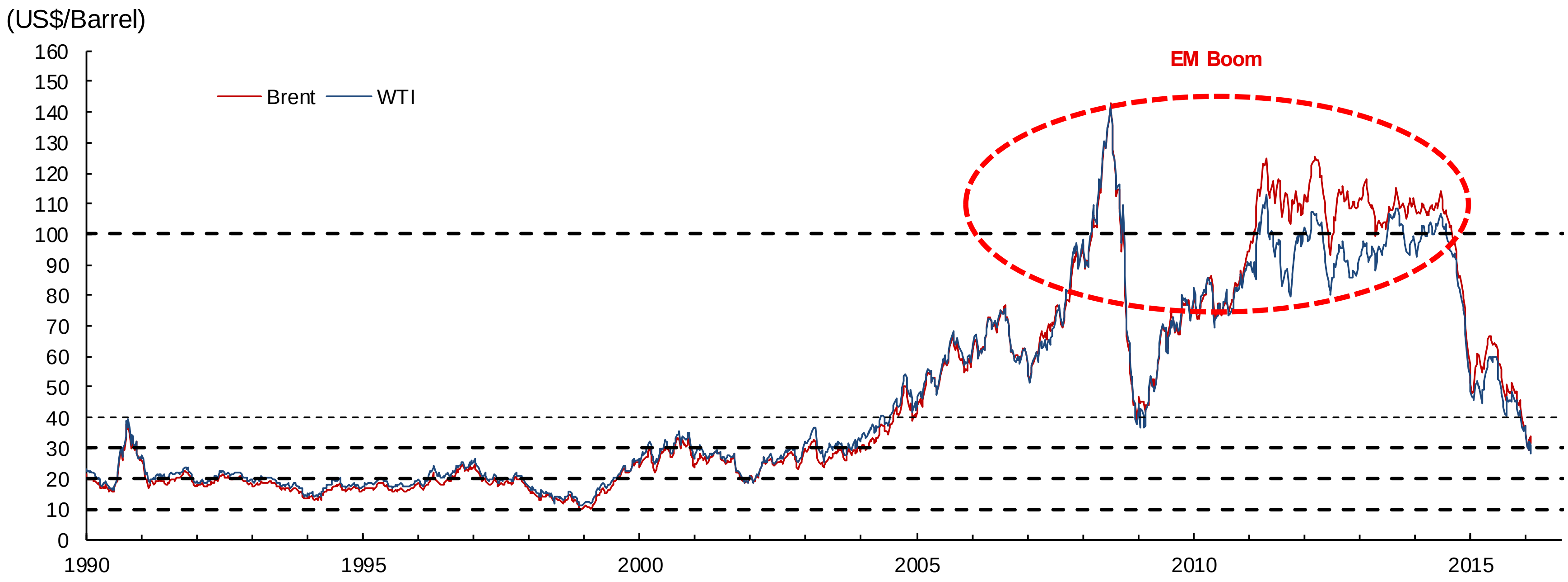
Collapse of the oil price super cycle - cheap oil cometh

- The oil price super cycle which started in the mid-2000s has come to an end.
  - The super cycle stems from the high growth in EM as exemplified by China's rapid industrialization and urbanization.
  - The rise of EM demand - even at the expense of higher energy costs - served as the driver of the rise of commodity prices.
- While the commodity market downturn is a boon for commodity-importing countries, it is a risk factor for economic and financial structures that have adapted to high oil and commodity prices.
  - In the EM, facing an economic slowdown, the currency depreciation accelerated following the sharp fall of crude oil prices. This resembles conditions during the period from the 1980s to 1990s.

[Long-term trend in the crude oil market]



Source: Made by MHRI based upon Bloomberg materials

The 'flood' of global yields and sinking US lifebuoy raise concerns about global currency wars

- In addition to the currency depreciations caused by negative interest rates in Europe and Japan, there are concerns that China will devalue the renminbi.
  - The EM lifebuoy has sunk, and the US lifebuoy is sinking in 2016, raising concerns about the prospect of global currency wars.
  - The loss of alternative investment methods due to negative interest rates and the lack of buoyancy in the US also creates a credit crunch spiral as investors liquidate their investments into cash.

[Flood map for global yields]

	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	11Y	12Y	13Y	14Y	15Y	20Y	30Y	40Y
Switzerland	-0.83	-0.97	-0.96	-0.85	-0.76	-0.65	-0.58	-0.44	-0.34	-0.28	-0.24	-0.20	-0.14	-0.08	-0.02	0.11	0.28	0.31
Japan	-0.17	-0.14	-0.14	-0.14	-0.12	-0.12	-0.10	-0.06	0.01	0.09	0.15	0.21	0.27	0.33	0.39	0.82	1.16	1.30
Germany	-0.51	-0.52	-0.47	-0.41	-0.31	-0.26	-0.16	-0.05	0.11	0.24	0.27	0.31	0.35	0.38	0.42	0.68	0.93	
The Netherlands	-0.44	-0.49	-0.43	-0.38	-0.30	-0.17	-0.06	0.10	0.22	0.38	0.42	0.45	0.49	0.52	0.56	0.92	1.08	
Sweden	-0.50	-0.61	-0.53	-0.44	-0.14	-0.01	0.12	0.29	0.40	0.50	0.58	0.66	0.73	0.81	0.89	1.27		
Austria	-0.40	-0.45	-0.40	-0.30	-0.25	-0.11	0.08	0.23	0.39	0.56	0.59	0.62	0.64	0.67	0.70	0.91	1.33	
Finland	-0.47	-0.47	-0.41	-0.32	-0.18	-0.11	0.06	0.18	0.33	0.57	0.66	0.76	0.85	0.94	1.04	1.08	1.18	
France	-0.41	-0.42	-0.34	-0.26	-0.15	-0.03	0.11	0.23	0.44	0.62	0.72	0.83	0.94	1.05	1.15	1.30	1.61	
Denmark	-0.26	-0.24	-0.15	-0.07	0.02	0.09	0.17	0.25	0.42	0.58	0.61	0.63	0.65	0.68	0.70	0.82	1.05	
Ireland	-0.18	-0.24	-0.11	0.00	0.08	0.27	0.46	0.69	0.88	1.00	1.07	1.15	1.22	1.29	1.36	1.55	1.93	
Canada	0.44	0.44	0.44	0.48	0.60	0.62	0.77	0.91	1.02	1.13	1.21	1.29	1.36	1.44	1.52	1.91	1.93	
Norway	0.54	0.60	0.60	0.59	0.73	0.87	1.00	1.12	1.21	1.32								
UK	0.38	0.37	0.47	0.56	0.79	0.89	1.07	1.21	1.33	1.43	1.51	1.59	1.66	1.74	1.82	2.06	2.29	2.14
Italy	0.00	0.06	0.14	0.35	0.55	0.83	1.02	1.18	1.48	1.60	1.69	1.78	1.86	1.95	2.04	2.34	2.74	
Spain	0.00	0.05	0.14	0.36	0.63	0.93	1.18	1.34	1.58	1.70	1.80	1.90	2.00	2.10	2.20	2.43	2.89	
USA	0.48	0.71	0.90	1.06	1.21	1.36	1.50	1.58	1.67	1.75	1.79	1.83	1.88	1.92	1.96	2.18	2.60	
Portugal	0.02	1.09	1.64	2.19	2.43	2.65	2.87	3.37	3.37	3.54	3.61	3.69	3.76	3.84	3.92	4.08	4.23	
China	2.45	2.50	2.62	2.75	2.89	2.89	2.88	2.88	2.88	2.89	2.94	2.99	3.05	3.10	3.15			
India	7.26	7.25	7.39	7.52	7.68	7.81	7.87	7.86	7.81	7.75	8.03	8.08	8.06	8.09	8.12	8.26	8.28	
Russia	9.76	10.17	10.20	10.24	10.27	10.25	10.22	10.20	10.17	10.15	10.13	10.12	10.11	10.10	10.08	10.05		
Turkey	10.69	10.87	10.70	10.67	10.63	10.60	10.56	10.59	10.47	10.54								
Greece		14.52	11.65	8.78	9.20	9.62	10.05	10.47	10.89	11.32	11.15	10.99	10.82	10.66	10.49	9.99		

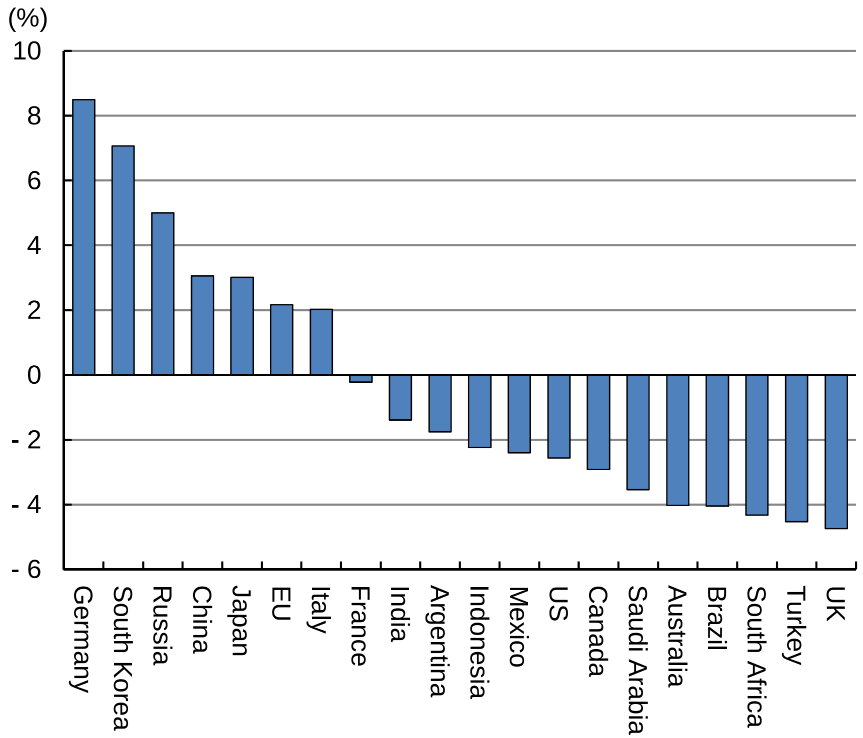
Below 0%
0% to below 0.5%
0.5% to below 1.0%
1.0% and above

Note: Values as of February 15, 2016.
Source: Made by MHRI based upon Bloomberg materials.

For avoiding a global recession: the G20 could foster fiscal expansion through policy coordination

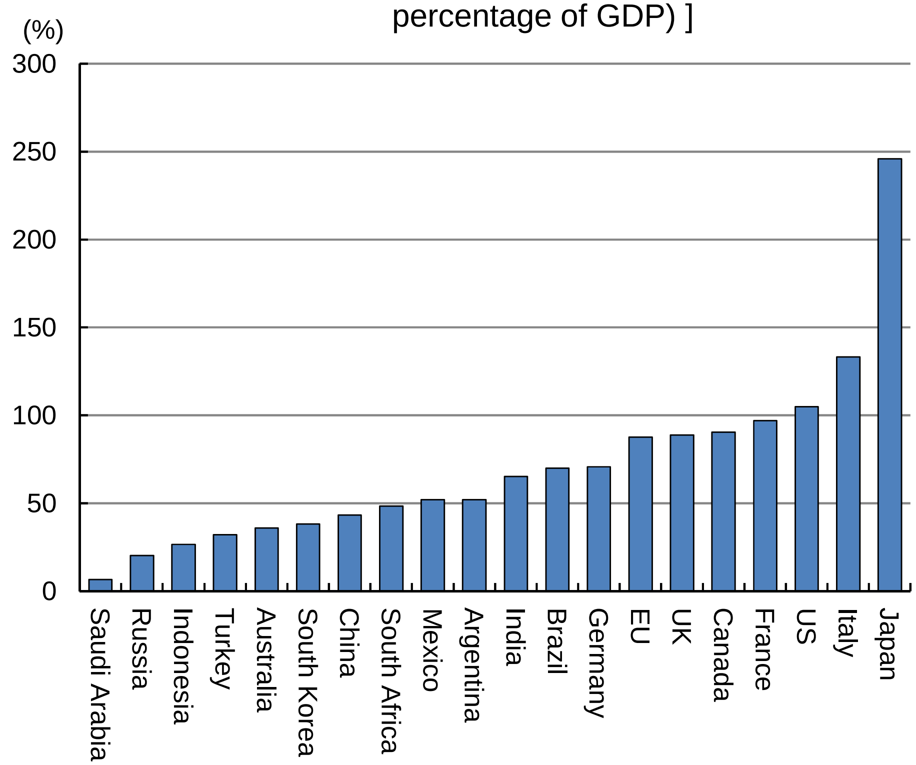
- Concerns that the deterioration of EM economies and financial market instability will have a negative impact on the global economy leads to possibility of G20 policy coordination.
  - Current account surplus countries and countries with fiscal leeway could be key to the promotion of fiscal expansion.

[Comparison of G20 Current Accounts (as a percentage of GDP)]



Note: Data is 2015 forecast.
Source: Made by MHRI based upon IMF.

[Comparison of G20 Government Debt (as a percentage of GDP)]



Note: Data is 2015 forecast.
Source: Made by MHRI based upon IMF.

For avoiding a global recession: Japan needs to strengthen its growth strategy to make an international contribution

- The world lacks a ‘lifebuoy’ due to the decline of US yields, while negative interest rates raise concerns about currency wars
  - The lack of alternative investment methods due to negative interest rates also raises concerns of a credit crunch spiral, should investors liquidate their investments.

<Measures needed to put an end to concerns about a global recession>

1) Remove the key concerns about a possible devaluation of the renminbi and US interest rate hikes
   - China must announce its intent to avoid a renminbi devaluation (including capital controls) and its focus on the economy
   - US must announce the suspension of interest rate hikes and focus upon the economy

2) A worldwide stance of cooperation to achieve a bottoming out of the economy
   - Indication of a stance to boost the economy at the G20 and G7.

3) Policies to raise each country’s domestic demand without relying upon monetary-based beggar-thy-neighbour policies
   - Indication by each country of their fiscal expansion and growth strategy

4) In terms of international contribution, the BOJ and Japan’s government should take additional measures to stimulate the economy, which include monetary easing steps, economic stimulus measures and the postponement of the consumption tax hike.

II. Japanese economy

Deterioration of external conditions will weigh on Japan's economic recovery

The Japanese economy will avoid entering a recession, but still lacks strength

- The Japanese economy is still stalling, as revealed by its contraction for the first time in two quarters in the Oct-Dec quarter of 2015. The economy will likely remain in a soft patch in the Jan-Mar quarter of 2016, due to factors such as the fall of IT-related demand. FY2015 growth forecast: +0.7% [growth during FY2015 would be virtually zero (-0.1%) when excluding the impact of the strong growth in the second half of FY2014].

- Even though the Japanese economy will gradually pick up in FY2016, the overseas economic slowdown and financial market turmoil are expected to weigh down upon growth. In the second half of the fiscal year, a last-minute rush of demand prior to the consumption tax hike (in April 2017) will emerge and push up the rate of growth to +0.9% in FY2016.

- In FY2017, the pace of economic growth is forecast to slow down to +0.3% due to a backlash to the last-minute rush of demand. The Japanese economy should avoid a recession as the backlash wears off in the second half of the fiscal year. Note that Japan may postpone its next consumption tax hike depending upon the future course of the economy and financial market. [In the event the scheduled consumption tax hike is postponed to April 2018, our forecast on growth would be changed as follows: FY2016 (around +0.7%), FY2017 (around +1.3%).]

- Given the fall of crude oil prices, the year-on-year (y-o-y) change of the core CPI should trend below zero 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 nearly 1% (excluding the impact of the consumption tax hike) in FY2017. The underlying trend in inflation excluding the impact of energy prices should gradually improve.

Japan: FY2016 growth is revised downward, reflecting the deterioration of the external environment FY2017 growth should turn out to be weak, given the impact of the consumption tax hike

- Even though the Japanese economy should gradually return to a recovery track in FY2016, strong uncertainties are expected to prevail due to factors such as the slowdown of overseas economies.
  - The growth rate should rise to +0.9% in the latter half of the fiscal year due to a rush in demand ahead of the consumption tax hike.
    - ✓ We have downwardly revised our projection from our December forecast (+1.5%). This is mainly attributed to the decline of the so-called "carry-over of growth" due to the lower growth rate in Oct-Dec 2015, and the downward revision for capital investment and external demand due to the slowdown of overseas economies and financial market turmoil.
- We forecast a fall of the growth rate to +0.3% in FY2017, in part because of a backlash to the rush in demand ahead of the consumption tax hike. The economy should pick up in the second half of the year and avoid a recession.

[Outlook on the Japanese economy]

		2014	2015	2016	2017	2015			2016				2017				2018
		FY				Apr-Jun	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	-1.0	0.7	0.9	0.3	-0.3	0.3	-0.4	0.2	0.3	0.3	0.3	0.6	-0.6	-0.2	0.4	0.4
	Q-o-q % ch p.a.	--	--	--	--	-1.4	1.3	-1.4	1.0	1.4	1.0	1.2	2.6	-2.5	-0.7	1.5	1.7
Domestic demand	Q-o-q % ch	-1.5	0.6	1.1	0.1	-0.0	0.1	-0.5	0.3	0.4	0.3	0.5	0.9	-0.9	-0.2	0.3	0.4
Private sector demand	Q-o-q % ch	-1.9	0.5	1.1	-0.3	-0.3	0.2	-0.6	0.3	0.3	0.3	0.6	1.1	-1.6	-0.3	0.5	0.4
Personal consumption	Q-o-q % ch	-2.9	-0.4	1.2	-0.6	-0.8	0.4	-0.8	0.6	0.2	0.3	0.5	1.6	-2.5	0.1	0.4	0.3
Housing investment	Q-o-q % ch	-11.7	1.4	-1.1	-2.3	2.3	1.6	-1.2	-4.1	-0.9	1.6	2.2	3.6	-4.3	-3.5	0.8	1.2
Capital investment	Q-o-q % ch	0.1	2.1	2.4	0.7	-1.2	0.7	1.4	0.7	0.4	0.5	0.4	0.2	-0.5	0.4	0.5	0.5
Inventory investment	Q-o-q contribution, % pt	0.6	0.3	-0.2	0.1	0.3	-0.2	-0.1	-0.1	0.1	-0.0	0.0	-0.3	0.5	-0.3	0.0	0.0
Public sector demand	Q-o-q % ch	-0.3	0.8	1.1	1.4	0.9	-0.2	-0.1	0.3	0.6	0.2	0.1	0.3	1.0	0.1	-0.1	0.3
Government consumption	Q-o-q % ch	0.1	1.3	1.2	1.1	0.5	0.2	0.5	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3
Public investment	Q-o-q % ch	-2.6	-1.3	0.4	2.7	3.3	-2.0	-2.7	0.4	2.3	-0.4	-0.7	0.5	4.3	-0.9	-1.4	0.2
External demand	Q-o-q contribution, % pt	0.6	0.1	-0.2	0.1	-0.3	0.2	0.1	-0.1	-0.0	-0.1	-0.2	-0.3	0.3	0.1	0.1	0.0
Exports	Q-o-q % ch	7.8	0.3	1.7	2.6	-4.6	2.6	-0.9	0.4	0.5	0.5	0.4	0.2	0.7	0.9	0.9	0.9
Imports	Q-o-q % ch	3.3	-0.2	2.5	2.1	-2.6	1.3	-1.4	0.7	0.7	0.7	1.4	1.9	-1.1	0.6	0.7	0.7
GDP (nominal)	Q-o-q % ch	1.5	2.2	2.7	1.2	-0.0	0.6	-0.3	0.9	1.1	0.7	0.5	0.4	0.3	0.1	0.2	0.0
GDP deflator	Y-o-y % ch	2.5	1.5	1.8	1.0	1.5	1.8	1.5	1.3	1.8	2.0	2.0	1.2	1.3	1.2	0.8	0.6
Domestic demand deflator	Y-o-y % ch	2.1	0.0	-0.2	1.3	0.0	0.0	-0.2	-0.0	-0.3	-0.5	-0.2	0.1	1.0	1.3	1.4	1.4

Notes: Figures in the shades areas are forecasts
Source: Made by MHRI based upon Cabinet Office, *Preliminary Quarterly Estimates of GDP.*

Japan: y-o-y change in core CPI to remain negative until the end of 2016 due to low crude oil prices

[Outlook on the Japanese economy (major economic indicators)]

		2014	2015	2016	2017	2015			2016				2017				2018
		FY				Apr-Jun	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	-0.4	-0.7	2.3	0.9	-1.4	-1.2	0.6	0.5	0.6	0.6	0.9	1.5	-1.4	-0.1	0.6	1.2
Ordinary profits	Y-o-y % ch	5.1	10.3	4.9	8.5	21.0	8.5	5.0	7.4	4.1	4.3	4.0	7.2	4.9	9.0	9.9	10.3
Nominal compensation of employees	Y-o-y % ch	1.9	1.4	1.8	1.7	0.9	1.7	1.8	1.3	1.9	1.7	1.8	1.9	1.8	1.6	1.8	1.8
Unemployment rate	%	3.5	3.3	3.2	3.1	3.3	3.4	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1
New housing starts	P.a., 10,000 units	88.0	90.1	90.6	85.6	95.6	91.7	86.8	85.6	89.0	90.1	92.7	90.3	87.2	85.3	84.6	85.1
Current account balance	P.a., JPY tril	7.9	17.6	24.8	25.1	16.9	14.6	18.2	19.0	27.5	24.1	25.1	20.7	28.5	24.7	24.8	20.6
Domestic corporate goods prices	Y-o-y % ch	2.8	-3.2	-3.1	3.1	-2.2	-3.6	-3.6	-3.3	-3.7	-3.9	-3.3	-1.6	1.4	3.0	3.9	4.1
Consumer prices (ex fresh food)	Y-o-y % ch	2.8	0.0	-0.2	1.8	0.1	-0.1	0.0	0.0	-0.5	-0.4	-0.1	0.3	1.6	1.8	1.8	1.9
Consumer prices (ex fresh food, ex consumption tax)	Y-o-y % ch	0.8	0.0	-0.2	0.7	0.0	-0.1	0.0	0.0	-0.5	-0.4	-0.1	0.3	0.6	0.7	0.8	0.8
Consumer prices (ex food (ex alcohol) and energy, ex consumption tax)	Y-o-y % ch	0.6	0.7	0.2	0.6	0.4	0.8	0.8	0.7	0.3	0.2	0.2	0.2	0.5	0.5	0.7	0.7
Uncollateralized overnight call rate	%	0.02	0.00	-0.10	-0.10	0.01	0.01	0.04	0.00	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
Yield on newly-issued 10-yr JGBs	%	0.48	0.30	0.10	0.25	0.40	0.39	0.31	0.07	0.00	0.00	0.10	0.20	0.20	0.25	0.25	0.30
Nikkei average	JPY	16,273	18,700	16,500	17,600	20,049	19,412	19,053	16,400	16,300	16,300	16,500	16,700	17,000	17,300	17,800	18,300
Exchange rate	JPY/USD	110	120	110	116	121	122	121	115	113	108	109	111	113	115	118	120
Crude oil price (WTI nearest term contract)	USD/bbl	81	44	29	31	58	47	42	31	30	29	28	28	29	30	32	33

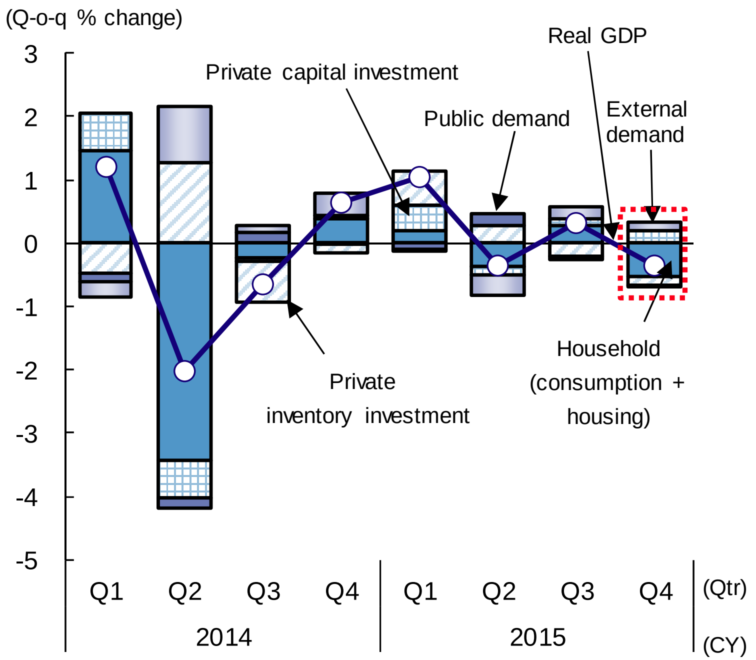
Notes: 1. Figures in the shaded areas are forecasts. The readings above may differ from public releases because the rates of change are calculated based upon actual results.
2. Ordinary profits are based upon the *Financial Statements Statistics of Corporations by Industry* (all industries) (ex. finance & 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 the term, the yield on newly-issued 10-yr 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.

Still in a soft-patch. Despite the alleviation of inventory adjustment pressures, the economy is still vulnerable to downside risks

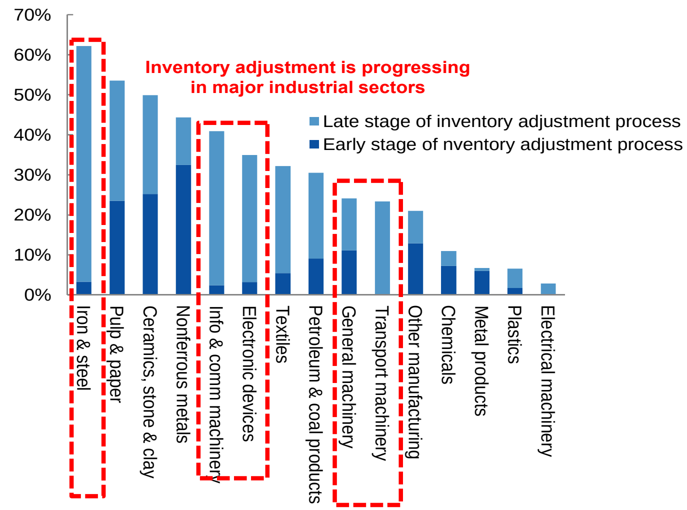
- Japan's real GDP contracted for the first time in two quarters in the Oct-Dec quarter. Personal consumption plummeted due to the warm winter.
  - Despite the ongoing rise of capital investment, the contraction of personal consumption led to a decline in private demand for the first time in two quarters. Even though external demand managed to make a positive contribution to GDP, it lacked momentum with declines in both exports and imports.
- Progress has been made in inventory adjustments in major industrial sectors. While production is likely to increase if there is a recovery in final demand, but the stalled production could also be protracted if demand drops.

[Contributions to real GDP growth]



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

[Proportion of products during the 'inventory adjustment process (late stage/ early stage)' by sector]



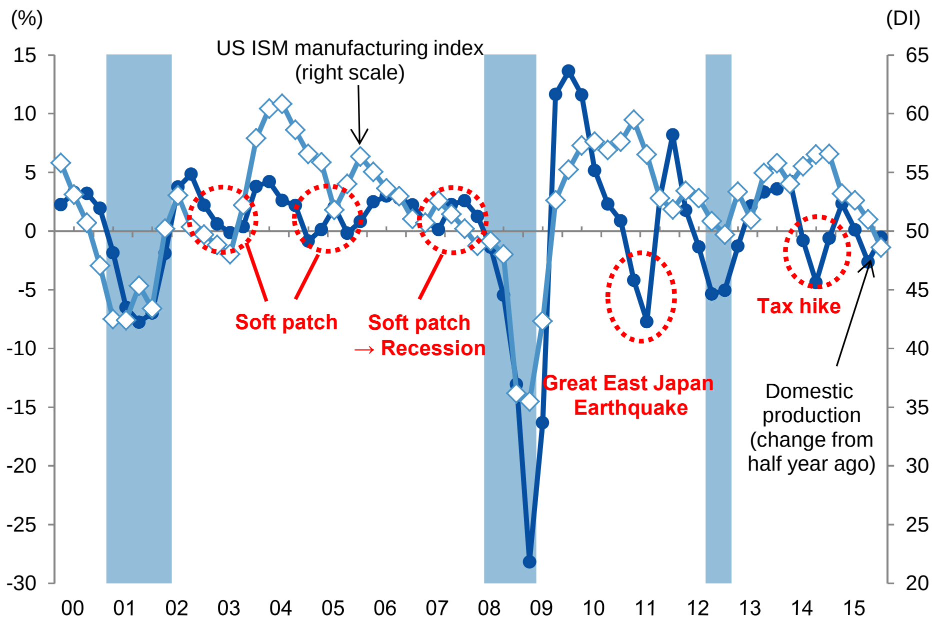
Notes: 1. Items in inventory adjustment phases are weighted. Items in which inventories have increased from the year before are deemed to be in the "early stage of inventory adjustment" and items whose inventories have decreased from the year before are deemed to be in the "late stage of inventory adjustment".
2, "General machinery" refer to general-purpose machinery, production machinery and business oriented machinery. Food & tobacco and mining have been omitted due to the data limitations.

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

Even though the economy should bottom out in the Apr-Jun quarter, growth will remain tepid

- The Japanese economy is forecast to remain in a soft patch in the Jan-Mar quarter of 2016.
  - While we anticipate a moderate recovery in personal consumption and capital investment (referred to later), exports and production will be tepid due to factors such as the decline in IT related demand.
- While we forecast a bottoming out of the economy in the Apr-Jun quarter, the economy will continue to lack strength due to the slowdown of overseas economies.
  - The economy will be underpinned by increased production for automotive exports from April. However, a strong recovery is unlikely given factors such as the impact of China's acceleration of adjustments in excess capacity.

[Production indices and the US ISM Manufacturing Index]



Source: Made by MHRI based upon Ministry of Economy, Trade and Industry, US Institute of Supply Management.

[Positive and negative factors for production and exports]

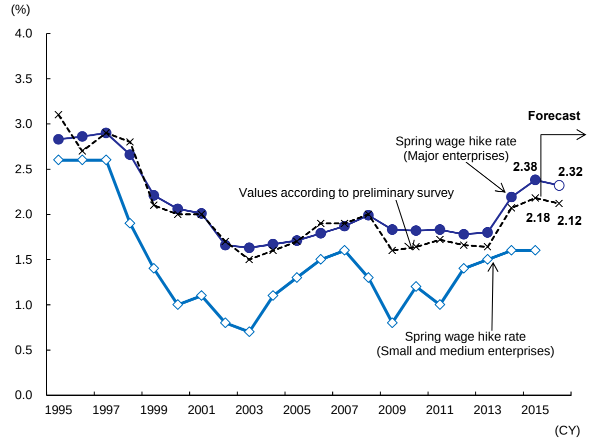
Positive factors	Timing
Nissan and Honda will increase production toward the US and Europe	Apr-May
Toshiba will expand capacity for memory chip production (Mass production of 3D NAND flash memory)	Mar-Jun
Increase production of diapers toward China (Nippon Paper, Oji Holdings)	Around Mar ~
ELECOM will boost monthly production capacity for industrial embedded computers (IoT-related etc.)	Around Mar ~
Yasunaga will increase production of new engine parts for US and European automakers	Mar
Casio will boost production of analog watch drive units by 30% (in view of inbound demand etc.)	End of 2015 ～
Negative factors	**Timing**
Sharp production cuts of new smartphones and decline of orders and shipments of electronic parts due to a pause in construction of mobile communication base stations in China	End of 2015 ～
Toyota will suspend production for approximately 6 days (delay in production of approximately 100 thousand cars) However, the delay should be recovered over the summer	Feb
Given the fall in demand for steel mainly for condominiums, production cuts by electrical steel manufacturers are not keeping pace with the fall in demand	Jan ～
Suzuki will reduce production of light vehicles by approximately 30 thousand units	Jan-Mar

Source: Made by MHRI based upon media reports.

Employment improves, but with sluggish recovery in wages

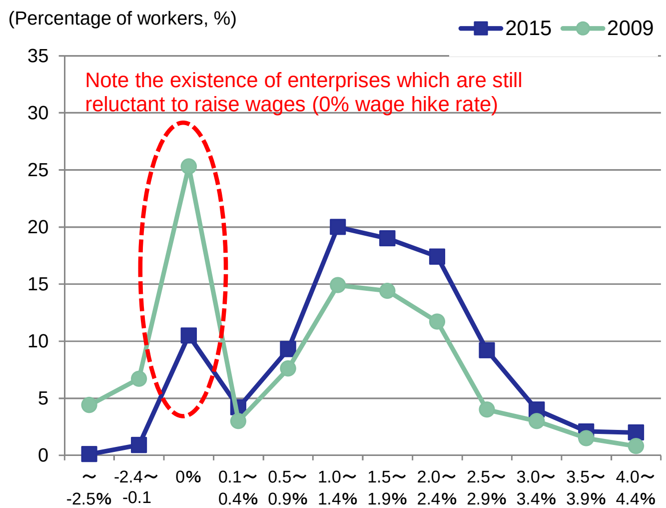
- Wages are forecast to rise 2.32% in the 2016 spring wage negotiations (major enterprises), slightly below last year.
  - The results of a preliminary survey concerning 2016 wage hikes indicates a decline from last year (from 2.18% to 2.12%). Although BOJ monetary easing and the government's dialogue with the private sector are positive factors, management sentiment has deteriorated due to the fall of stock prices since the beginning of the year leading to a more cautious stance.
- Some companies, particularly small and medium enterprises (SME), have still not raised wages. We forecast a moderate pace of wage hikes for some time.
  - The distribution of wage hikes by SME reveals a decline in the proportion of companies with wage hikes of 0%, but about 10% of companies still fall into that category.
    - ✓ The fact that there are still companies that are not hiking wages suggests such companies were unable to cut wages sufficiently during past recessions.

[Actual and forecast rate of spring wage hikes]



Notes: 1. The 2016 wage hike rate for major enterprises is forecast by MHRI.
2. The preliminary survey was conducted by the Institute of Labour Administration.
3. SME are companies with 100 to 299 employees.
Source: Made by MHRI based upon the Ministry of Health, Labour and Welfare, *Survey on agreements for wage increases at major private sector companies*, *Status survey on wage hikes*, and The Institute of Labour Administration, *2016nen chin-age no mitooshi – roshi oyobi senmonka 504nin anke-to"* (*Spring wage hike outlook – survey of 504 employees, managers and experts*, in Japanese only*)*.

[Change in the distribution of wage hikes (SME)]

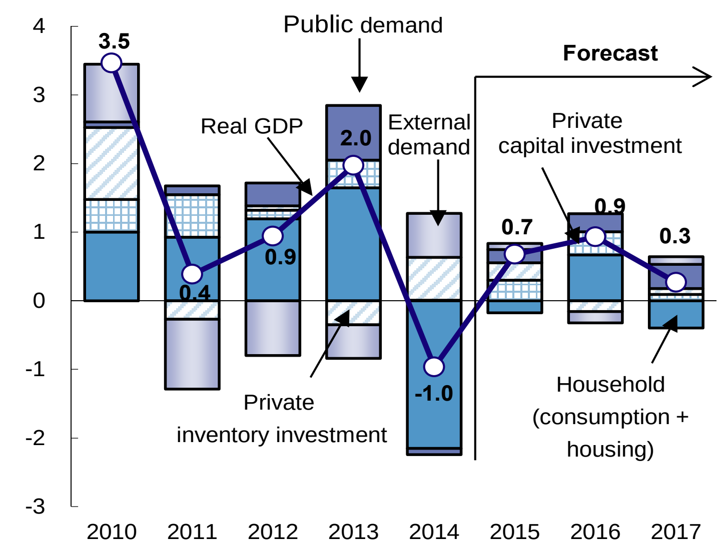


Note: Companies with 100 to 299 employees.
Source: Made by MHRI based upon the Ministry of Health, Labour and Welfare, *Survey on Wage Increase.*

The Japanese economy is forecast to grow +0.9% in FY2016 and +0.3% in FY2017

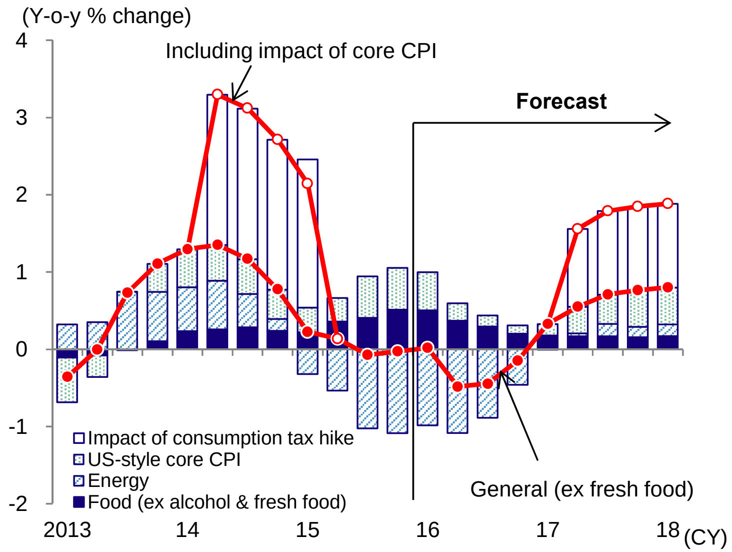
- Despite a gradual recovery in the economy in FY2016, strong uncertainties are expected to prevail due to factors such as the slowdown of overseas economies. We anticipate a rush in demand in the second half of the year ahead of the consumption tax hike (April 2017), which could push the growth rate up to +0.9%.
- In FY2017, a backlash to the rush in demand will lead to a decline in the growth rate to +0.3% in FY2017. As the backlash will subside in the second half of the fiscal year, the economy should be able to avoid falling into a recession.
- The decline in the price of crude oil will lead to the core inflation rate remaining in negative territory until about the end of 2016. Subsequently, energy prices will turn positive y-o-y with core inflation just under 1%. The underlying inflation rate, excluding the impact of energy prices, will improve albeit moderately.

[Real GDP Growth Outlook]



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

[*Consumer Price Index* Outlook]



Note: Excludes the impact of the consumption tax hike. US-style Core *CPI* is the general consumer price index excluding energy and food (excluding alcohol)

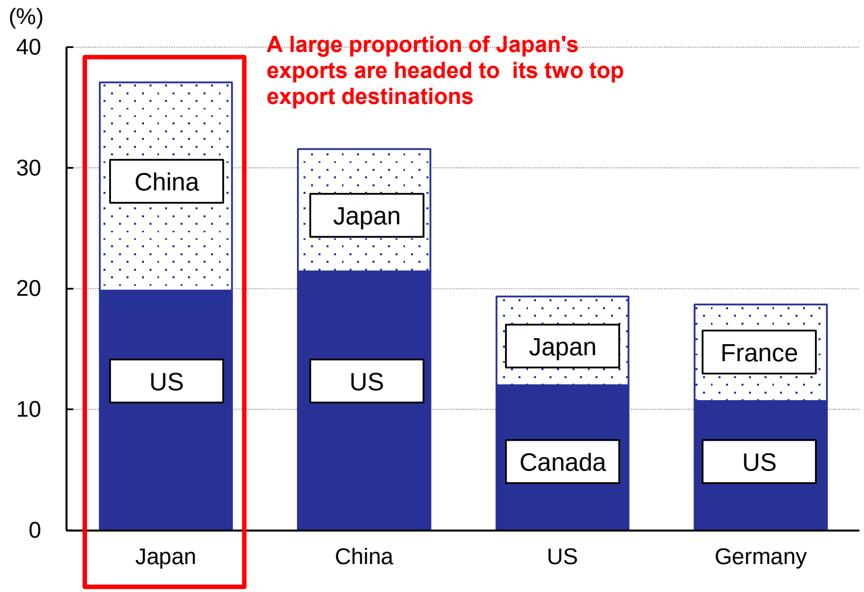
Source: Made by MHRI based upon Ministry of Internal Affairs and Communications, *Consumer Price Index.*

MIZUHO

Exports are vulnerable to demand in China and the US. Keep an eye upon downside risks

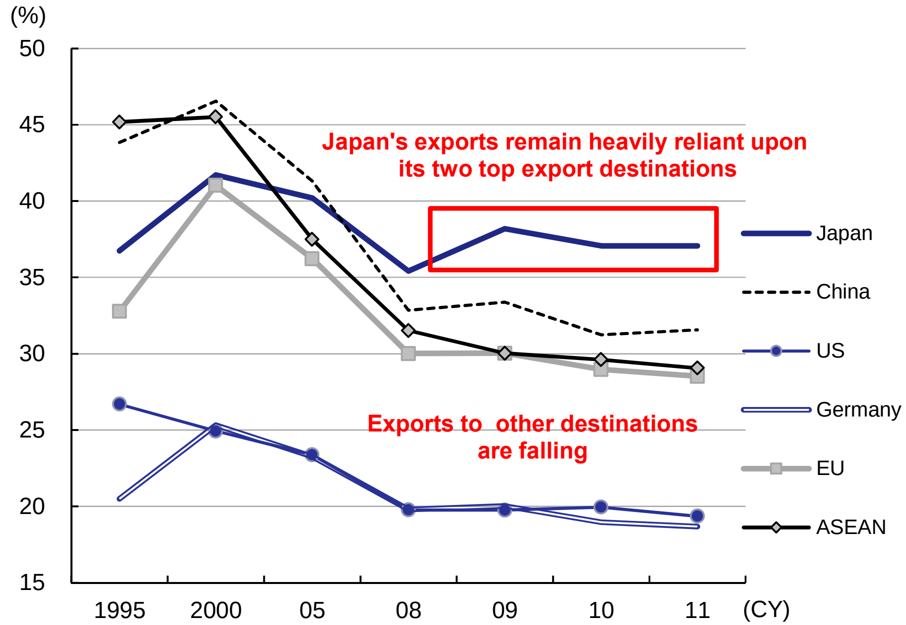
- The top two destinations account for a large proportion of Japan's value-added exports on the basis of final demand, making Japan vulnerable to trends in China and the US.
  - The total share of Japan's exports to its top two destinations is high at 37%. In both the US and Germany, the top two destinations account for less than 20% of total exports.
- The proportion of exports to its top two destinations remains noticeable high for Japan.
  - Although the level has not fallen much for Japan, the proportion of exports to their top two destinations are falling for China, the EU and ASEAN, which exceeded Japan in 2000.

[The proportion of exports to the top two destinations (2011)]
(Value-added exports, final demand base)



Source: Made by MHRI based upon OECD, *Trade-in Value Added (TiVA) October 2015.*

[Trend in the proportion of exports to the top two destinations]
(Value-added exports, final demand base)



Source: Made by MHRI based upon OECD, *Trade-in Value Added (TiVA) October 2015.*

MIZUHO

FY2016 growth rate could fall further if stocks remain weak and the yen strong

- If stock prices remain weak and the yen strong, the FY2016 growth rate could fall further.
- Need to watch out for delays in capital investment due to increased uncertainty about the future outlook.

[Impact on the FY2016 growth rate from financial market changes (mechanical simulation adopting MHRI's macro model)]

The case of crude oil price (Dubai) of about US$25

Factored into this forecast

		Stock prices (JPY)					
		14,000	15,000	16,000	17,000	18,000	19,000
Forex rate (JPY/USD)	100	-1.2%	-1.0%	-0.8%	-0.6%	-0.4%	-0.2%
	105	-1.0%	-0.8%	-0.6%	-0.4%	-0.2%	0.0%
	110	-0.9%	-0.7%	-0.5%	-0.3%	-0.1%	0.1%
	115	-0.7%	-0.5%	-0.3%	-0.1%	0.1%	0.3%
	120	-0.6%	-0.4%	-0.2%	0.0%	0.2%	0.4%

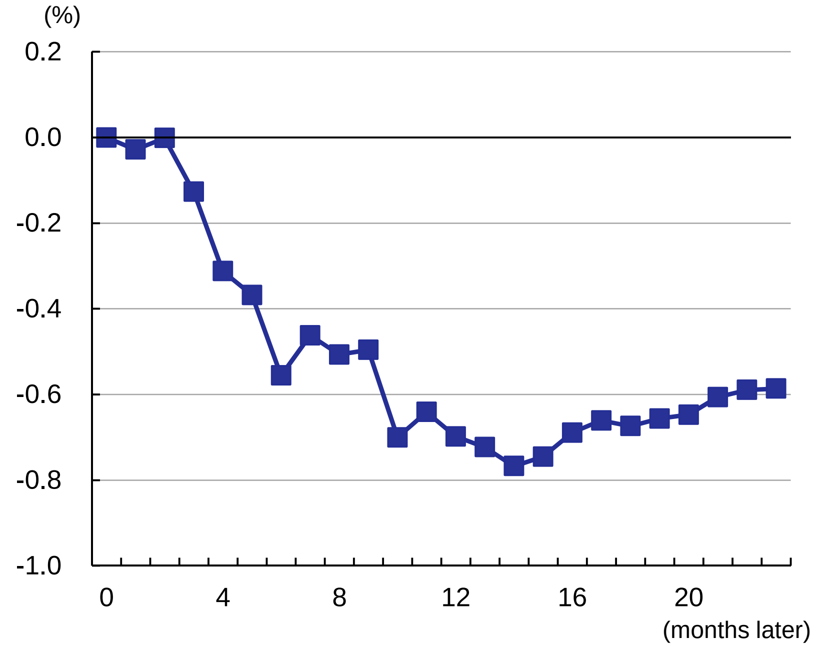
The case of crude oil price (Dubai) recovers to about US$50

		Stock prices (JPY)					
		14,000	15,000	16,000	17,000	18,000	19,000
Forex rate (JPY/USD)	100	-1.7%	-1.5%	-1.3%	-1.1%	-0.9%	-0.7%
	105	-1.5%	-1.3%	-1.1%	-0.9%	-0.7%	-0.5%
	110	-1.4%	-1.2%	-1.0%	-0.8%	-0.6%	-0.4%
	115	-1.2%	-1.0%	-0.8%	-0.6%	-0.4%	-0.2%
	120	-1.1%	-0.9%	-0.7%	-0.5%	-0.3%	-0.1%

Note: The impact upon FY2016 growth in the event stock prices, forex rates and crude oil prices trend are around the respective levels above (in comparison with the case where the respective levels trend around the 2015 average). The simulation results need to be considered with a degree of latitude.

Source: Made by MHRI.

[Impact of the rise of uncertainty in the financial markets upon capital investment]



Note: Calculation of the impact of the change in stock price volatility from 2015 (average) to January 2016 upon capital investment.

Source: Made by MHRI based upon the Ministry of Economy, Trade and Industry, and Bloomberg.

Delaying the consumption tax hike is still likely depending on economic and financial trends

- The main scenario is for economic stimulus measures to be introduced to facilitate the FY2017 consumption tax hike.
- However, the possibility of another consumption tax hike postponement may not be ruled out, depending upon economic and financial indicators.
  - When considering factors such as Japan and US GDP, the schedule still allows for an understanding to be reached at the G7 summit for a delay in the consumption tax hike followed by the dissolution of the lower house.
    - ✓ Delaying the consumption tax hike once again would inevitably result in the deterioration of the FY2017 primary balance
  - In the event of a global economic downturn, discussions on coordinated fiscal measures would be necessary at the G7 Summit, etc.

[Key political and economic events]

Date		Item	Note
Mar	14-15	BOJ Monetary Policy Board Meeting	
	14-18	Period for response from labor unions ahead of Spring Wage Negotiations	If Japan and US GDP are weak, a decision could be made at the Summit to postpone tax increases
	16	Peak day for responses to Spring Wage negotiations	
Apr	28	BOJ Outlook Report for Economic Activity and Prices	
		US GDP (2016 Q1)	
May	After Golden Week	Formulation of the 'Plan to Realize the Dynamic Engagement of All Citizens'	Apart from the problem of increasing productivity, structural issues have been raised such as (1) work style reforms, (2) improving the conditions for child rearing and nursing, and (3) the mechanism for a virtuous cycle of growth and distribution.
	18	Japan's GDP (2016 Q1)	
	26-27	Ise-Shima Summit (G7)	
Jun	1	End of Diet Session	Possible Lower House dissolution
	15-16	BOJ Monetary Policy Board Meeting	
	End	Basic Policy on Economic and Fiscal Management and Reform	To incorporate measures such as (1) the realization of the 600 trillion yen GDP target, (2) policies to facilitate a consumption tax hike, and (3) concrete promotion of economic and fiscal plans, etc.
		Revisions to Growth Strategy	Consider ongoing use to (1) realize productivity reforms, (2) cultivate human resources that are motivated to do their best, (3) expand strategic growth markets, (4) take initiatives in overseas growth markets, and (5) act as the momentum for reform for 2020 to coincide with the Tokyo Olympics.
	Mid-Jun	Calculation of Economic Impact of the 'Plan to Realize the Dynamic Engagement of All Citizens'	
Jul	During	Upper House election	Most likely on the 10th, with possibility of Lower House election on the same day
	Late	FY2017 Budget Request Guidelines	
	29	BOJ Outlook Report for Economic Activity and Prices	

Source: Made by MHRI based upon media reports.

[National and regional primary balance (simulations)]

	National and regional primary balance FY2016	National and regional primary balance FY2017	Notes
Case 1: Cabinet Office Calculations (Increase in consumption tax)	-15tn yen vs. GDP -2.9%	-11 tn yen vs. GDP -2.2%	
Case 2: Consumption tax increase postponed	-15tn yen vs. GDP -2.9%	-13.5 tn yen vs. GDP -2.5%	・Calculation —11.7 tn+1.5 tn (*1) — (5.8 tn (*2) - 1.0 tn (*3)) x 57/83 (*4) ≒ - 13.5 tn yen
Case 3: Consumption tax increae postponed + fiscal spending (5 tn yen in FY2016, 10 tn yen in FY2017)	-20.0 tn yen vs. GDP -3.8%	-23.5 tn yen vs. GDP -4.3%	In addition to Case 2, the calculation records the amount due to fiscal spending in the primary balance and nominal GDP

*1: An increase in the 4 expenses for social welfare due to a further consumption tax hike, and increase in social welfare (excluding the total aggregate system) 1.5 tn yen

*2: Increased portion of tax revenue at the time of the further consumption tax hike (excluding the impact of reduced tax rate) 5.8 tn yen

*3: Impact of reduced tax rate (for certain items) 1 tn yen

*4: Adjustment for lag in initial year for the increased portion of tax revenue (according to Cabinet Office, *Council on Economic and Fiscal Policy materials)*

Note: Case 1 is based upon Cabinet Office calculations. Cases 2 and 3 are based upon MHRI calculations.

Source: Made by MHRI based upon Cabinet Office, *Economic and Fiscal Projections for Medium to Long Term Analysis*, and the Ministry of Finance.

III. The Asian Economies

China continues to slow down, and other Asian economies are far from self-sustained recoveries

The Asian Economies – still far from a self-sustained economic recovery

- The Chinese economy will continue to be weighed down by adjustment pressures in 2016 and 2017 due to the increasingly serious excess production capacity and excess debt problem. Given the lack of a self-sustained recovery, the economy will be supplemented by reinforcing economic support measures to ease the pace of slowdown. In addition to the tepid rebound of commodity prices, the slow elimination of excess production capacity will keep the rate of nominal GDP growth below real GDP growth.

- In 2016, the Asian economies (ex China) are forecast to slow down as in the previous year. Exports remain weak, given the stagnation of crude oil and commodity producing countries due to the protracted decline in the price of commodities such as crude oil and the slowdown in pace of US economic growth.

- Again in 2017, a dramatic acceleration of the economy is unlikely. Even though exports should recover from the previous year due to the acceleration of the US and European economies the support provided by fiscal and monetary policy measures would shrink due to the resumption of US interest rate hikes.

The Asian economies: despite growth forecast of +6%-level up to 2017, a gradual moderation is expected

- Even though the Asian economies are likely to maintain economic growth above +6%, a gradual moderation is expected.
  - China is forecast to follow a gradual slowdown in 2017, given capital stock adjustment pressures due to excess production capacity.
  - The NIEs, which rely heavily on exports, are expected to grow around +2% due to the weakness of the economic recoveries in their major export destinations.
  - In the ASEAN5, growth among some countries should remain below +5% growth due to sluggish exports and the negative impact of low commodity prices.
  - India is expected to accelerate in 2016 due to a major hike in public servants' salaries, but slow down slightly in 2017 as that effect wanes.

[Outlook for the Asian Economies]

(Unit: %)

	2011 (Actual)	2012 (Actual)	2013 (Actual)	2014 (Actual)	2015 (Forecast)	2016 (Forecast)	2017 (Forecast)
Asia	7.4	6.3	6.4	6.3	6.1	6.0	6.0
China	9.5	7.7	7.7	7.3	6.9	6.6	6.5
NIEs	4.1	2.3	2.9	3.4	2.0	1.9	2.1
South Korea	3.7	2.3	2.9	3.3	2.6	2.3	2.5
Taiwan	3.8	2.1	2.2	3.9	0.9	1.4	1.7
Hong Kong	4.8	1.7	3.1	2.5	2.3	1.9	1.8
Singapore	6.2	3.4	4.4	2.9	2.1	1.9	2.1
ASEAN5	4.7	6.2	5.0	4.6	4.7	4.4	4.5
Indonesia	6.2	6.0	5.6	5.0	4.8	4.7	4.7
Thailand	0.8	7.2	2.7	0.8	2.8	2.5	2.7
Malaysia	5.3	5.5	4.7	6.0	4.7	3.5	4.1
The Philippines	3.7	6.7	7.1	6.1	5.8	6.0	5.5
Vietnam	6.2	5.3	5.4	6.0	6.7	6.0	5.7
India (FY2011 base)	6.6	5.1	6.3	7.0	7.3	7.6	7.5

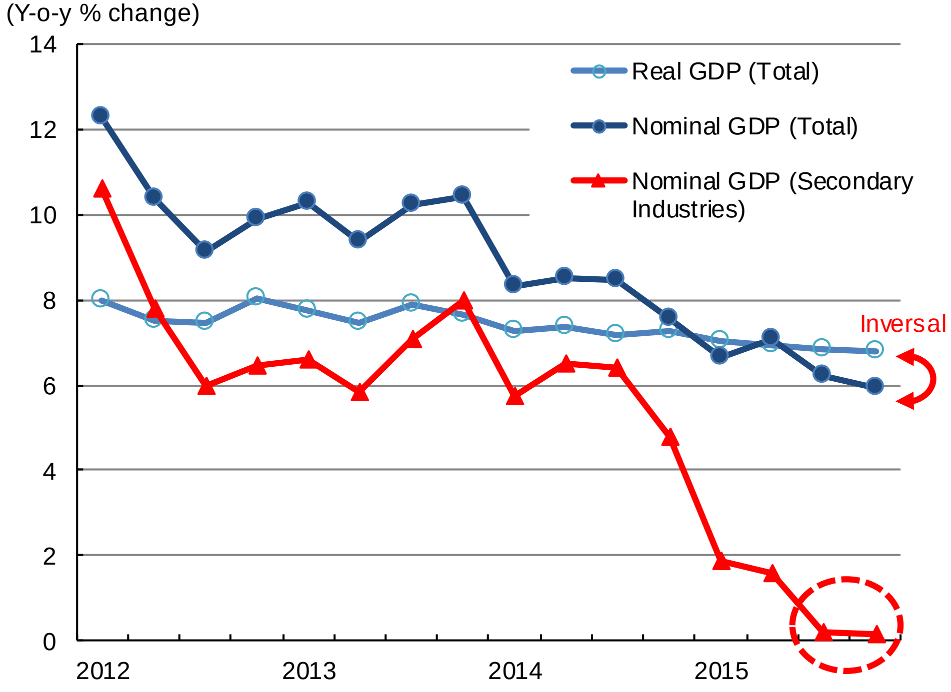
Notes: 1. Rate of growth in Real GDP (y-o-y). Shaded areas are forecasts. Unshaded areas are actual results.
2. Average values calculated from the IMF's 2013 GDP Share (Purchasing Power Parity base).
3. India's growth rate refers to IMF data up until 2012, and to data from the Indian Ministry of Statistics and Programme Implementation from 2013.

Source: Made by MHRI based upon each country's statistics, CEIC Data, and the IMF

China: GDP growth rate slowed slightly in real terms. Nominal GDP growth continues to be below growth in real terms

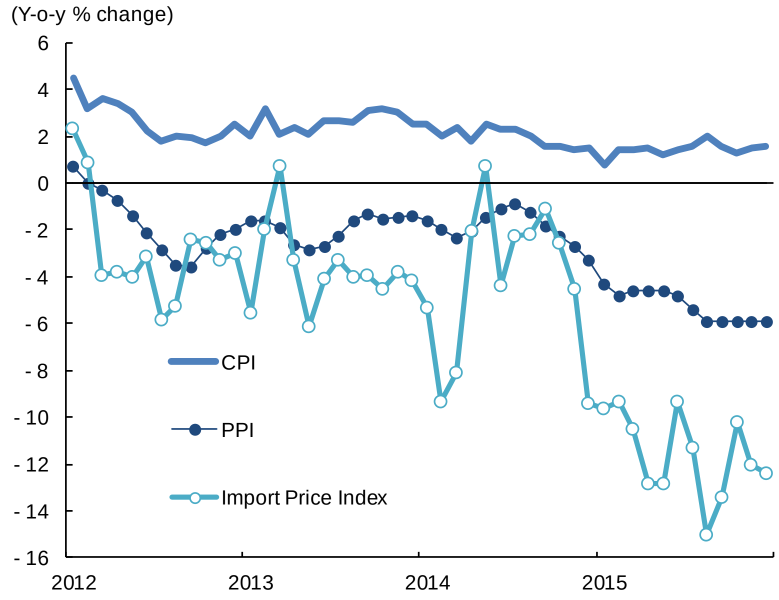
- The rate of growth in real GDP (Oct-Dec) was +6.8% y-o-y, down only slightly from the Jul-Sep quarter (+6.9%). The rate of growth in nominal GDP was below real growth for the second straight quarter, with nominal growth (Oct-Dec) falling to +6.0% (c.f., +6.2% in the Jul-Sep quarter).
- The decline in the rate of growth in nominal GDP for secondary industries was particularly pronounced, falling to +0.2% in the Oct-Dec quarter.
  - The decline in commodity prices, excess domestic inventory and excess production capacity caused a large drop in producer prices, leading to the stagnation of growth in nominal GDP for secondary industries.

[Growth rate for China's GDP (comparison of nominal and real)]



Source: Made by MHRI based upon the National Bureau of Statistics of China and CEIC Data.

[China's inflation rate]



Source: Made by MHRI based upon the National Bureau of Statistics of China and Customs General Administration.

China: given the lack of a self-sustained recovery, China will continue to search for a soft landing by stepping up its economic stimulus measures

- During 2017, China's economy will continue to be supplemented by economic stimulus measures to keep the slowdown moderate.
  - The aggravation of excess production capacity and pressures for adjustment of excess debt will continue to serve as drags upon the economy.
  - Even though labour adjustment in sectors with excess production capacity will weigh down upon consumer spending, the slowdown is likely to be moderate, given the tightness of the labour market and policy measures to support real estate sales. Exports will pick up but will not be strong enough to offset the slowdown of domestic demand.
  - Given the lack of a self-sustained recovery, the odds are high that economic stimulus measures consisting mainly of fiscal spending will be strengthened to achieve the numerical target of "average annual growth rate from 2016 to 2020 of at least 6.5%".

[Survey concerning the level of seriousness of excess production capacity]

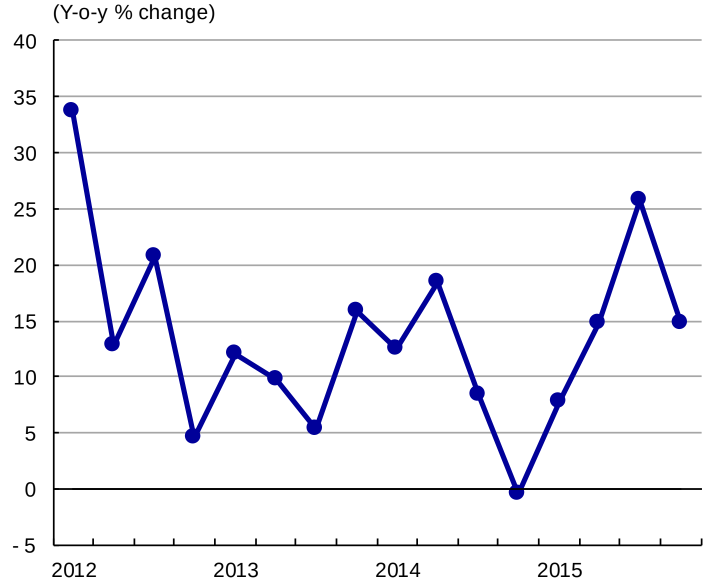
(Units: %)

	Very serious	Moderately serious	No problem	Very serious + moderately serious
All industries (2015)	**16.1**	**58.6**	**25.3**	**74.7**
2014	15.5	58.5	26.0	74.0
2013	12.8	58.3	28.9	71.1
2012	12.8	54.3	32.9	67.1
Mining Industry	**33.3**	**52.4**	**14.3**	**85.7**
Manufacturing Industry	**19.8**	**60.3**	**19.9**	**80.1**
Non Metallic Mineral Products	31.1	63.1	5.8	94.2
Non Metallic Metallurgy & Rolling Mills	30.8	50.0	19.2	80.8
Iron & Steel Metallurgy & Rolling Mills	28.6	64.3	7.1	92.9
Railways, Ships, Aerospace & Other Transport Equipment	25.0	41.7	33.3	66.7
Synthetic Fibers	25.0	62.5	12.5	87.5
Motor Vehicles	23.0	68.8	8.2	91.8
Industry Machinery	22.7	54.6	22.7	77.3
General Machinery	22.4	65.1	12.5	87.5
Computers, Communication & Other Electronic Devices	21.6	58.8	19.6	80.4
Garments	20.5	61.3	18.2	81.8
Paper & Paper Products	19.0	66.7	14.3	85.7
Electrical machinery & Electrical Appliances	18.8	61.2	20.0	80.0
Chemicals & Chemical Products	18.8	62.4	18.8	81.2
Metal Products	18.3	63.4	18.3	81.7
Spinning & Weaving	18.1	69.5	12.4	87.6
Rubber & Plastic Products	17.1	62.2	20.7	79.3
Food & Beverages	16.0	53.4	30.6	69.4
Precision equipment and meters	8.8	44.1	47.1	52.9
Medical	5.4	62.2	32.4	67.6

Notes: 1. A survey of corporate managers in China. Most recent survey conducted Aug/Sep 2015.
2. The shaded areas highlight where the rate of response 'very serious' was higher in the 2015 survey than the 2014 survey.

Source: Made by MHRI based upon the Chinese Enterprise Survey System (2014, 2015).

[Fiscal spending]



Source: Made by MHRI based upon China's Ministry of Finance and CEIC Data.

China: from 2016, China plans to implement supply-side structural reforms while stepping up economic support measures

- China's Central Economic Work Conference (convened December 18-21, 2015)- which sets forth China's economic policy for 2016 - underscored its stance to reinforce policy measures to support the economy.
  - The policy from this year forward is 'to be more forceful for more proactive fiscal policies and more flexible in adopting sound monetary policies'. There was also a commitment to increase the fiscal deficit as needed.
- There is awareness of the harmful effect of relying on economic policies, and emphasis on the goal for more sustained growth through progress in 'supply-side structural reforms'.
  - The plan is to eliminate excess production capacity while promoting the increase in supply of new goods and services to stimulate demand.
- Since a rapid elimination of excess production capacity could foster financial instability, it must proceed gradually. The chances of a sharp recovery in commodity prices are remote. It is hard to imagine a quick escape from deflation in the industrial sector.

['Five tasks' for 2016]

	Tasks	Main policies
1	Cut industrial overcapacity	• Commercialize bankruptcy procedures, speed up the trials concerning bankruptcy processes. • Fiscal and tax support for disposal of non-performing assets, and support for reemployment of the unemployed etc. • Reduce bankruptcy and liquidation as much as possible through mergers and reorganization.
2	Reduce corporate costs	• Reduce costs such as administrative procedure costs, tax burdens, social welfare premiums, financial costs, electricity charges, and distribution costs, etc.
3	Destock property inventory	• Expand residential demand, particularly for farm workers, through urbanization and census reforms. • Develop the residential rental market.
4	Expand effective supply	• Cultivate new industries, technologies and products aimed at enhancing and stimulating demand. • Support corporate technology improvements and facility upgrades.
5	Prevent and eliminate financial risk	• Dispose of defaults in accordance with law. • Eliminate local government debt risks.

Source: Made by MHRI based upon Chinese Government, *Economic Blueprint Statement by Chinese President Xi Jinping at the Central Economic Work Conference held in Beijing (December 21, 2015).*

[Actual production and production capacity elimination target by industry]

	Iron & Steel	Coal
Production capacity	1.2 bn ton	5.7 bn ton
Production volume	0.8 bn ton	3.7 bn ton
Excess production capacity	0.4 bn ton	2.0 bn ton
Utilization ratio	67%	65%
Future elimination goal	0.1 to 0.15 ton in 5 years from 2016 (Approx. 8 to 13% of production capacity)	At least 0.5 ton in 3 to 5 years from 2016 (At least Approx. 9% of production capacity)

Note: The production capacity for iron & steel is based upon the China Iron & Steel Association. The production capacity for coal is based upon comments from Lian Weiliang, Deputy Director of the National Development and Reform Commission. Production volumes are based upon the National Bureau of Statistics of China. Excess production capacity = production capacity – production volume. Utilization ratio = production volume/ production capacity.

Source: Made by MHRI based upon the State Council of the People's Republic of China, the China Iron & Steel Association, the National Development and Reform Commission, and media reports.

Other Asian economies: weak recovery in the Oct-Dec quarter

- The Asian economies (ex China) lacked strength in the Oct-Dec quarter due to factors such as the weak pace of recovery in exports.
  - Even though economic growth in some countries such as Singapore accelerated, they were supported to some degree by public demand.
    - ✓ Policy impact such as public investment is evident in places such as Taiwan, Singapore, Indonesia, and the Philippines.
    - ✓ Vietnam's growth rate was up in the Oct-Dec quarter, but based on statistical anomalies, we believe there has actually been a slowdown.
  - While exports have been recovering on a real basis, the pace has been only moderate.
    - ✓ Exports to the US, and to oil producing and commodity-producing countries softened.

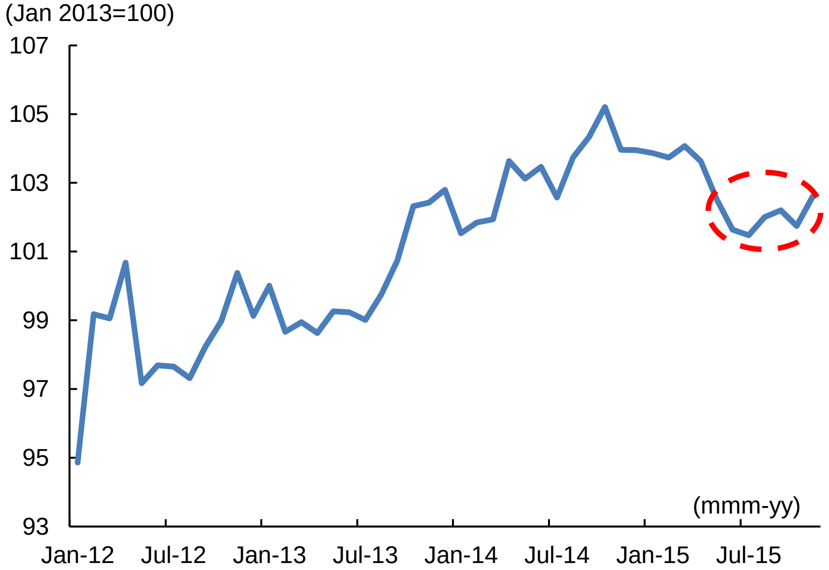
[Rate of growth in real GDP]

(Q-o-q % change, p.a.)

	2014				2015			
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
South Korea	4.4	2.0	3.2	1.1	3.3	1.3	5.3	2.3
Taiwan	0.8	6.7	5.1	0.9	1.9	- 4.5	- 1.2	3.2
Hong Kong	2.6	- 0.0	5.9	1.0	3.0	1.7	3.5	N.A.
Singapore	1.8	- 0.5	2.6	4.9	3.5	- 2.8	1.7	5.7
Thailand	- 2.3	2.9	3.5	3.7	2.0	1.7	4.0	3.2
Malaysia	5.5	6.7	3.3	7.3	4.7	4.5	2.6	N.A.
The Philippines	8.5	6.9	3.4	7.2	3.5	8.0	5.7	8.2
(Y-o-y % change)								
Indonesia	5.1	5.0	5.0	5.0	4.7	4.7	4.7	5.0
Vietnam	5.1	5.3	6.1	7.0	6.1	6.5	6.8	7.0
India	5.8	7.5	8.3	6.6	6.7	7.6	7.7	7.3

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

[Real exports for NIEs and ASEAN4]



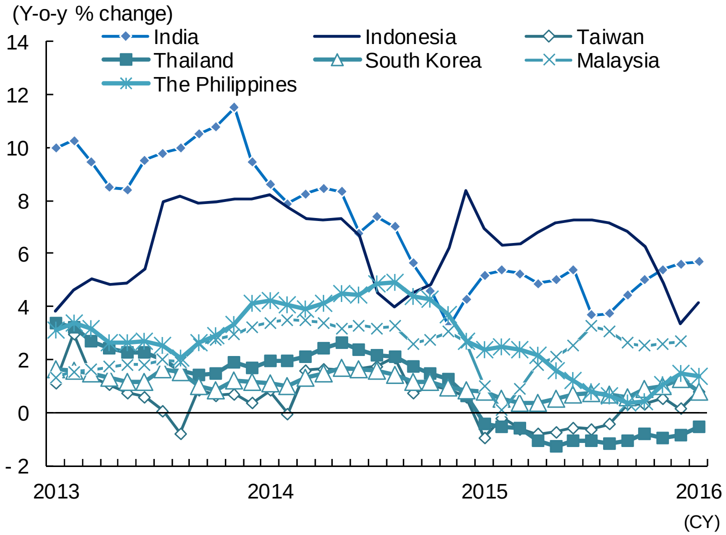
Notes: 1. 3-months backward moving average, seasonally-adjusted by MHRI.
2. ASEAN4 refers to Indonesia, Thailand, Malaysia, and the Philippines

Source: Made by MHRI based upon each country's statistics, CPB, and CEIC Data.

Other Asian economies: acceleration of the economy appears unlikely due to the weakness of exports

- In 2016, the economies of Asia (ex China) are forecast to slow down from the previous year.
  - Exports should remain soft due to the economic stagnation among oil and commodity-producing countries stemming from the slump in the price of commodities such as crude oil and the slowdown of US economic growth.
  - Despite the implementation of economic stimulus measures such as monetary easing due to persistently low inflation, the measures will most likely lack power to offset the weakness of exports.
- In 2017, a significant acceleration of the Asian economies (ex China) is unlikely.
  - Exports should pick up, reflecting the acceleration of the US and European economies from the previous year.
  - However, the impact of the measures to support the economy should fade due to a gradual contraction of the monetary easing mode due to factors such as the resumption of US rate hikes.

[*Consumer price index* (CPI) by countries]



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

[Monetary and currency policy since Oct-Dec 2015]

Country	Easing Measure	Period
Singapore	Easing to slow the appreciation of the Singapore Dollar	Oct
Indonesia	Lowered primary reserve requirement ratio	Dec
Taiwan	Cut policy interest rates	Dec
Vietnam	Shifted to daily setting of the reference rate for the currency	Jan
Indonesia	Cut policy interest rates	Jan
Malaysia	Lowered Statutory Reserve Requirement Ratio	Jan

Source: Made by MHRI

(Reference) Key political events

	2016		2017		2018	
US	Nov	Presidential election			Feb	Fed Chair Yellen's term of office ends
					Nov	Mid-term presidential elections
Europe	Feb	General election (Ireland)	Mar	General election (The Netherlands)	H1	General election (Italy)
			Apr-May	Presidential election (France)		
			Jun	Legislative election (France)		
			Sep	General election (Germany)		
Japan	Summer	Upper House election	Apr	Consumption tax hike	Apr	BOJ Governor Kuroda's term of office ends
					Sep	LDP general election
					Dec *	Lower House members' term of office end
Asia	Jan	Presidential & legislative election (Taiwan)	This year	Election of Legislative Council President (Hong Kong)	May	Legislative election (Malaysia)
	Mar	Selection of president (Myanmar)	Dec *	Presidential election (South Korea)	Autumn	3rd Plenary Session of the CPC Central Committee (China)
	Mar *	NPC (13th 5-Year Plan scheduled) (China)	Autumn	19th National Congress of the Communist Party of China (China)	This year	Upper house election (India)
	Apr	National assembly election (South Korea)			This year	Legislative election (Cambodia)
	May	Presidential & congressional election (The Philippines)				
	Sep *	Upper house & lower house elections (Australia)				
	Autumn	6th Plenary Session of the CPC Central Committee (China)				
	This year	Communist Party Congress (Vietnam)				
	This year	Upper house election (India)				
	This year	Legislative Council election (Hong Kong)				
Others	May	G7 Summit Meeting (Japan)			Mar	Presidential election (Russia)
	Aug	Brazil summer Olympic Games			Oct	Presidential election (Brazil)
	Sep	G20Summit Meeting (China)				
	Sep	Lower House election (Russia)				* = Approximate date

Source: Made by MHRI

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