MIZUHO

One MIZUHO

FY2015, FY2016 Economic Outlook

- Keep a close eye upon EM downside risks amid the sluggish recovery of the global economy -

November 17, 2015

Mizuho Research Institute

One MIZUHO
Building the future with you

Key points of our forecast

- The global economy is slowing down in 2015 due to the downturn of emerging market (EM) and commodity-producing countries. Even though the global economy should pick up in 2016, driven by the rise of Japanese and US economic growth and the reduced rate of contraction among the commodity-producing countries, the pace of global economic recovery will likely be sluggish amid the ongoing EM slowdown.

- The global balance sheet adjustment process is entering Phase 3 spilling over to the EM countries.

- A further economic slowdown of the EM and commodity-producing countries stemming from China's economic slowdown and the impact of the US interest rate hike is a source of concern for the global economy. Argentina, Brazil, Turkey and Venezuela are most vulnerable.

- The Federal Reserve Board (FRB) will likely begin to lift interest rates in December 2015, followed by subsequent shallow rate hikes. US long-term interest rates should also follow a mild upward trajectory. The timing of the FRB's move may be postponed if the EM and commodity-producing economies slow further.

- Even though the Japanese economy shrank for the second quarter in a row in the Jul-Sep quarter of 2015, the economy should return to a recovery track from the Oct-Dec quarter of 2015 driven by the upturn of personal consumption and exports.

- Although Japan's inflation rate should hover around zero toward the end of 2015, it should rise to around the lower half of the1%-level in the second half of FY2016. The Bank of Japan (BOJ) may consider a further bout of monetary easing in the first half of 2016 while monitoring the underlying trend in inflation.

Overview – keep a close eye upon EM downside risks amid the sluggish recovery of the global economy

- We expect the global economy (the weighted average of countries and regions included in MHRI's forecast) to slow down in 2015 (+3.2%) from the year before (2014: +3.5%). Although the pace of global economic growth should recover to +3.4% in 2016, the improvement would be underwhelming when excluding the impact of the reduced rate of contraction among commodity-producing countries.

- The US economy is predicted to follow a gradual expansion, with the FRB starting its interest rate hike from December 2015. Although the Japanese economy shrank for two quarters in a row, it should return to a gradual recovery track. The eurozone economy should continue to follow a gradual expansion amid the continuation of a low-inflation environment, providing reasons to believe that the ECB will implement further monetary easing measures in December 2015.

- The global balance sheet adjustment process is spreading from (1) private-sector debt among developed economies (DM), (2) DM sovereign debt, to (3) EM debt. As a result, the EM economies will lack power as an engine of global economic growth. Despite a temporary recovery of the Chinese economy toward the end of 2015, a slowdown is expected again from 2016. Economic growth among other EM countries is tepid, while Russia and Brazil should record negative growth for the second year in a row.

- Although our main scenario outlook is a gradual recovery of the global economy, it will be necessary to pay attention to systemic risks stemming from the downturn of the Chinese economy and the deterioration of the EM and commodity-producing economies. In such event, this would lead to a postponement of the US interest rate hike and deceleration of the overall global economy including the DM economies. Furthermore, note the rise of geopolitical risks reflecting the terrorist attacks in Paris.

Even though the global economy will recover toward 2016, the pace of growth will be tepid

[Outlook on the global economy]

Calendar year	2013 (Actual)	2014 (Actual)	2015 (Forecast)	2016 (Forecast)	2015 (Y-o-y % change) (breadth of revision from September)	2016 (Y-o-y % change) (breadth of revision from September)	2015 (% point) (breadth of revision from June)	2016 (% point) (breadth of revision from June)
Total of forecast area	3.3	3.5	3.2	3.4	3.1	3.5	0.1	-0.1
Japan, US. Eurozone	0.9	1.5	1.8	1.9	1.8	2.0	—	-0.2
US	1.5	2.4	2.4	2.5	2.5	2.5	-0.1	—
Eurozone	-0.2	0.9	1.5	1.4	1.3	1.5	0.2	-0.1
Japan	1.6	-0.1	0.6	0.9	0.7	1.6	-0.1	-0.7
Asia	6.4	6.3	6.2	6.1	6.1	6.0	0.1	0.1
China	7.7	7.3	7.0	6.7	6.9	6.6	0.1	0.1
NIEs	2.9	3.3	2.0	2.3	2.0	2.4	—	-0.1
ASEAN5	5.1	4.6	4.6	4.4	4.4	4.3	0.2	0.1
India	6.4	7.1	7.4	7.7	7.4	7.7	—	—
Australia	2.0	2.7	2.2	2.5	2.2	2.5	—	—
Brazil	2.7	0.1	-3.0	-1.5	-2.5	-0.8	-0.5	-0.7
Russia	1.3	0.6	-4.1	-0.4	-4.1	0.1	—	-0.5
Japan (FY)	2.1	-0.9	0.8	1.5	1.1	1.9	-0.3	-0.4
Crude oil price (WTI, USD/bbl	98	93	49	52	51	54	-1	-2

Note: The total of the forecast area is calculated upon the 2012 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.

The Japanese economy – gradual recovery despite lingering uncertainties. The core inflation rate should rise to the lower half of the 1%-level

- The Japanese economy has slid into a soft patch after recording a contraction for the second quarter in a row in the Jul-Sep quarter of 2015. In addition to a sharp fall of inventory investment into negative territory, businesses are turning more cautious on capital investment. Despite the upturn of personal consumption and exports, both lack momentum.

- From the Oct-Dec quarter of 2015, the Japanese economy should return to a gradual recovery track on the back of solid corporate earnings and labor market conditions. FY2015 growth forecast: +0.8% (the FY2015 growth rate would be virtually zero (+0.1%) when excluding the impact of the strong growth in the second half of FY2014).

- In FY2016, a last-minute rush of demand prior to the consumption tax hike (in April 2017) will emerge in the second half of the fiscal year. The rise of personal consumption and housing investment should push up growth to +1.5% in FY2016.

- Given the sharp fall of crude oil prices, the year-on-year (y-o-y) change of the core CPI should trend around zero toward the end of 2015. From then onward, energy prices should rise to positive territory along with the gradual rise of the underlying inflation rate, lifting the inflation rate to around the lower half of the 1%-level in the latter half of the forecast horizon. Even so, inflation will likely fall short of the BOJ outlook that inflation will reach around 2% “around the second half of FY2016”.

The Japanese economy: a return to a gradual recovery track despite uncertainties

[Outlook on the Japanese economy]

		2013	2014	2015	2016	2014		2015				2016				2017
		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	2.1	-0.9	0.8	1.5	-0.3	0.3	1.1	-0.2	-0.2	0.4	0.1	0.4	0.5	0.5	0.8
	Q-o-q % ch p.a.	--	--	--	--	-1.1	1.2	4.6	-0.7	-0.8	1.6	0.2	1.6	2.1	2.0	3.2
Domestic demand	Q-o-q % ch	2.5	-1.4	0.7	1.4	-0.3	-0.0	1.1	0.0	-0.3	0.3	0.0	0.4	0.5	0.6	1.1
Private sector demand	Q-o-q % ch	2.3	-2.1	0.7	1.9	-0.7	-0.1	1.5	-0.2	-0.5	0.5	0.2	0.4	0.5	0.7	1.3
Personal consumption	Q-o-q % ch	2.5	-3.1	0.5	1.7	0.2	0.4	0.4	-0.6	0.5	0.3	0.2	0.2	0.3	0.6	1.8
Housing investment	Q-o-q % ch	9.3	-11.6	2.1	4.0	-6.8	-0.7	2.0	2.4	1.9	-1.8	-0.9	0.9	4.7	0.6	1.3
Capital investment	Q-o-q % ch	4.0	0.5	0.6	3.2	0.3	0.0	2.4	-1.2	-1.3	1.3	1.5	0.6	0.7	0.7	0.9
Inventory investment	Q-o-q contribution, % pt	-0.5	0.5	0.0	-0.2	-0.5	-0.3	0.5	0.3	-0.5	0.1	-0.1	0.1	-0.0	0.0	-0.3
Public sector demand	Q-o-q % ch	3.2	0.8	0.7	0.2	0.7	0.2	-0.0	0.8	0.2	-0.5	-0.5	0.2	0.4	0.3	0.3
Government consumption	Q-o-q % ch	1.6	0.4	1.4	1.1	0.3	0.3	0.3	0.6	0.3	0.1	0.1	0.3	0.4	0.4	0.4
Public investment	Q-o-q % ch	10.3	2.0	-1.4	-3.8	1.7	0.2	-1.3	2.1	-0.3	-2.9	-3.2	-0.4	0.1	0.1	0.1
External demand	Q-o-q contribution, % pt	-0.5	0.6	0.1	-0.0	0.1	0.3	-0.0	-0.2	0.1	0.1	0.0	0.0	0.0	-0.1	-0.3
Exports	Q-o-q % ch	4.4	7.9	1.6	4.3	1.6	2.9	1.9	-4.3	2.6	1.2	0.9	0.9	1.0	0.9	0.6
Imports	Q-o-q % ch	6.7	3.6	0.9	4.1	1.1	0.9	1.9	-2.8	1.7	0.5	0.8	0.8	0.9	1.5	2.0
GDP (nominal)	Q-o-q % ch	1.8	1.6	2.4	2.1	-0.5	0.7	2.2	0.2	0.0	1.1	-0.6	1.0	0.7	1.0	0.1
GDP deflator	Y-o-y % ch	-0.3	2.5	1.5	0.7	2.1	2.3	3.5	1.5	2.0	2.2	0.5	0.7	0.7	0.6	0.6
Domestic demand deflator	Y-o-y % ch	0.4	2.1	0.3	0.9	2.3	2.1	1.5	0.0	0.2	0.4	0.7	0.8	0.8	1.1	1.0

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

Japan: core inflation will rise to the lower half of the 1%-level. The underlying inflation rate will rise.

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

		2013	2014	2015	2016	2014		2015				2016				2017
		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	3.2	-0.4	-0.7	3.1	-1.4	0.8	1.5	-1.4	-1.2	1.1	0.6	0.8	0.8	1.0	1.3
Ordinary profits	Y-o-y % ch	20.9	5.1	14.5	9.0	7.4	12.1	-1.0	21.0	10.9	9.0	17.0	10.1	9.0	8.0	8.9
Nominal compensation of employees	Y-o-y % ch	1.0	1.7	1.0	2.0	2.2	1.8	1.4	0.8	1.7	0.6	1.1	1.9	1.5	2.3	2.2
Unemployment rate	%	3.9	3.5	3.3	3.3	3.6	3.5	3.5	3.3	3.4	3.3	3.3	3.3	3.3	3.3	3.3
New housing starts	P.a., 10,000 units	98.7	88.0	92.3	95.1	86.1	88.0	89.6	95.3	91.5	90.7	91.3	95.4	95.7	96.9	91.9
Current account balance	P.a., JPY tril	1.5	7.9	16.7	16.1	2.0	10.7	15.5	16.9	14.8	20.8	13.8	19.3	15.5	18.6	10.5
Domestic corporate goods prices	Y-o-y % ch	1.9	2.8	-2.4	0.6	4.0	2.4	0.5	-2.2	-3.6	-2.5	-1.1	-0.1	0.3	1.1	1.2
Consumer prices (ex fresh food)	Y-o-y % ch	0.8	2.8	0.2	1.1	3.2	2.7	2.1	0.1	-0.1	0.1	0.6	0.6	1.0	1.3	1.3
Consumer prices (ex fresh food, ex consumption tax)	Y-o-y % ch	0.8	0.8	0.2	1.1	1.2	0.7	0.1	0.0	-0.1	0.1	0.6	0.6	1.0	1.3	1.3
Consumer prices (ex food (ex alcohol) and energy, ex consumption tax)	Y-o-y % ch	0.2	0.5	0.7	0.7	0.6	0.4	0.4	0.4	0.8	0.8	0.6	0.6	0.6	0.8	0.7
Uncollateralized overnight call rate	%	0.04	0.02	0～0.10	0～0.10	0.03	0.07	0.02	0.01	0.01	0～0.10	0～0.10	0～0.10	0～0.10	0～0.10	0～0.10
Yield on newly-issued 10-yr JGBs	%	0.69	0.48	0.40	0.55	0.53	0.44	0.34	0.40	0.39	0.35	0.35	0.45	0.55	0.55	0.60
Nikkei average	JPY	14,424	16,273	19,800	21,500	15,562	16,705	18,175	20,049	19,412	19,200	20,500	21,100	21,400	21,700	21,800
Exchange rate	JPY/USD	100	110	123	127	104	115	119	121	122	123	126	126	126	127	127
Crude oil price (WTI nearest term contract)	USD/bbl	99	81	49	54	97	73	49	58	47	43	49	51	53	54	56

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 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, *Labor 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.

Financial markets: even after the US interest rate hike, long term interest rates should continue to follow a gradual uptrend due to monetary easing in Japan and the eurozone

- There are lingering concerns regarding the slowdown of the Chinese and EM economies in the financial markets. We expect the US to start raising interest rates in December 2015. However, this may be subject to delay depending upon developments in overseas economies. The market will tend to be swayed by speculation surrounding further monetary easing by the BOJ and ECB.

- The BOJ is expected to implement a further bout of monetary easing, given the slowdown of the rise of inflation. Even though the yen should remain weak against the dollar due to the divergence in direction of monetary policy between the US and Japan, the pace of yen weakening will be limited due to concerns regarding the strong dollar. Japanese stocks should remain firm, reflecting the improvement of corporate earnings.

- The rise of Japan's long-term interest rates remained subdued amid the fall of government bond issues due to both demand-side and supply-side factors - reflecting the BOJ's JGB purchases on the demand-side and and rise of tax revenues on the supply-side. Looking forward, domestic interest rates will also be subject to upward pressures amid the rise of the stock market and US interest rates. However, fluctuations in overseas interest rates and speculation on the BOJ's exit policy may lead to the rise of volatility.

Financial markets: the dollar should strengthen to the upper half of the JPY120-level and the Nikkei average should rise to the JPY21,000-level in the second half of FY2016

[Outlook on the financial markets (November 2015)]

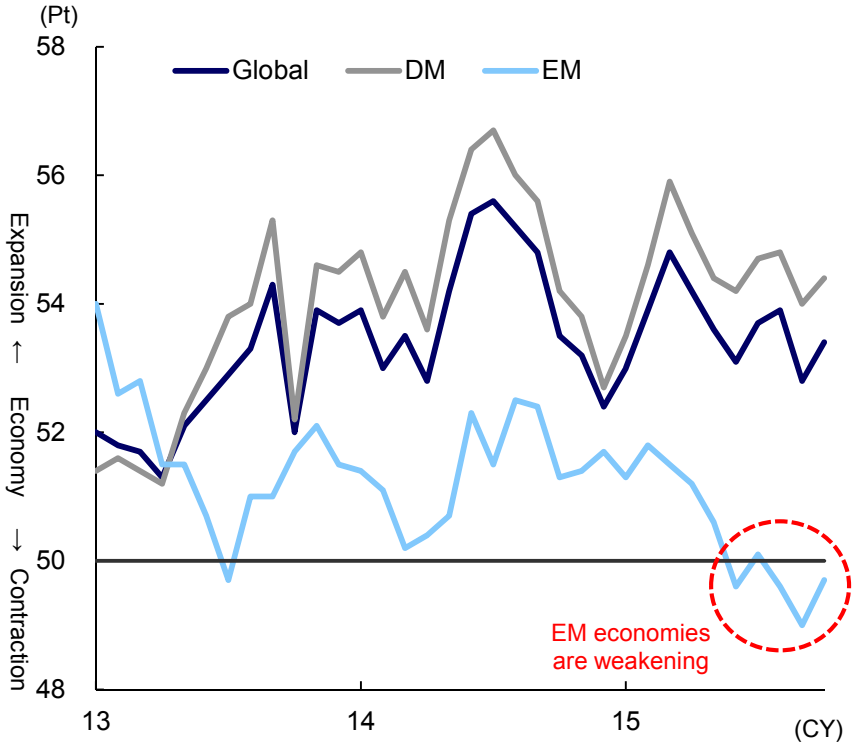
		2014	2015	2016	2015				2016				2017
		FY			Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar
Japan													
Uncollateralized O/N call rate	(end-of period rate, %)	0～0.1	0～0.1	0～0.1	0～0.1	0～0.1	0～0.1	0～0.1	0～0.1	0～0.1	0～0.1	0～0.1	0～0.1
Euroyen TIBOR	(3-mo, %)	0.20	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Interest rate swaps	(5-yr, %)	0.26	0.23	0.25	0.24	0.27	0.23	0.20	0.20	0.25	0.25	0.25	0.30
Newly-issued JGBs	(10-yr, %)	0.48	0.40	0.55	0.34	0.40	0.39	0.35	0.35	0.45	0.55	0.55	0.60
Nikkei average	(JPY)	16,273	19,800	21,500	18,175	20,049	19,412	19,200	20,500	21,100	21,400	21,700	21,800
US													
Federal funds rate	(end-of-period rate, %)	0～0.25	0.50～0.75	1.50～1.75	0～0.25	0～0.25	0～0.25	0.25～0.50	0.50～0.75	0.75～1.00	1.00～1.25	1.25～1.50	1.50～1.75
Newly-issued government bonds	(10-yr, %)	2.33	2.25	2.65	1.96	2.16	2.21	2.30	2.40	2.50	2.60	2.70	2.80
Dow Jones average	(USD)	17,183	17,600	18,400	17,806	18,007	17,066	17,500	17,800	18,000	18,200	18,500	18,800
Eurozone													
ECB key policy interest rate	(end-of-period rate, %)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
German government bonds	(10-yr, %)	0.90	0.60	0.60	0.35	0.53	0.70	0.60	0.50	0.50	0.60	0.60	0.70
Forex													
JPY/USD exchange rate	(JPY/USD)	110	123	127	119	121	122	123	126	126	126	127	127
USD/EUR exchange rate	(USD/EUR)	1.27	1.09	1.03	1.13	1.11	1.11	1.07	1.05	1.04	1.03	1.03	1.03
Crude oil (WTI futures)	(USD/bbl)	81	49	54	49	58	47	43	49	51	53	54	56

Notes: The shaded areas are forecasts. The forecasts are averages of the relevant periods. However, the uncollateralized overnight call rate, federal funds rate and ECB policy interest rates are end-of-period rates.
Euroyen TIBOR (360-day basis). 5-yr swaps (fixed interest rate toward 6-mo LIBOR. Forex rates are based upon New York closing rates.
Source: Made by MHRI based upon Bloomberg.

1. Current state of the global economy: slowdown due to the weakness of the EM as an driver of growth

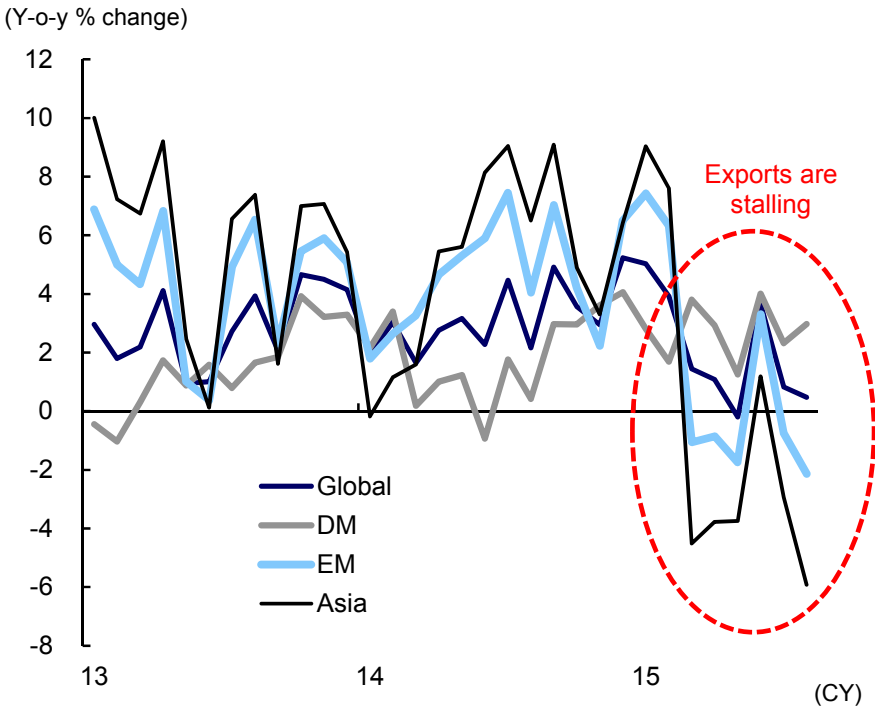
- The global economy is slowing down, given the weakening of the emerging market (EM) and commodity-producing economies.
  - There are strong concerns regarding the slowdown of the EM economies as indicated by the ongoing fall of the composite PMI below 50.

[Composite PMI of DM and EM economies]



Source: Made by MHRI based upon Markit.

[Trends in the export volume index]

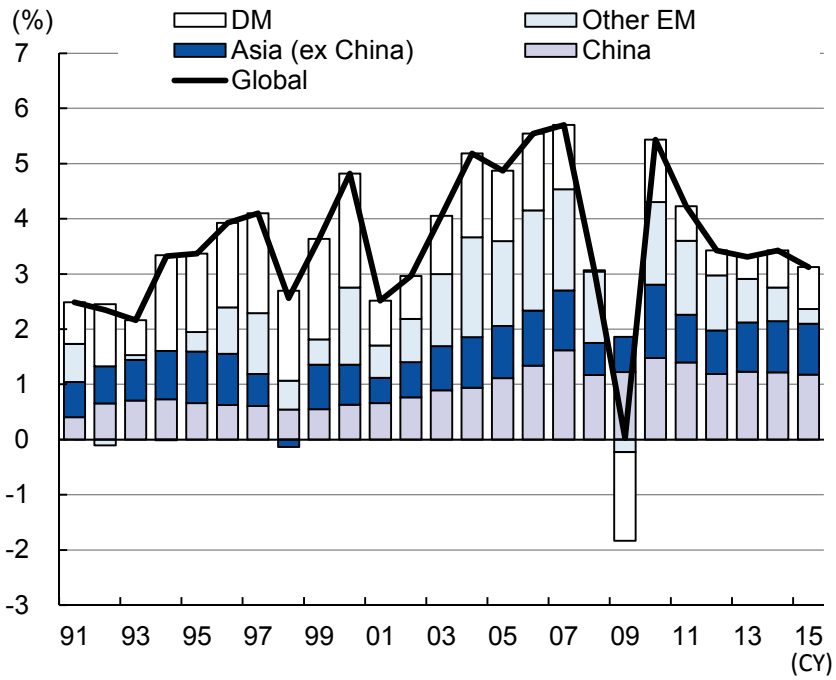


Source: Made by MHRI based upon CPB Netherlands Bureau for Economic Policy and Analysis..

The EM economies are peaking out as an engine of global growth

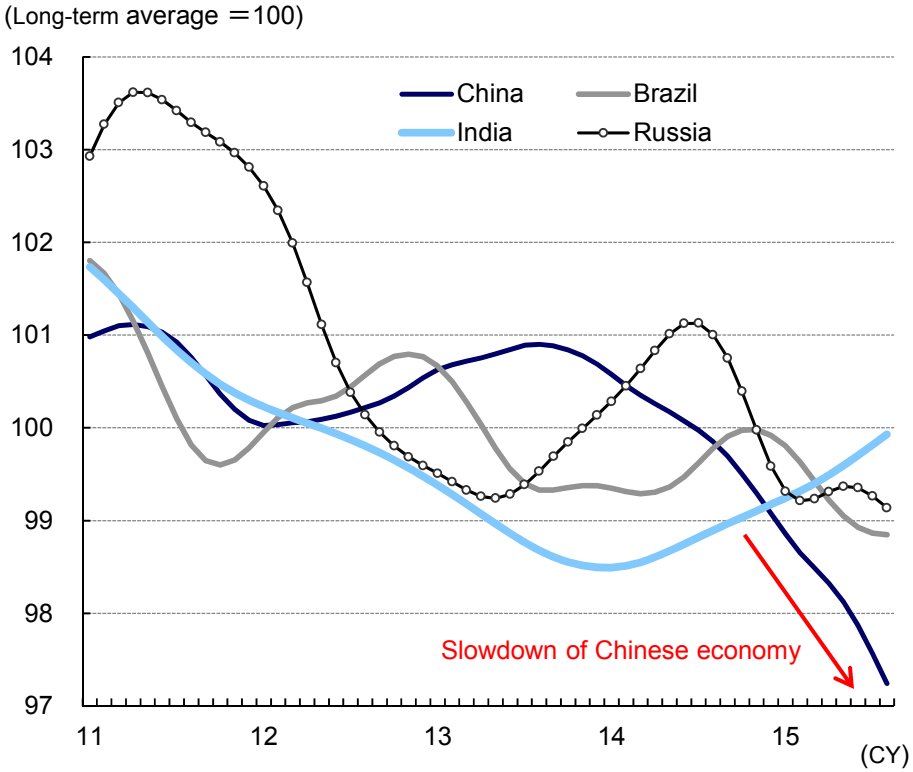
- In recent years, the EM economies served as the main engine of global economic growth.
  - China alone contributes 30% - and the Asian economies as a whole accounts for 60% - of global growth.

[Global economic growth (factor decomposition)]



Note: The NIEs are categorized in Asia (EM). Readings on 2015 are IMF projections.
Source: Made by MHRI based upon IMF.

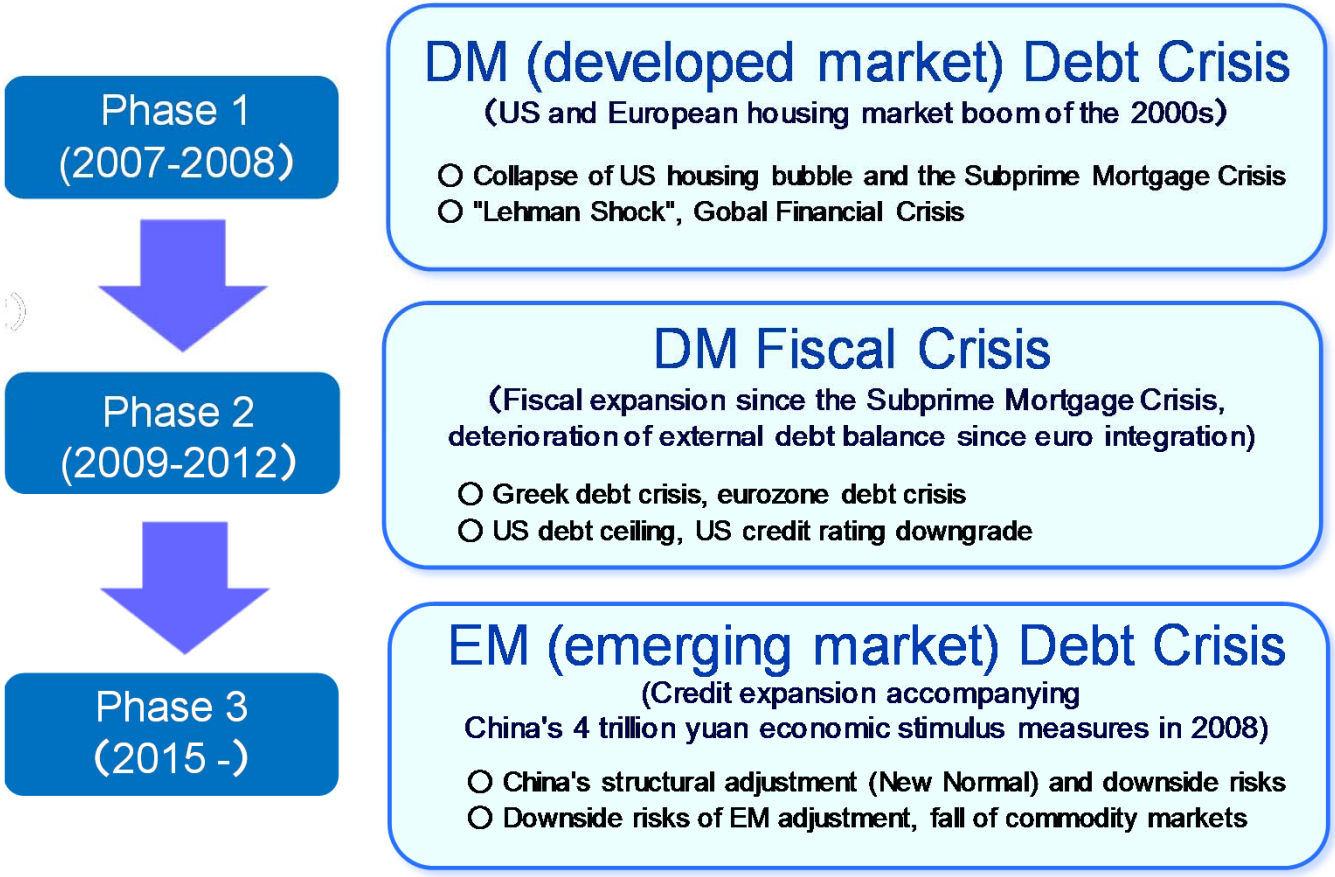
[OECD leading indicators (BRICs)]



Sources: Made by MHRI based upon OECD.

The global balance sheet adjustment process since the 2000s is entering Phase 3, the "EM Debt Crisis"

[Diagrammatic representation of the Three Phases of the global balance sheet adjustment process]

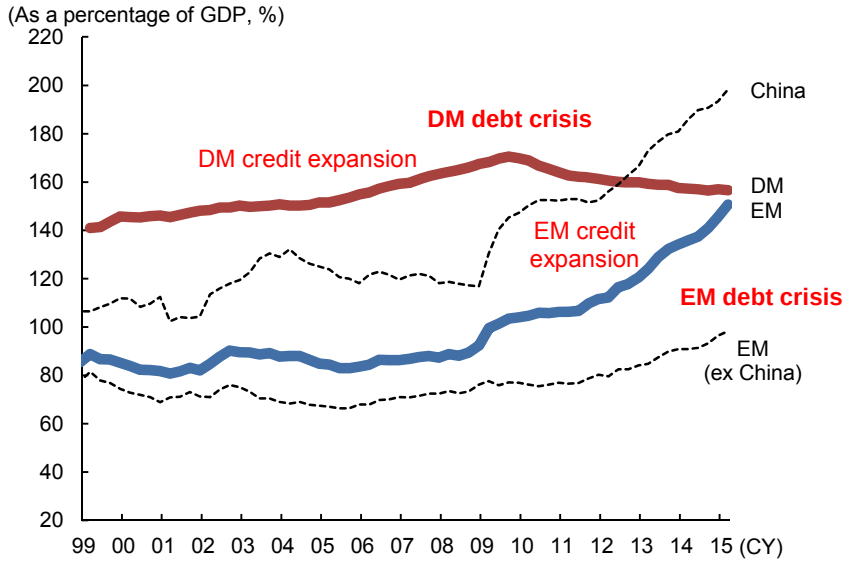


Source: Made by MHRI based upon Bloomberg.

EM concerns stem primarily from the risk of economic slowdown due to balance sheet adjustment

- EM countries are at the brink of balance sheet adjustment due to the sharp rise of private-sector debt since 2008.
- Countries with above-trend ratios of private-sector debt to GDP require attention due to the risks of the rise of balance sheet adjustment pressures.
- As shown by the deviation from the average debt-service ratio, debt-service burdens are rising in Russia and Hong Kong, making them vulnerable to the rise of interest rates and fall of income.

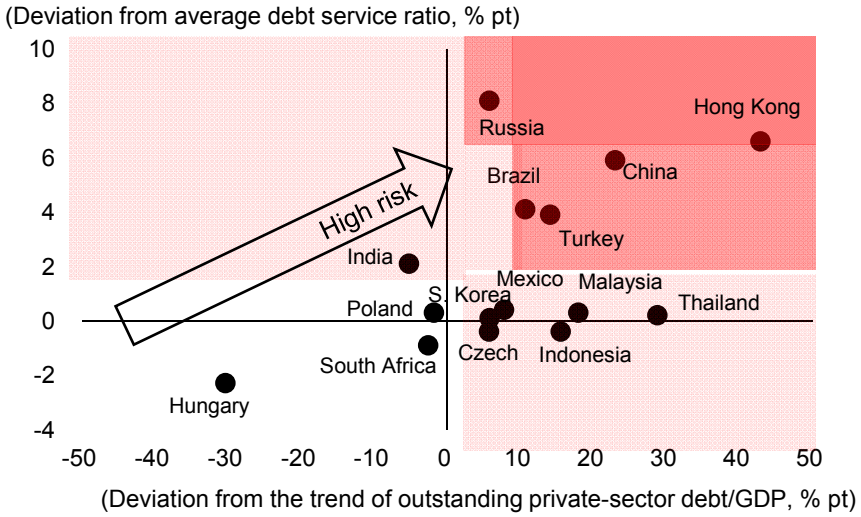
[Rising EM private-sector debt]



Note: "EM" refers to the total of China, India, Hong Kong, South Korea, Singapore, Thailand, Malaysia, Indonesia, Brazil, Russia, South Africa, and Turkey.
"DM" refers to the total of the US, eurozone, UK and Japan.
Source: Made by MHRI based upon BIS.

[EM: private-sector debt and debt service burdens]

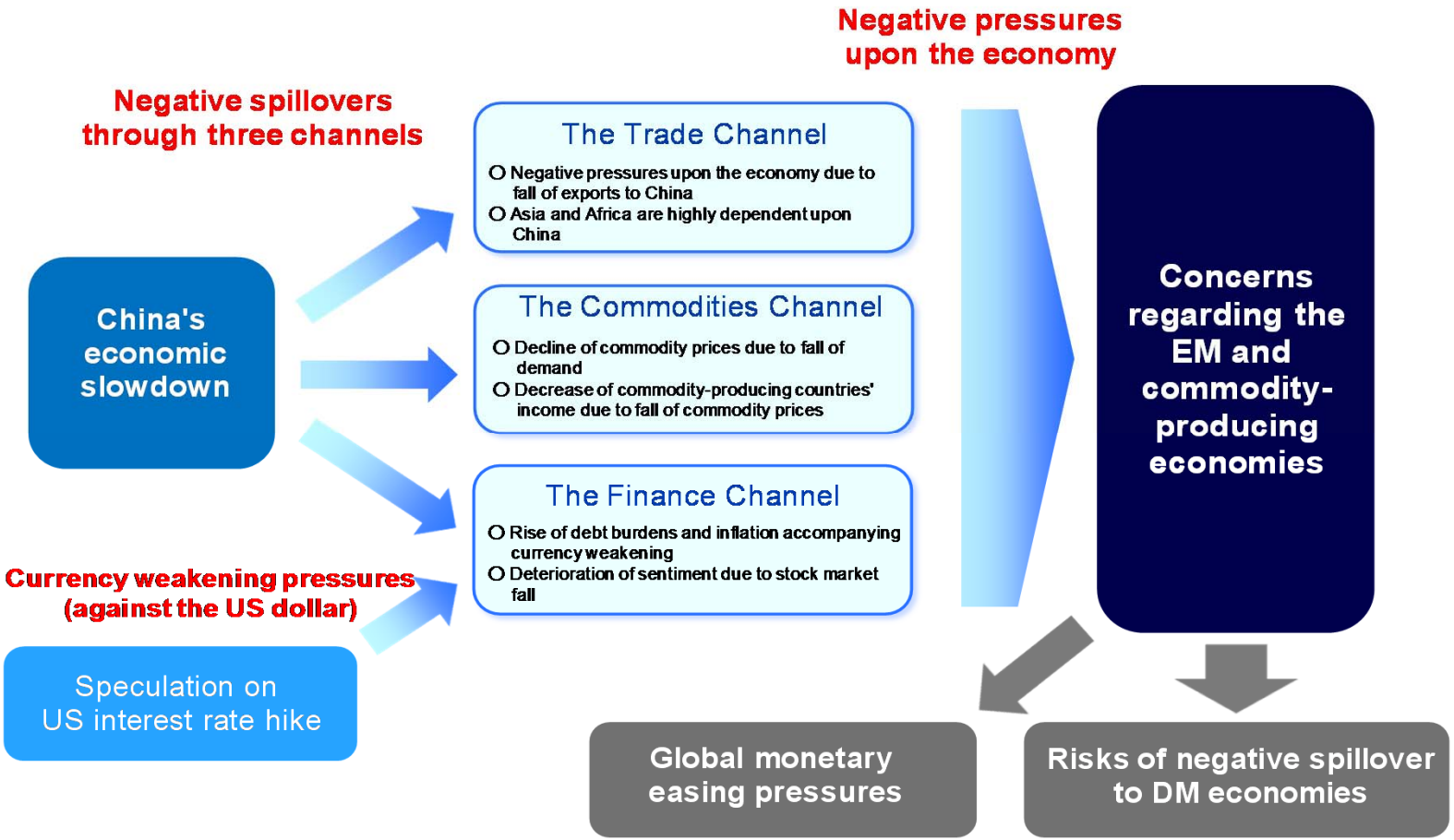
(March 2015)



Note: 1. Debt service ratios of EM countries included in the BIS *Debt Service Ratio* database.
2. The threshold of high/low risk refers to those according to the BIS.
3. Debt-service ratio = (repayment of principal + payment of interest) / gross domestic income
4. Private-sector debt refers to debt owed by the private non-financial sector to all financial institutions.
Source: Made by MHRI based upon BIS, *Debt Service Ratio, Credit to the non-financial sector.*

China's economic slowdown is multiplying concerns regarding the EM and commodity-producing economies via three channels

[Channels through which China's slowdown is spilling over to concerns regarding the EM economies]

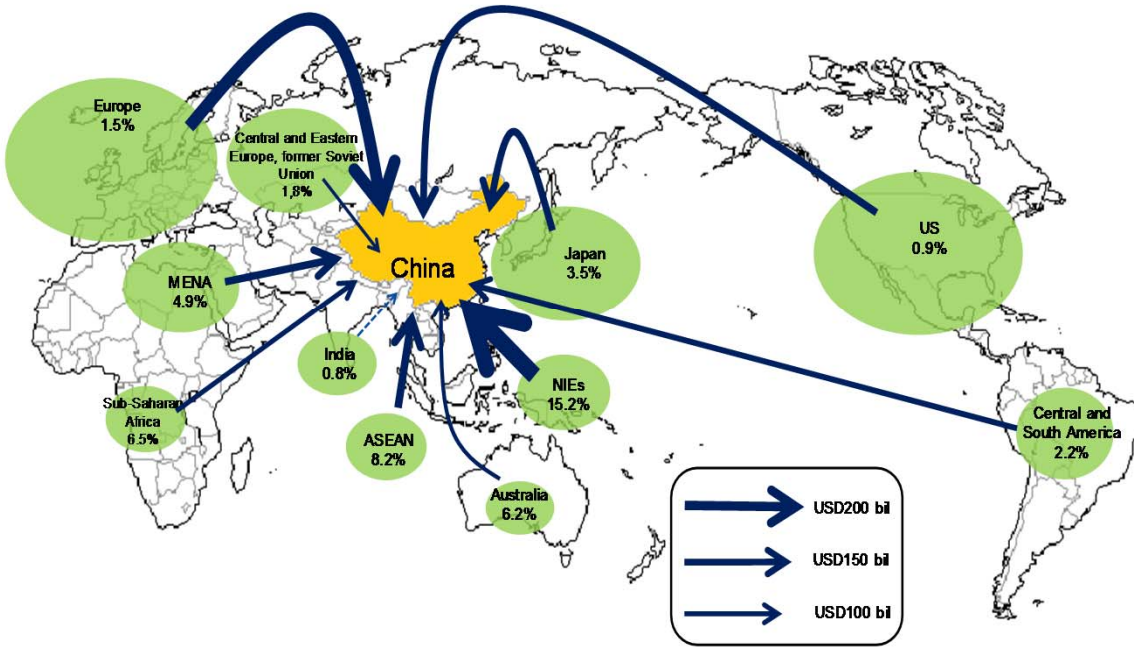


Source: Made by MHRI.

Channel 1: negative spillover of China's slowdown to the global economy through the "Trade Channel"

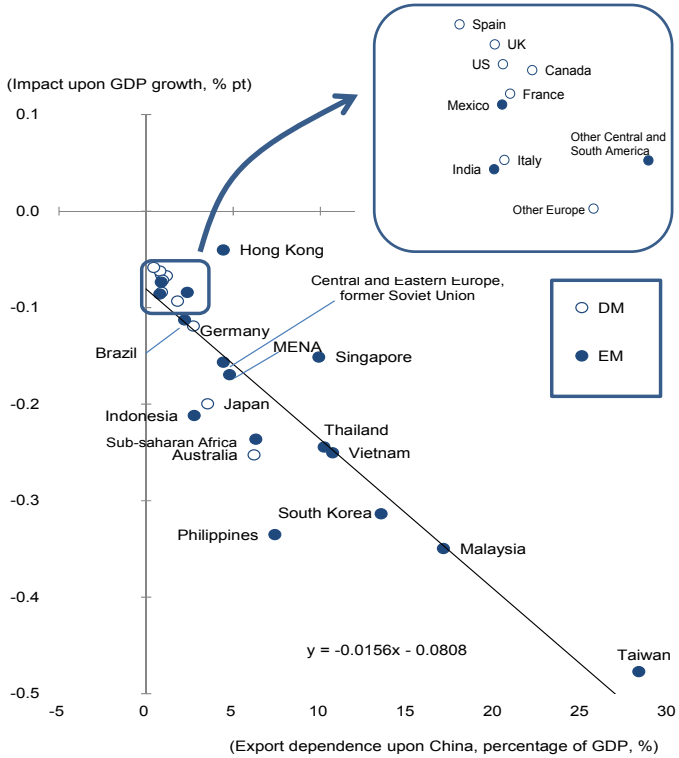
- Along with the expansion of the Chinese economy, the global economy has become more vulnerable to China's economic trends.
  - The impact of China's economy through trade upon the global economy has tripled since 2000 (calculated by MHRI).
  - The higher the dependency upon China-bound exports, the more vulnerable to spillovers. The negative spillover of China's economic slowdown upon EM economies is comparable to the negative impact of the slowdown of the US economy (MHRI calculations).

[The global structure of China's imports (2014)]



Note: The values of each of the regions are percentages of nominal GDP..
Source: Made by MHRI based upon IMF.

[Impact through the trade channel]

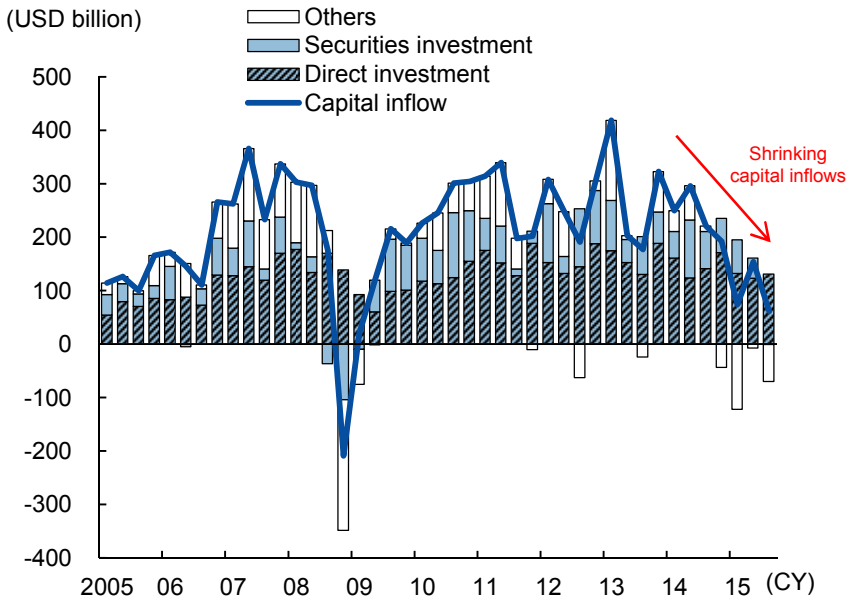


Note: "Impact upon GDP" refers to the potential impact of a 1% slowdown of China's real GDP growth upon other countries' real GDP via trade. Trial calculations including the negative impact upon domestic demand of each of the countries.
Source: Made by MHRI based upon IMF, World Bank.

Channel 2: dwindling capital flows to EM economies – shrinking capital inflows via the "Finance Channel"

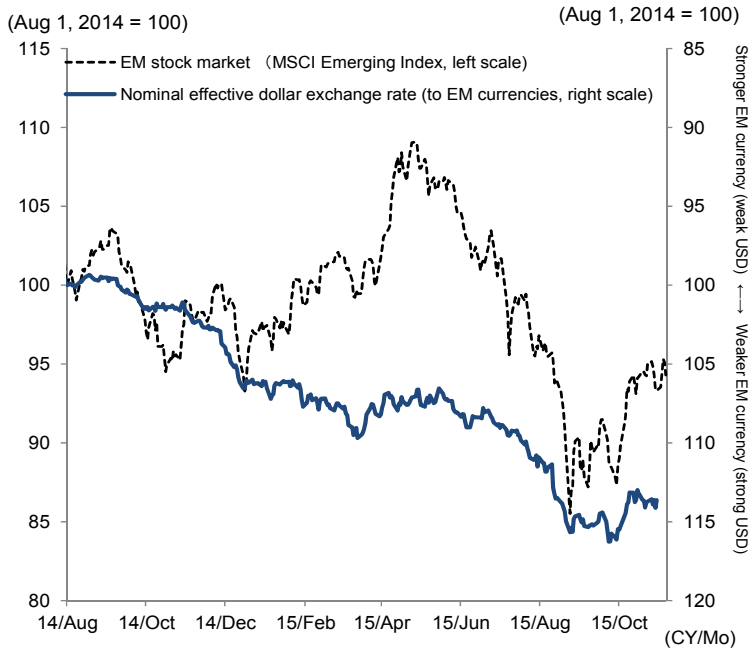
- Capital flows to EM countries are shrinking along with the slowdown of EM economies.
  - Despite the ongoing inflow of direct investment, securities investment to EM countries are falling.
- The EM economies are facing the fall of their stock markets and currencies, due in part to the contraction of capital inflows
  - In the global stock market crash this summer which was triggered by concerns regarding the future course of the Chinese economy, the EM countries were hit by a significant fall of their stocks and currencies.
  - Even with respect to EM stocks which are currently showing signs of recovery, the rebound is relatively weaker than DM stocks.

[Capital inflows to EM economies]



Note: Readings on the Apr-Jun quarter of 2015 are estimates by IIF, and those for the Jul-Sep quarter of 2015 are forecasts by IIF.
Source: Made by MHRI based upon IIF.

[Overview of the EM market]

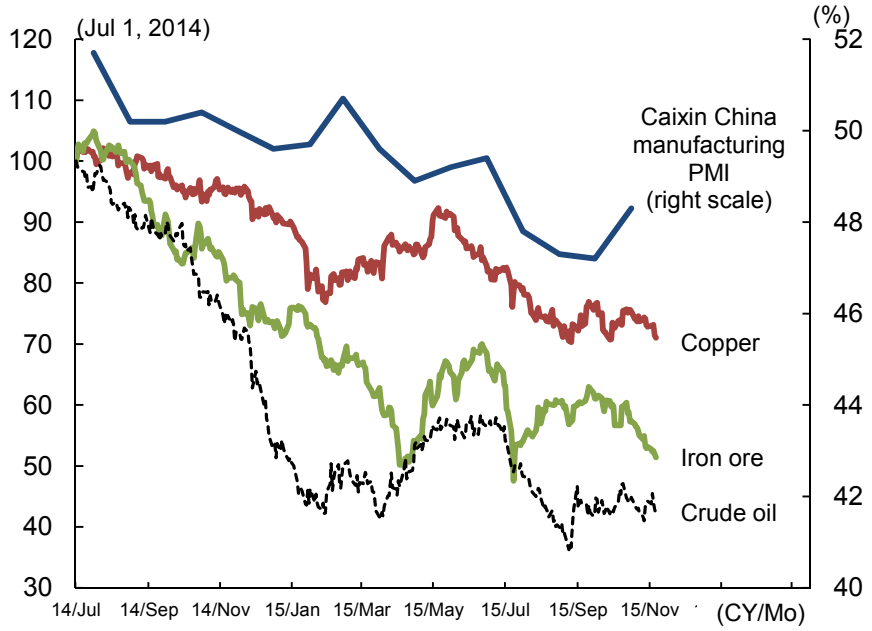


Source: Made by MHRI based upon Bloomberg.

Channel 3: prolonged fall of commodity markets – negative impact via the "Commodities Channel"

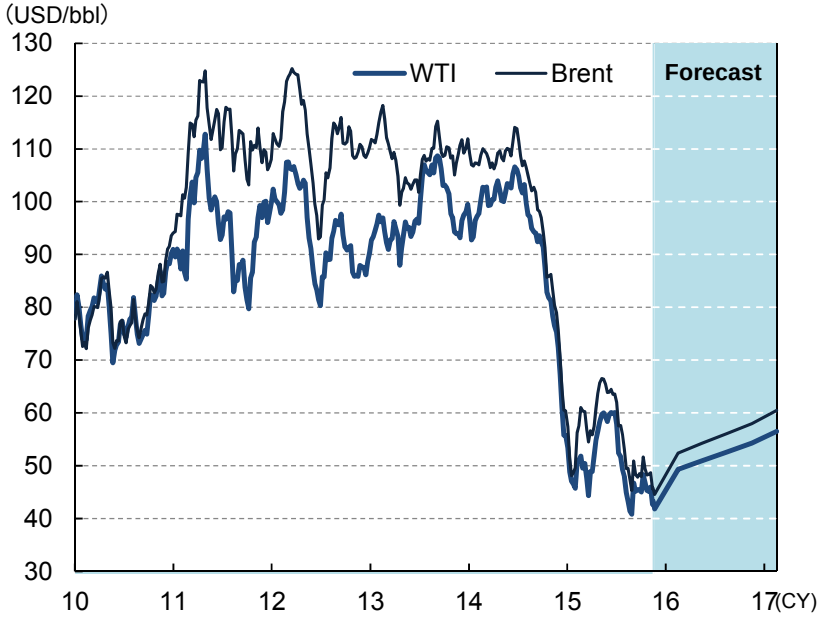
- Commodity markets are generally soft, reflecting the slowdown of the EM economies such as China.
  - The price of crude oil fell again the the USD40/bbl level. Copper and iron-ore markets are also continuing to follow a downtrend.
- The prolonged fall of commodity markets are serving as negative pressures upon the commodity-producing economies.
  - Even though a further fall of the crude oil market should come to a pause due to the progress of output adjustments, the price of crude oil is still expected to remain at a low USD50-level.
  - Overseas investment by oil- and commodity-producing countries – a major source of global money – remains lackluster.

[Business conditions in China and commodity markets]



Note: Crude oil expressed in terms of WTI, iron ore in terms of China's import price, and copper in terms of LME 3-mo futures
Source: Made by MHRI based upon Bloomberg.

[Crude oil market forecast]



Source: Made by MHRI based upon Bloomberg.

2. EM downside risks: bearish views on the economy are leading to the risks of capital outflows

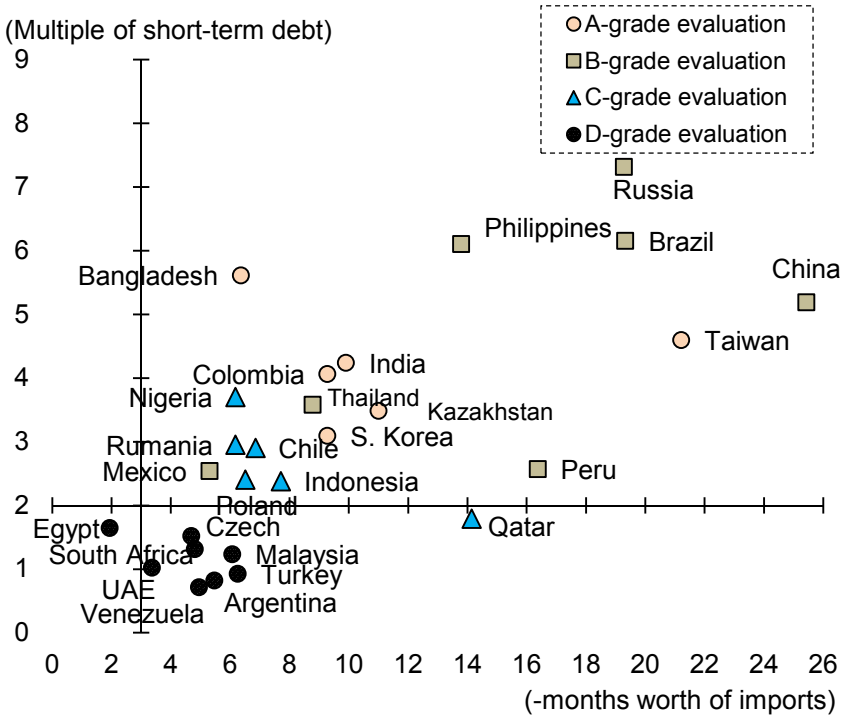
- The market believes that the EM economies will continue to weaken.
  - The bearish views on the EM economies – along with the prospects of a US interest rate hike – are leading to risks of capital outflows from the EM economies.
  - Even though many of the EM countries have foreign exchange reserves above short-term debt, there are many countries at the risk of a US dollar shortage in view of the amount of imports.

[Views on the EM economies]

	GDP share (market rate)	GDP growth (latest) (Y-o-y ch)	2016 (IMF projections)	Evaluation
Brazil	3.0	-2.4 (15/Jun)	-1.0	D
Russia	2.4	-4.5 (15/Jun)	-0.6	D
Venezuela	0.3	-2.3 (14/Sep)	-6.0	D
Argentina	0.7	1.9 (15/Jun)	-0.7	D
Taiwan	0.7	0.8 (15/Jun)	2.6	D
South Africa	0.5	1.6 (15/Jun)	1.3	D
China	13.4	6.9 (15/Sep)	6.3	C
Indonesia	1.2	4.7 (15/Jun)	5.1	C
Turkey	1.0	4.2 (15/Jun)	2.9	C
Malaysia	0.4	4.9 (15/Jun)	4.5	C
South Korea	1.8	2.7 (15/Sep)	3.2	C
Thailand	0.5	2.8 (15/Jun)	3.2	C
India	2.7	7.0 (15/Jun)	7.5	B
Mexico	1.7	2.2 (15/Jun)	2.8	B
Philippines	0.4	5.3 (15/Jun)	6.3	B
Vietnam	0.2	6.0 (14/Dec)	6.4	B

Note: Economic conditions evaluated on a scale of A (good), B (relatively good), C (weak). D (significantly weak) in view of latest real GDP growth (y-o-y ch), and 2016 IMF economic projections.
Source: Made by MHRI based upon Bloomberg.

[Evaluation of the level of foreign exchange reserves]



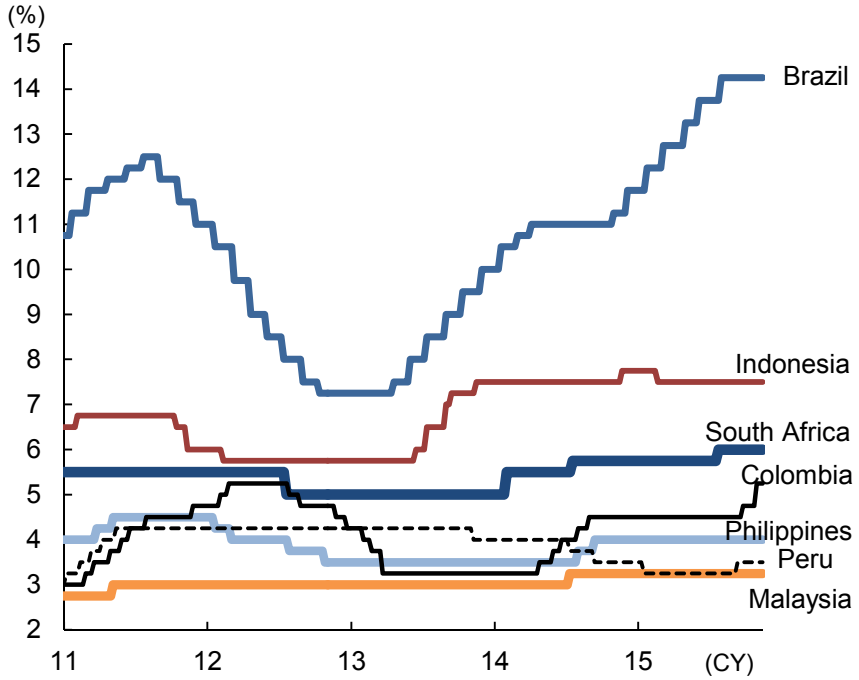
Note: Foreign exchange (forex) reserves to short-term debt. Evaluated on a scale of A to D on the basis of the change in foreign exchange reserves and forex reserves in terms of imports.
Source: Made by MHRI based upon statistics of each of the countries, World Bank, CEIC.

EM countries without the options of monetary easing or fiscal expansion face the most difficulties

- While some EM countries are opting to take monetary easing steps to address the deterioration of economic conditions, there are others which are unable to cut interest rates due to the need to address currency weakening and inflation.
- On another front, few countries have the fiscal leeway for government spending.
  - In particular, uncertainties regarding Brazil are rising sharply given its limited leeway for monetary easing and fiscal policy.

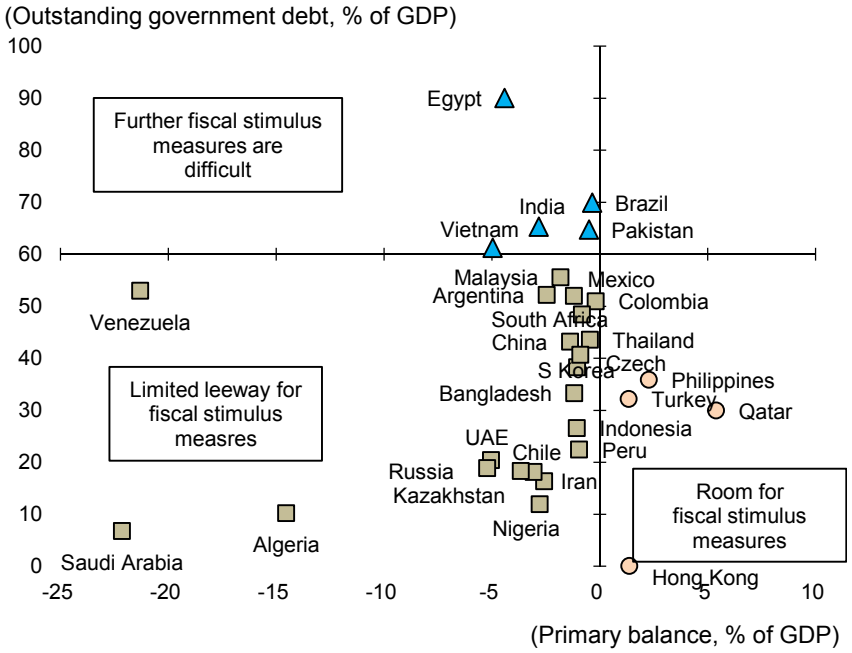
[Policy interest rates of EM countries]

(major countries which have not implemented interest rate cuts)



Source: Made by MHRI based upon Bloomberg.

[Fiscal conditions of EM countries]



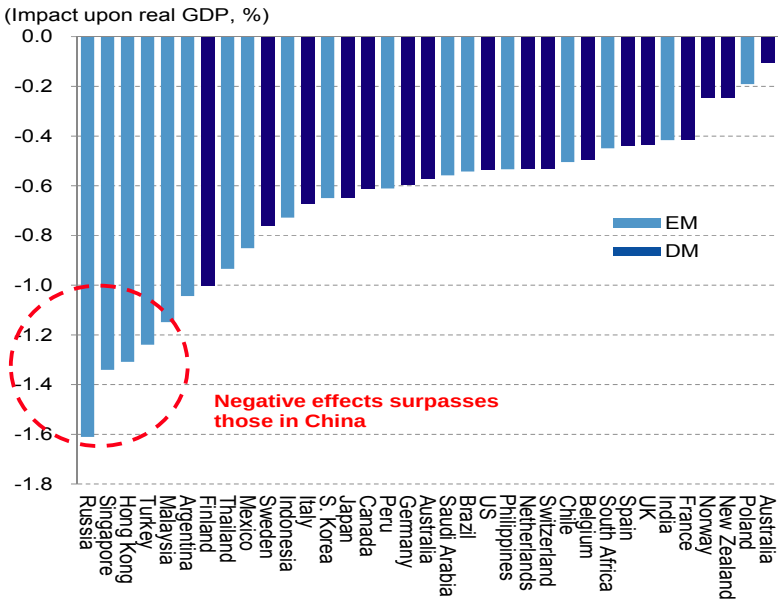
Source: Made by MHRI based upon IMF.

Keep a closer eye upon countries vulnerable to negative spillovers from China

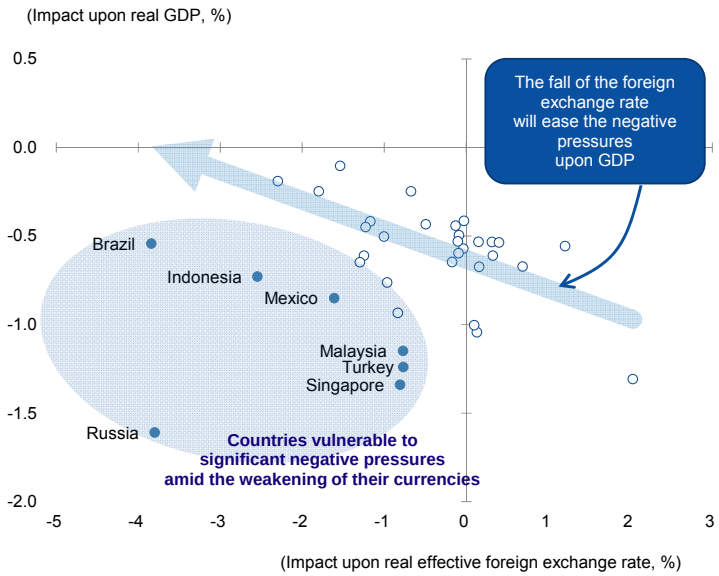
- China's economic slowdown is spilling over to the global economy (mainly the EM economies) through three channels.
  - Some EM countries are at the risk of serious negative effects surpassing those at the epicenter in China.
  - In particular, countries such as Russia may suffer simultaneous blows of a further currency weakening and fall of real GDP growth.

[The impact of China's economic slowdown (a 1% slowdown of growth) upon the global economy]

< The Impact upon real GDP (one year following the "China Shock") >



< The impact of the "China Shock" upon the foreign exchange rate and real GDP >



Note: Cumulative impact one year following the "China Shock". The size of the "China Shock" assumes that China's GDP is subject to a one-standard-deviation negative impact (China's GDP falls by approximately 0.7% one year on).

Source: Made by MHRI based upon Smith, L.V. and A. Galesi (2014),"GVAR Toolbox 2.0"(https://sites.google.com/site/gvarmodelling/gvar-toolbox), L. Gauvin and C. Rebillard (2015) "Towards Recoupling? Assessing the Global Impact of a Chinese Hard Landing through Trade and Commodity Price Channels".

EM risks are highest among Argentina, Brazil, Turkey and Venezuela

- In addition to lingering downside risks among the EM countries, note that the risks are relatively higher among some of the countries.
  - Argentina, Brazil, Turkey and Venezuela face high risks which may be triggered by a shortage of foreign currency reserves due to capital outflows and credit uncertainties due to the rise of debt burdens. The next in line are Indonesia, Russia, South Africa, Malaysia and Vietnam.
  - On the other hand, the risks related to the Chinese economy are relatively lower than other EM countries despite the need for closer scrutiny than before.

[Overall evaluation of EM risks]

	Overall evaluation	GDP share (2014)		Business conditions	Inflation rate	Current account balance	Foreign exchange reserves	Political, domestic conditions	Debt burden	Leeway for policy maneuver	Negative spillover from China's slowdown
		(Market rate)	(PPP basis)								
Brazil	D	3.0	3.0	D	C	D	B	C	C	D	C
Turkey	D	1.0	1.4	C	C	D	D	C	C	B	D
Argentina	D	0.7	0.9	D	D	B	D	C	-	C	D
Venezuela	D	0.3	0.5	D	D	C	D	D	-	C	-
Indonesia	C	1.2	2.5	C	C	C	C	C	B	C	D
Russia	C	2.4	3.3	D	D	A	B	B	C	B	D
South Africa	C	0.5	0.7	D	A	D	D	B	A	C	C
Malaysia	C	0.4	0.7	C	A	A	D	C	B	C	D
Vietnam	C	0.2	0.5	B	B	C	D	B	-	C	-
Mexico	B	1.7	2.0	B	A	C	B	B	B	C	D
Thailand	B	0.5	1.0	C	B	A	B	C	B	B	D
China	B	13.4	16.6	C	B	A	B	B	C	B	-
Taiwan	B	0.7	1.0	D	B	A	A	C	-	B	-
South Korea	B	1.8	1.6	C	B	A	A	B	B	B	C
Philippines	B	0.4	0.6	B	B	A	B	B	-	B	C
India	B	2.7	6.8	B	A	B	A	B	A	C	B

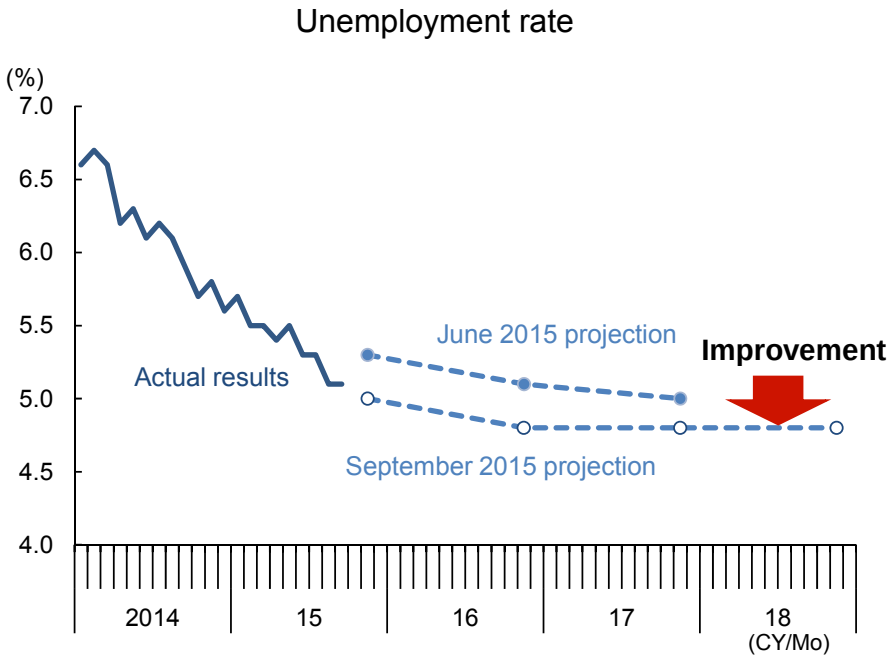
Note: Overall evaluation based upon evaluations of each of the factors. Evaluated on a four-pt scale of (A) good, (B) relatively good, (C) weak (concerns), and (D) significant weakness (significant concerns)

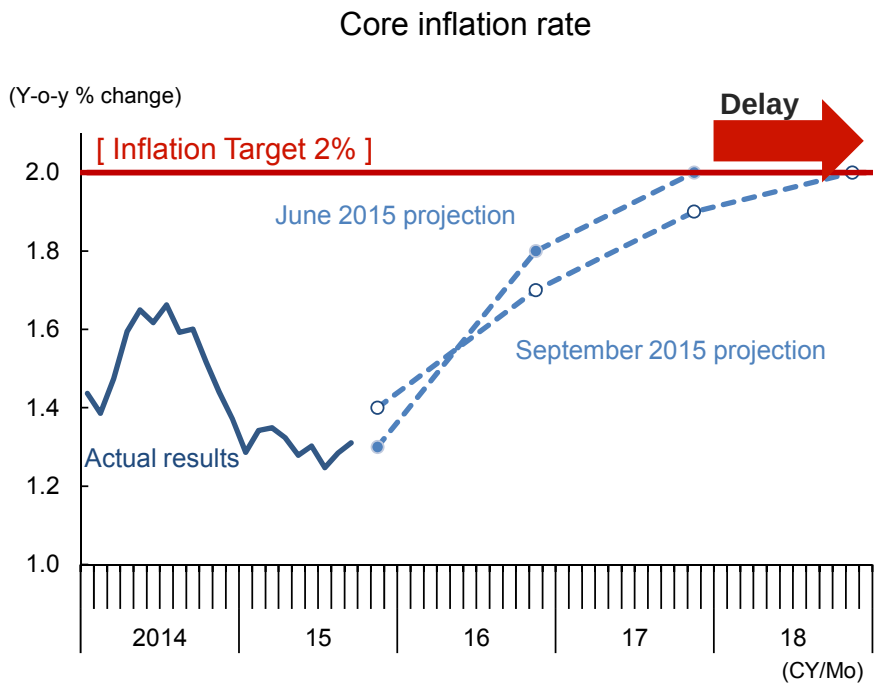
Source: Made by MHRI based upon statistics of each of the countries, IMF, World Bank, CEIC.

3. The US is moving toward normalization: the FRB will start its interest rate hike in December – at a gradual pace

- The FRB has been scrutinizing the appropriate time to start raising interest rates, on the basis of projections that both employment conditions and inflation will continue to improve at a gradual pace.
  - Projections on the unemployment rate improved further in the FOMC's economic projections in September 2015. On the other hand, the timing to achieve the inflation target was delayed due to the impact of the strong dollar and crude oil price falls.

[FOMC members' economic projections]



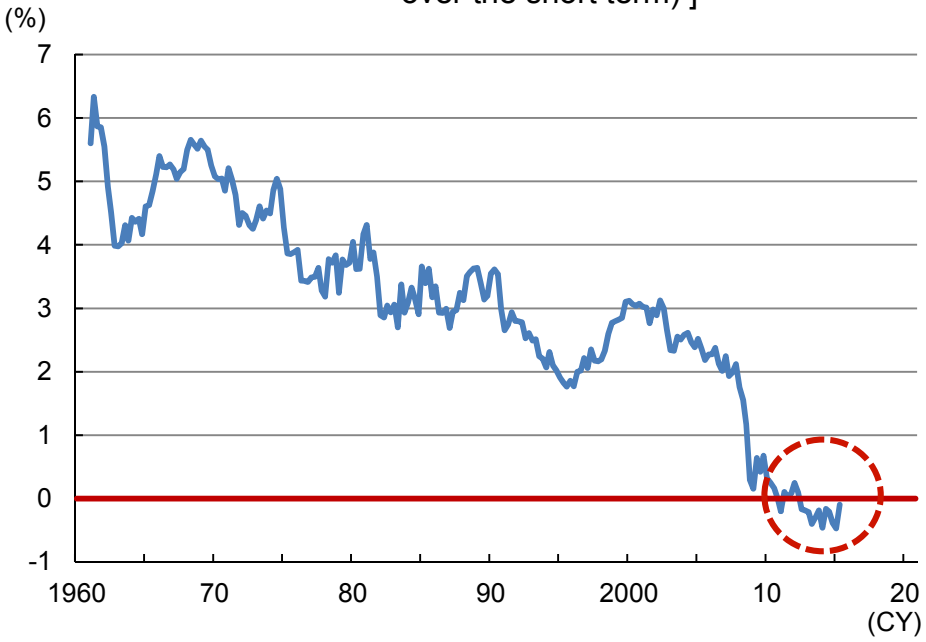


Note: The core inflation rate refers to the personal consumption expenditures deflator. The projections refer to the central tendency of the projections by FOMC members.
Source: Made by MHRI based upon US Department of Labor, US Department of Commerce, FRB.

The short-term real equilibrium interest rate is around zero. The long-term real equilibrium interest rate has fallen to 1.5% (from over 2%)

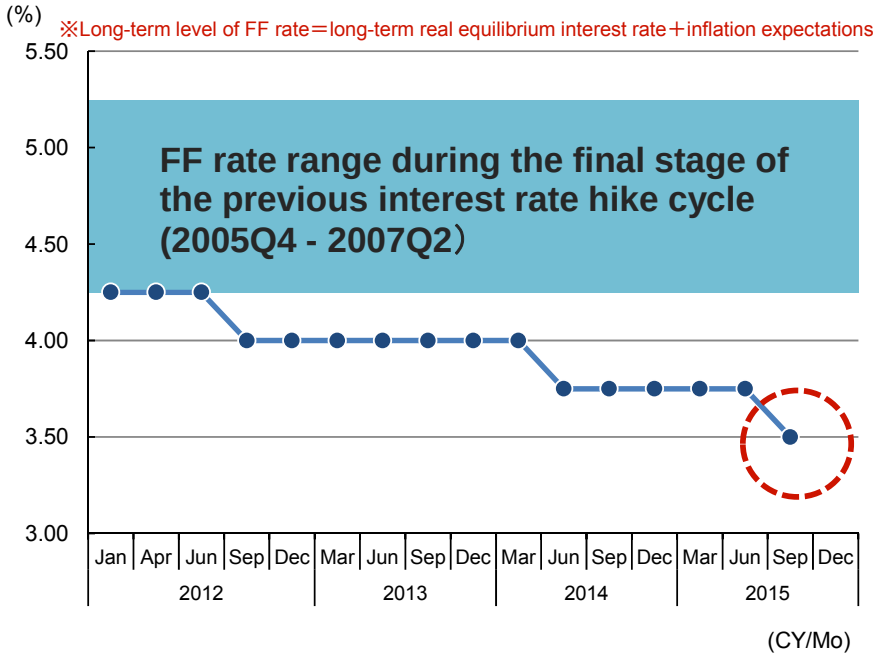
- According to John Williams, president of the Federal Reserve Bank of San Francisco, the short-term real equilibrium interest rate is around zero. The FRB also assumes the fall of federal funds rate over the long term.
  - The short-term real equilibrium interest rate is currently zero. Assuming that inflation expectations are 2%, the neutral nominal interest rate would be 2%).
  - The projections of FOMC members on the long-term level of the federal funds rate (the neutral nominal interest rate over the long term) fell from 4.25% (January 2012) to 3.5% (September 2015).

[Real equilibrium interest rate (neutral real interest rate over the short term)]



Note: Assuming that inflation expectations are 2%, the level of the real equilibrium interest rate plus 2% is equal to the level of neutral policy interest rate over the short term.
Source: Made by MHRI based upon Federal Reserve Bank of San Francisco.

[FOMC members' economic projections on the long-term level of the federal funds (FF) rate]

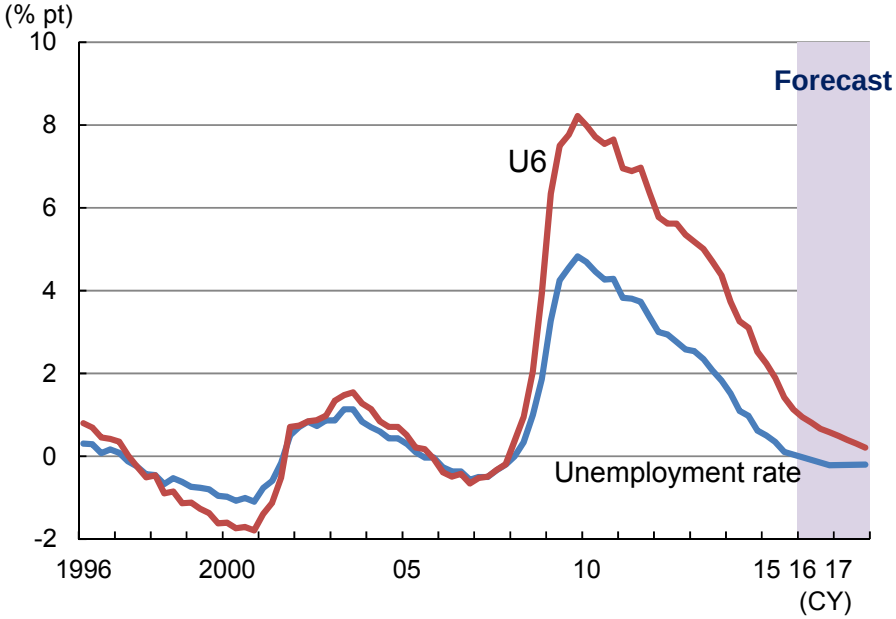


Note: Central tendency of long-run FF rate projections
Source: Made by MHRI based upon FRB.

The FRB will avert excessive tightening risks by an "early" commencement and "slow" pace of interest rate hikes

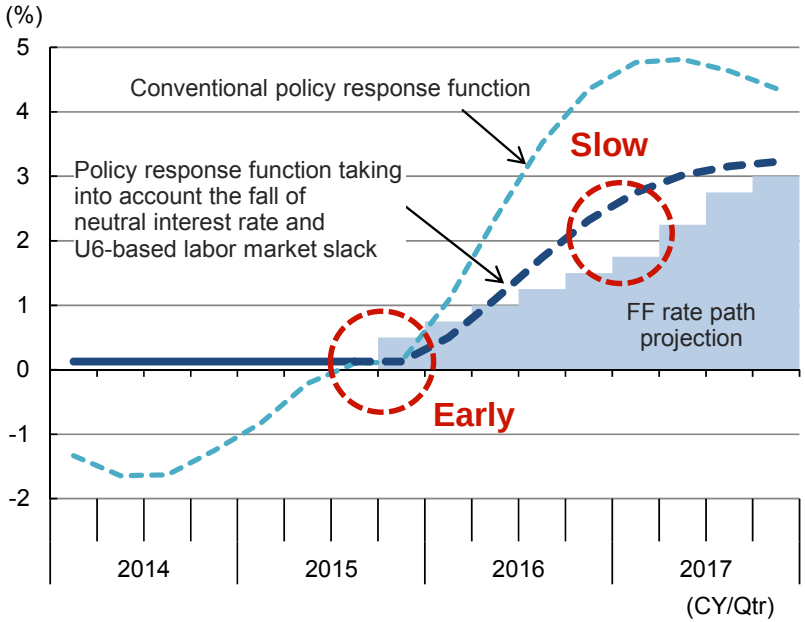
- The FRB will likely start its interest rate hike "early" (December 2015) at a "slow" pace. The upper range of the federal funds rate should reach 1.50% at the end of 2016.
  - Based upon the fall of the neutral interest rate and U6-based labor market slack, the timing of interest rate hike would be 20161Q and the federal funds rate would rise to over 2% by the end of 2016.
  - However, even in this case, note that the pace of interest rate hikes will be fast, and invite the risks of excessive tightening such as the surge of long-term interest rates.
  - The FRB is expected to take a more cautious stance and start to raise interest rates in December 2015 and continue to do so at a slow pace in four rate hikes in 2016.

[Labor market slack]



Note "U6" is the broadest measure of unemployment including part-time workers who want to work full-time and discouraged workers. "Labor market slack" is the gap between the unemployment rate and the natural rate of unemployment.
Source: Made by MHRI based upon FRB, CBO, US Department of Labor.

[Projections on the federal funds (FF) rate]

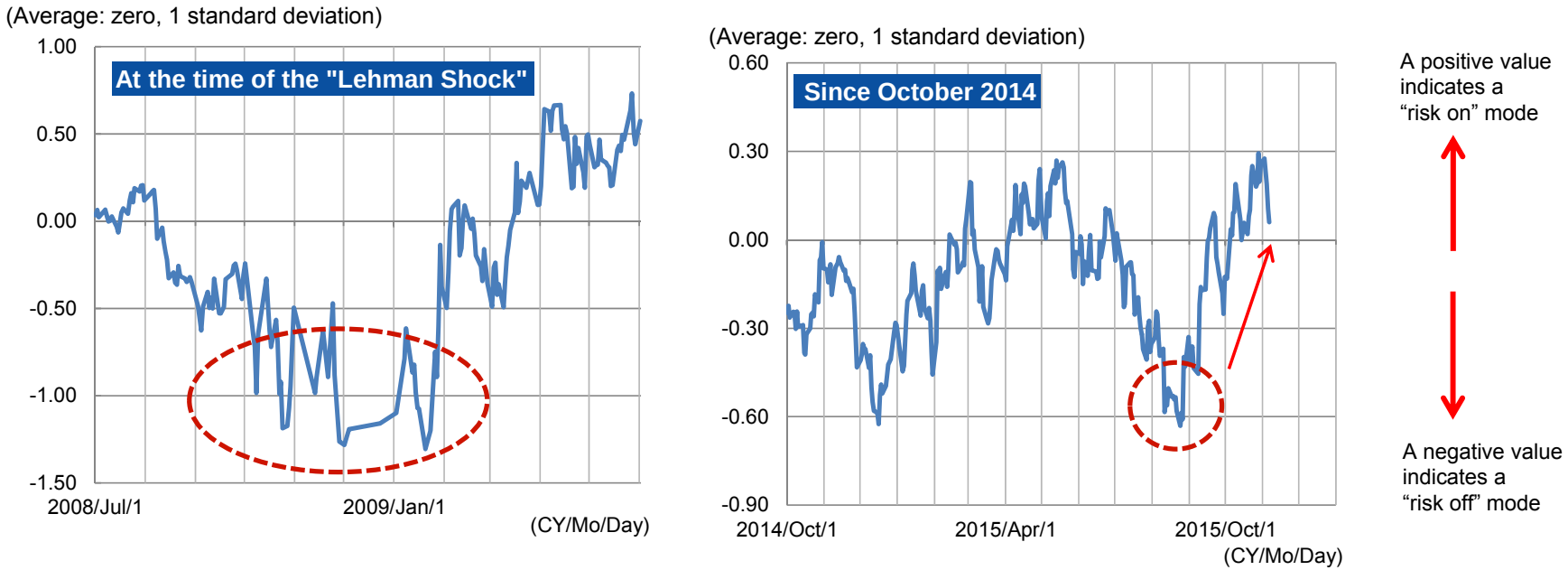


Source: Made by MHRI .

Point (1): EM and commodity producing country trends and FRB monetary policy – destabilization of financial markets will put interest rate hikes on hold

- In the event of a destabilization of global financial markets, this would serve as a reason to delay the interest rate hike depending upon the timing and magnitude of the market destabilization.
  - In terms of magnitude, the "shock" in the summer of 2015 was around half of the shock stemming from the collapse Lehman Brothers (the "Lehman Shock"). This (the summer shock) serves as factor behind the decision to forego an interest rate hike at the meeting of the FOMC in September 2015.
  - Even so, the shock is unlikely to persist. Investors are turning more tolerant to risks.

[Risk tolerance in the global financial markets]



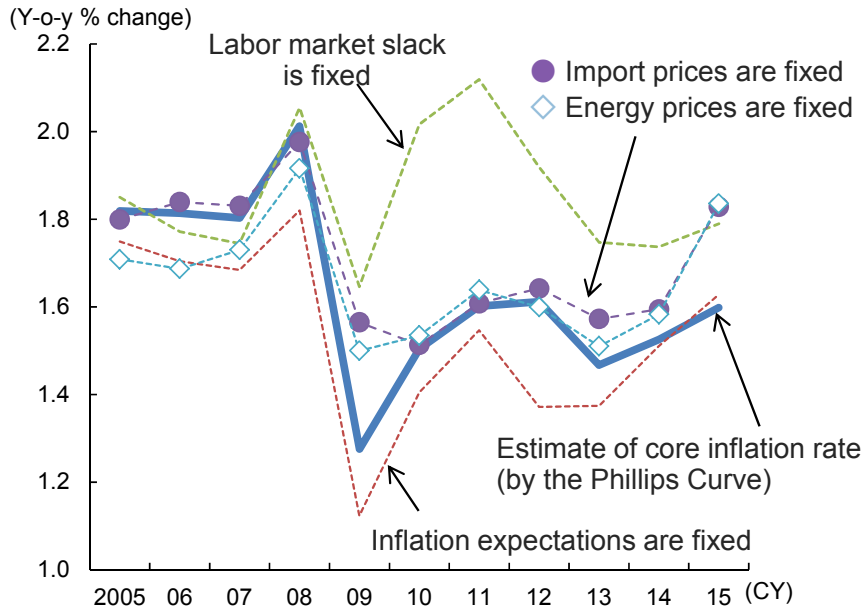
Note: Extracted by the structural VAR model from the daily fluctuation the US long-term interest rate (10-yr Treasury bond yield), global stock price index (MSCI All Country Index (ex US)), exchange rate of EM currencies to the US dollar (FRB nominal effective rate). The graphs above plot 20 samples, backward moving averages. The shock in the graphs are shocks other than systemic risks since the gap between AA-rated CP rates (financial, 3-months) and short-term US bond yields (3-month) is calculated as an exogenous systemic risk.

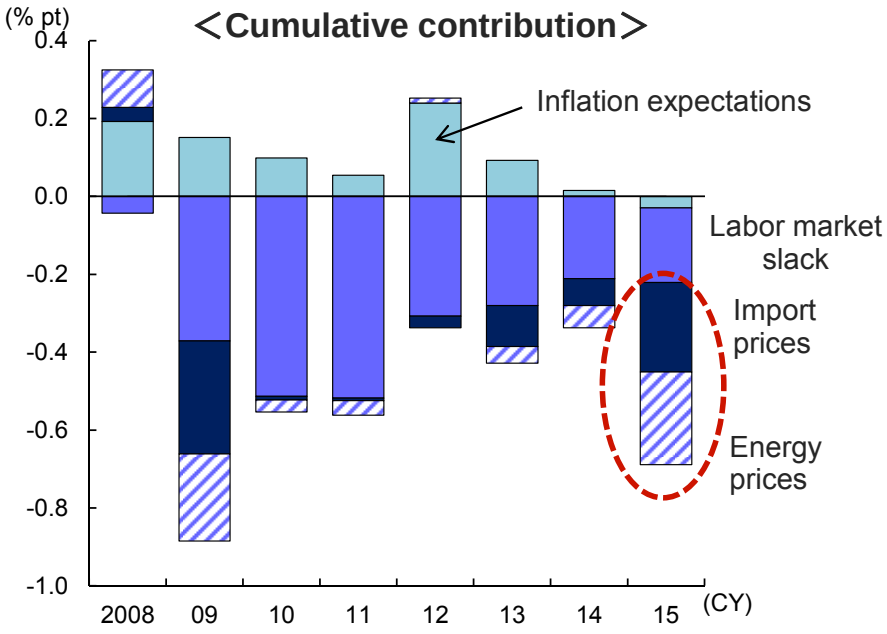
Source: Made by MHRI.

Point (2): downside risks of inflation due to a strong dollar and fall of commodity markets will also serve as factors to delay the timing to start interest rate hikes

- The timing of the FRB's move may be postponed if the EM and commodity-producing economies slow further because of downward pressures upon the core inflation rate due to a stronger dollar and fall of commodity (energy) prices.
  - According to our Phillips Curve analysis, the foreign exchange rate and energy prices would have a significant impact upon core inflation.

[Core inflation – variable factors and their impacts]





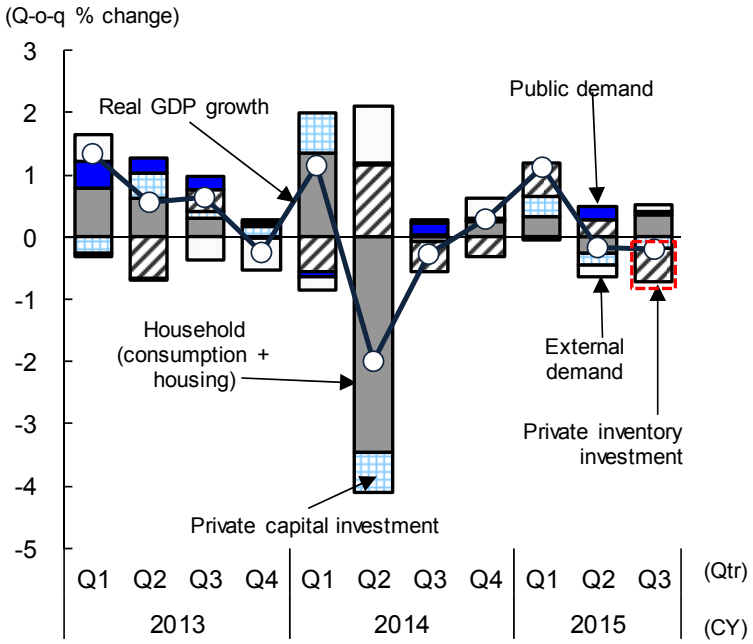
Note: A comparison of inflation rate estimates and the inflation rate in the event the fluctuation factors are fixed as of 1994Q4. The estimation model includes a lag operator for the inflation rate, and the contributions of each of the fluctuation factors includes those through the lag operator. The readings for 2015 are values up to Q3 converted into annualized rates.

Source: Made by MHRI.

4. Japan's economic stall: two consecutive quarters of negative growth. However, an economic downturn should be avoided

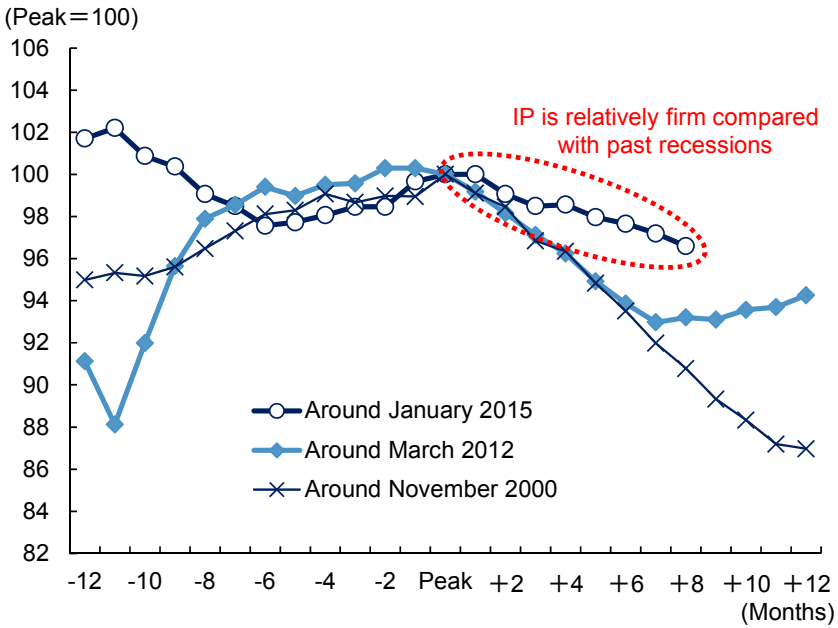
- Japan's real GDP contracted for the second quarter in a row in the Jul-Sep quarter of 2015. In addition to a significant drag by inventory investment, businesses turned cautious regarding capital investment. Even though personal consumption and exports picked up, they fell short of recovering the fall in the Apr-Jun quarter.
- Industrial production (IP) is firm compared with movements in past recessions.
  - Trends in shipments reveal that shipments for exports recorded a fall comparable to the mild recession in 2012. On the other hand, shipments for the domestic market are improving.

[Real GDP growth (contribution by components of demand)]



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

[Industrial production (compared with past recessions)]



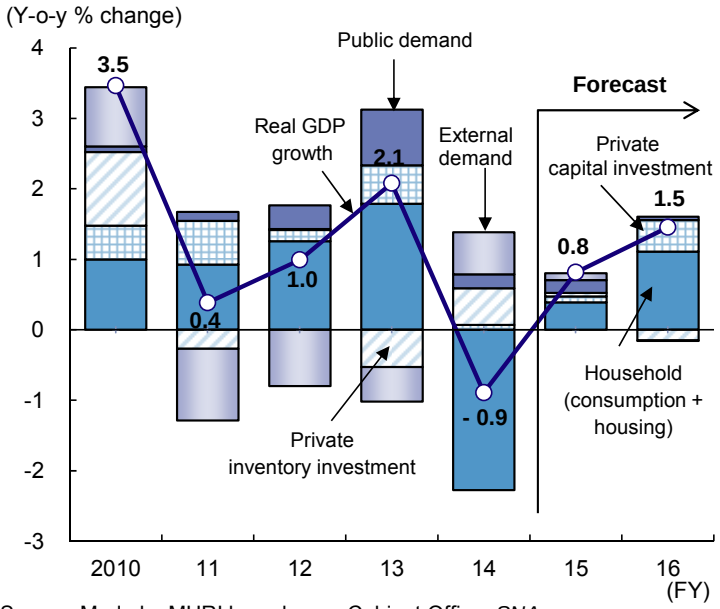
Notes: 1. 3-mo central moving average.
2. 2012 was a year in which Japan dipped into a recession due to a backlash to the eco-car subsidies and overseas economic slowdown stemming from the eurozone debt crisis. In 2000-2001, Japan fell into a recession after the collapse of the IT bubble.

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

Despite lingering uncertainties, the Japanese economy should return to a gradual recovery path

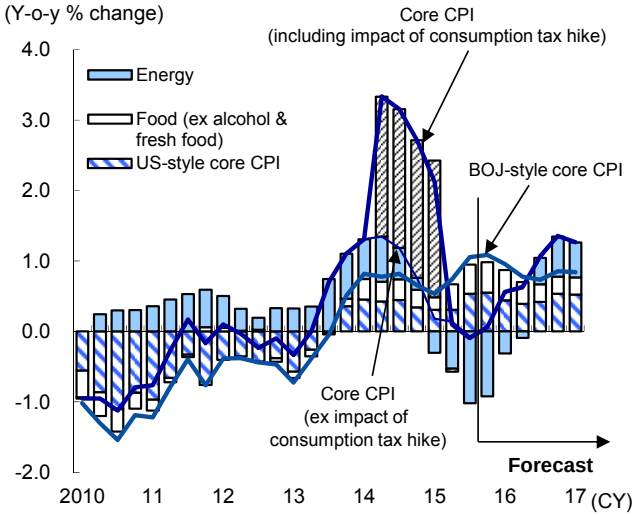
- FY2015 growth will turn out to be tepid despite tailwinds such as the weak yen and crude oil price falls. Exports stalled due to the slowdown of overseas economies and businesses turned cautious about capital investment. The recovery of personal consumption was also sluggish due to bad weather conditions and stock adjustment of durable goods.
  - Although a mild recovery is expected going forward, there are uncertainties regarding (1) the impact of the EM slowdown, (2) lingering inventory adjustment pressures, (3) the wait-and-see stance regarding capital investment, (4) the tepid recovery of personal consumption, and (5) *shunto* (spring labor-management negotiations) wage hikes.
- In FY2016, we expect the rise of investment to renew existing facilities on the back of strong corporate earnings. In the second half of the fiscal year, a last-minute rush of demand prior to the consumption tax hike should contribute to push up growth.
- Core inflation will hover around zero toward the end of 2015. From then onward, energy prices will turn take an upturn, leading to the rise of underlying trend in inflation and push up the core inflation rate to the lower half of the 1%-level.

[Real GDP]



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

[CPI (forecast)]



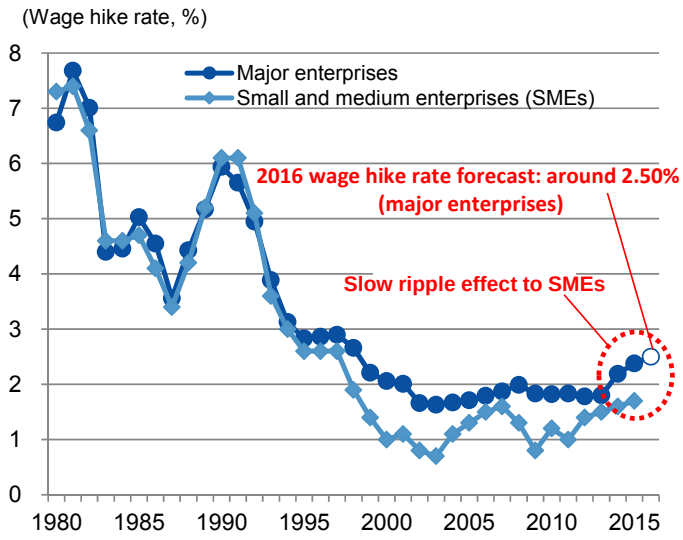
Note: The breakdown excludes the impact of the consumption tax hike. The US-style core CPI excludes energy and food (ex alcohol). The BOJ-style core excludes fresh food and energy.

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

Spring wage hike rate will surpass 2015. However, it will not be sufficient to achieve the inflation target

- Due in part to government requests for wage hikes, the spring wage hike rate in 2016 will surpass the previous year and reach 2.50%.
  - For the 2016 wage hike, the stagnant rise of the inflation rate and GDP growth rate in 2015 are negative factors. On the other hand, strong corporate earnings and rising sentiment on labor shortage are positive factors. The wage hike rate should rise in view of government requests for wage hikes amid the maintenance of mild inflation expectations in the corporate sector.
- Even so, in view of the long-term relationship between the wage hike rate and inflation, the wage hike rate in 2016 will not reach the level consistent with an inflation target of 2%.
  - For the stable achievement of the price target (2% inflation rate), a spring wage hike rate of 4% to 5% (including annual wage increase) would be necessary.

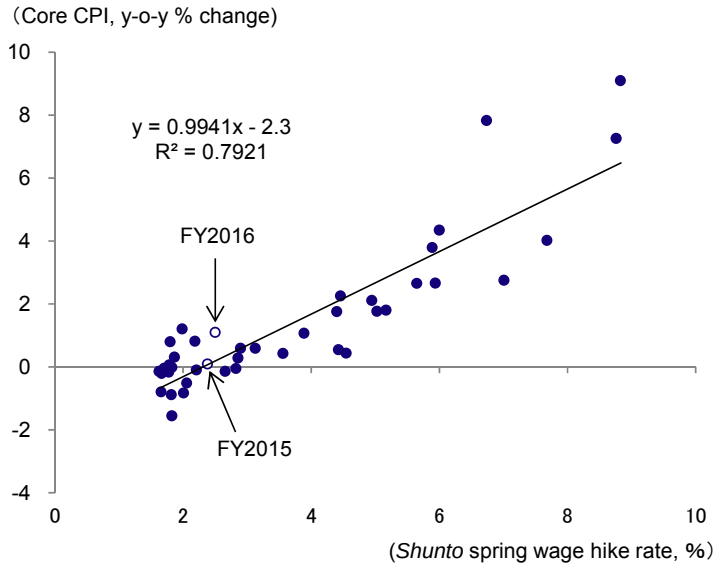
[Spring wage hike rate (major enterprises and SMEs)]



Note: SMEs are enterprises with 100 to 299 employees in the *Survey on Wage Increase.* However, since data on 2015 are not yet disclosed, the graph is extended on the basis of surveys by RENGO and Keidanren.

Source: Ministry of Health, Labour and Welfare, *Minkan shuyo kigyo shunki chin-age yokyu daketsu jokyo (Private key enterprises Spring wage demands-conclusion situation), Survey on Wage Increase.*

[Spring spring wage hike rate and core CPI]



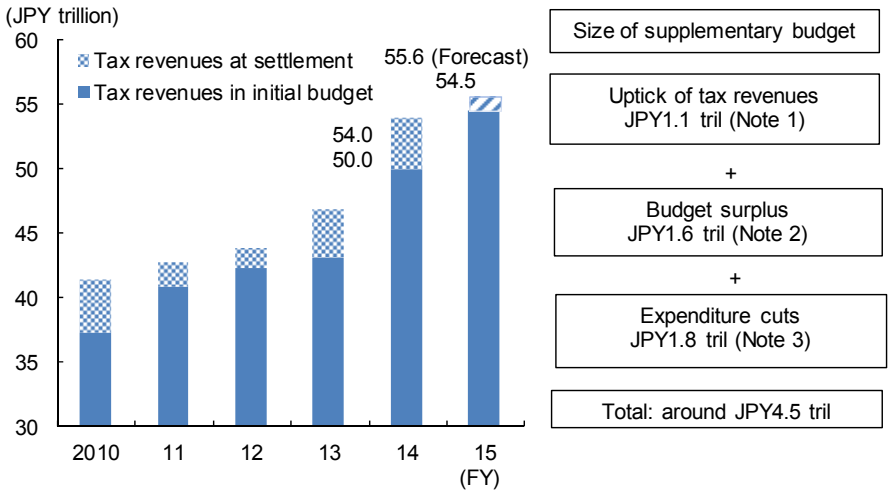
Note: The core CPI (y-o-y % change) for FY2015 and FY2016 and the *shunto* spring wage hike rate for FY2016 are forecasts by MHRI.

Source: Made by MHRI based upon Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare.

FY2015 supplementary budget – it will be possible to secure fiscal resources around JPY4.5 trillion without the issuance of more government bonds

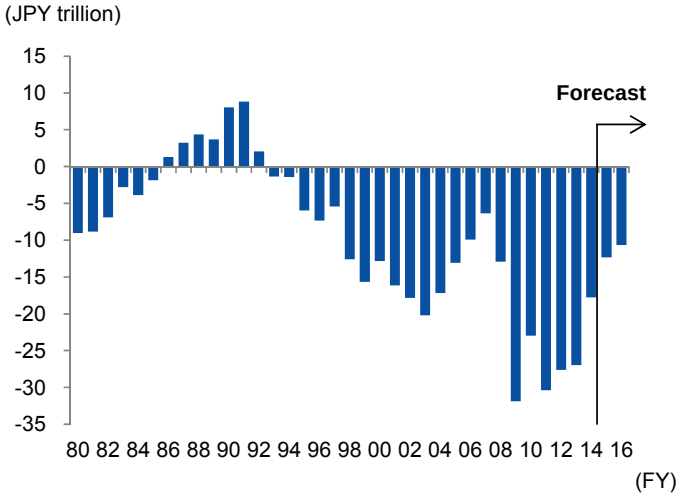
- Given the uptick of tax revenues in FY2015, the FY2014 budget surplus, and the reduction of expenditures in the FY2015 initial budget, it will be possible to secure fiscal resources around JPY4.5 trillion without the issuance of more government bonds (*the FY2015 supplementary budget is not included in this forecast).
  - The supplementary budget is expected to include measures for low income earners, measures for the agriculture/forestry/fisheries sector in connection with the TPP Agreement, and regional revitalization.
  - Assuming a supplementary budget around JPY4.5 trillion, it would push up FY2016 real GDP by approximately +0.3% (+0.6% on a cumulative basis from FY2016 onward).
- The primary balance will shrink along with the rise of tax revenues, reaching the lowest level since FY2007.

[Tax revenues in the initial budget and budget settlement]



Notes: 1. The uptick of tax revenues in FY2015 is based upon MHRI's forecast
2. The amount when allocating the total amount to the supplementary budget by enactment of a special law to exempt application of Article 6 of the Finance Act (which) allocates more than ½ of net surplus to resources for government bond redemption).
3. Assumed to be around the same as the FY2014 supplementary budget.
Sources: Made by MHRI based upon releases by the Ministry of Finance.

[Trends in the primary balance (general account)]



Note: The primary balance for FY2015 and FY2016 are forecasts by MHRI.
Source: Made by MHRI based upon releases by the Ministry of Finance.

The BOJ will likely deliver a further bout of monetary easing in the first half of 2016 while keeping a close eye upon the underlying trend in inflation

- The Bank of Japan (BOJ) left monetary policy unchanged at the monetary policy meeting (MPM) on October 30, 2015. In the *Outlook for Economic Activity and Prices* (the *Outlook Report*), the BOJ revised down its outlook on economic growth and prices in FY2015 and FY2016, and postponed the achievement of the inflation target to the second half of FY2016.
- The BOJ will likely deliver a further bout of monetary easing in the first half of FY2016 while keeping a close eye upon the underlying trend in inflation.
  - The rise of the CPI (ex food and energy) should gradually slow down along with the fading impact of the weak yen. The BOJ will likely deliver a further bout of monetary easing in view of the spring labor-management wage negotiations.
  - In the event the yen loses further ground to the dollar due to the US interest rate hike, the BOJ may take a wait-and-see stance and decide upon additional monetary easing measures in view of the consumption tax hike in the second half of the fiscal year.

[BOJ *Outlook for Economic Activity and Prices* (the *Outlook Report*) (October 2014)]

(Y-o-y % change)

	Real GDP	CPI (all items less fresh food)	Excluding the effects of the consumption tax hikes
FY2015	+0.8 to +1.4 (+1.2)	+0.0 to +0.4 (+0.1)	
Forecasts made in July	+1.5 to +1.9 (+1.7)	+0.3 to +1.0 (+0.7)	
FY2016	+1.2 to +1.6 (+1.4)	+0.8 to +1.5 (+1.4)	
Forecasts made in July	+1.5 to +1.7 (+1.5)	+1.2 to+2.1 (+1.9)	
FY2017	+0.1 to +0.5 (+0.3)	+2.5 to +3.4 (+3.1)	+1.2 to +2.1 (+1.8)
Forecasts made in July	+0.1 to +0.5 (+0.2)	+2.7 to +3.4 (+3.1)	+1.4 to +2.1 (+1.8)

Source: Made by MHRI based upon Bank of Japan.

[Outlook on prices by BOJ MPM members (BOJ *Outlook Report*)]

		FY2015	FY2016	FY2017
Real GDP	Significant upside risks	0	1	0
	Balanced upside and downside risks	5	6	4
	Significant downside risks	4	2	5
CPI	Significant upside risks	0	1	0
	Balanced upside and downside risks	6	4	4
	Significant downside risks	3	4	5

Note: The numbers in the chart refer to the number of policy members who believe that the probabilities are high.
Source: Made by MHRI based upon Bank of Japan.

Why is Japan's economic recovery tepid? Four "Whys" - and MHRI's perspectives

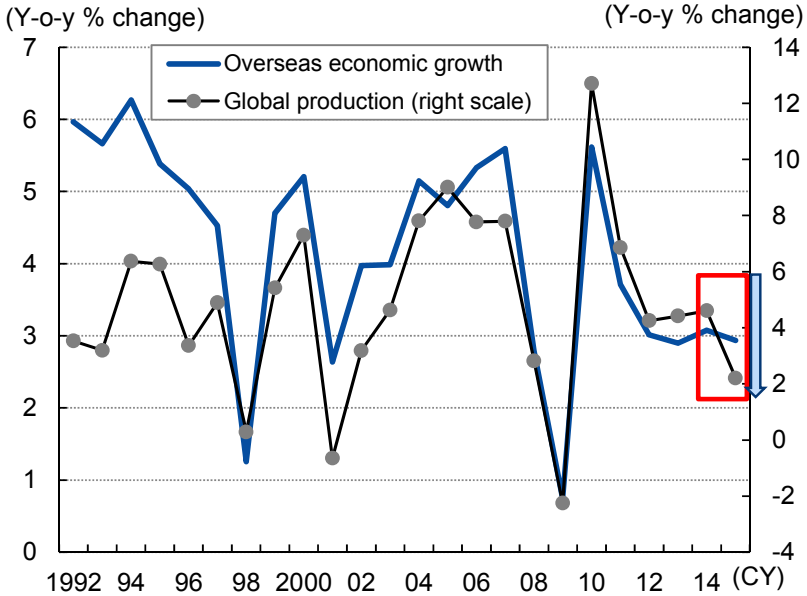
[The four "whys" of the Japanese economy]

Four "Whys"	Perspectives
1. Why is there such a serious damage upon Japan's exports?	・Japan's exports are structurally vulnerable to China's economic slowdown ・Much of the negative spillover from China's economic slowdown to Japan is indirect
2. Why isn't capital investment growing despite the strong corporate earnings?	・The cash increase is allocated to investments such as stocks which are not reflected in GDP ・In FY2016, we expect to see a renewed surge of investment for the renewal of equipment on the back of strong corporate earnings
3. Why isn't personal consumption recovering despite the improvement of real labor compensation?	・Durable goods have entered a stock adjustment process ・Note that there is also a bias in the sample items in the *Family Income and Expenditure Survey*
4. Why aren't the "Triple Merits" exerting its full effect in pushing up GDP	・The trade balance and corporate earnings have improved greatly. Inbound tourism spending by foreign visitors has also surged ・On the other hand, capital investment has not increased sufficiently despite the improvement of corporate earnings (more than JPY10 trillion)

Perspective (1) External Demand: Japan's exports are structurally vulnerable to China's economic slowdown

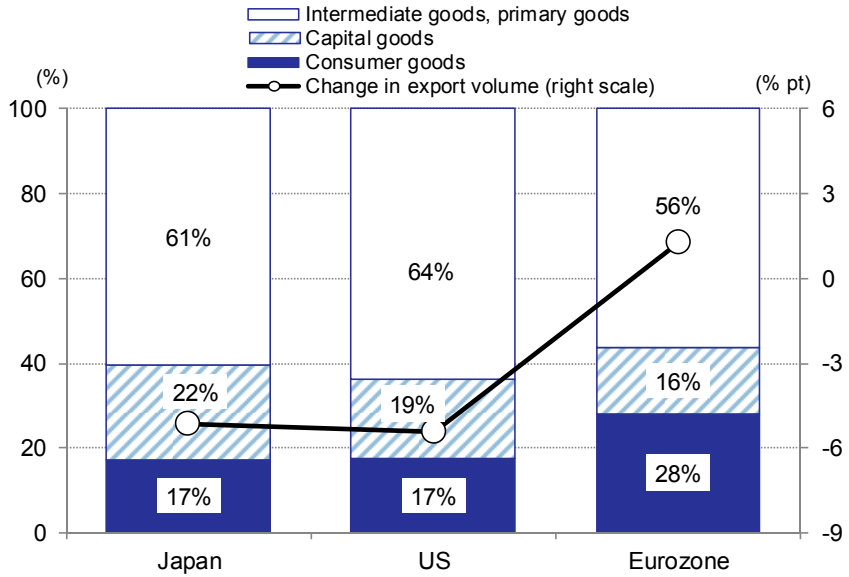
- Exports are continuing to slump. The global slowdown of production and investment (mainly in Asia) is serving as a drag upon exports.
  - The worldwide slowdown of production in 2015 is greater than the breadth of the decline of overseas economic growth. Although the services sector is gradually expanding worldwide, it appears that the manufacturing sector has been hit by the slowdown of the Chinese and commodity-producing economies.
  - The high ratio of exports in intermediate and capital goods makes Japan vulnerable to the worldwide slowdown of production and investment.

[GDP growth rate and production by Japan's export destinations]



Notes 1. "Overseas economic growth" is synthesized by the growth rates of the US, EU, NIEs, and ASEAN5, weighted by Japan's trade (2010).
2. "Global production" " is synthesized by the growth rates of the US, eurozone, and the emerging economies of Asia, weighted by Japan's trade (2010).
3. The production index for 2015 is the average during Jan-Aug 2015.
Source: Made by MHRI based upon IMF, Netherlands Bureau for Economic Policy Analysis, *CPB*, Ministry of Finance.

[Components of exports and the current rise of export volume (Japan, the US and Eurozone)]



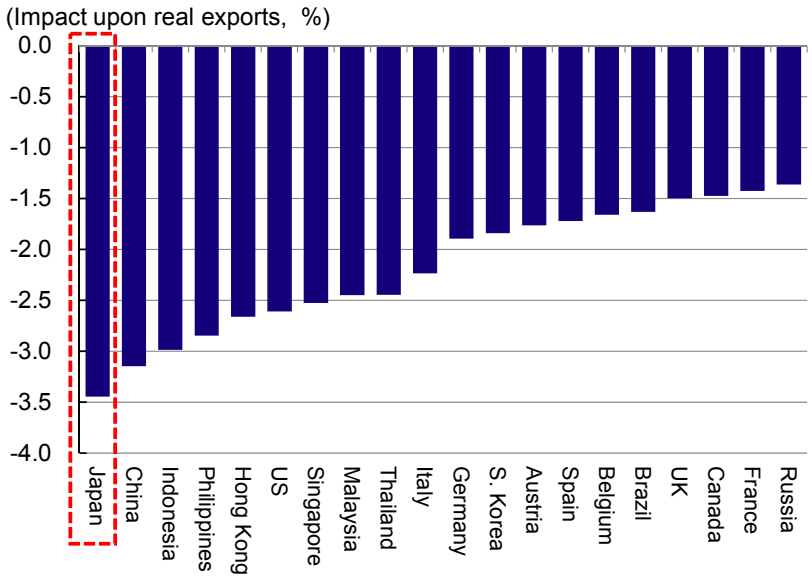
Notes 1. The percentages of export items are based upon actual results in 2013.
2. The change in export volume is the difference between the export volume in December 2014 and August 2015.
Source: Made by MHRI based upon RIETI, *RIETI-TID 2013*, Netherlands Bureau for Economic Policy Analysis, *CPB*, Ministry of Finance.

Perspective (1) External Demand: much of the negative spillover from China's economic slowdown to Japan is indirect

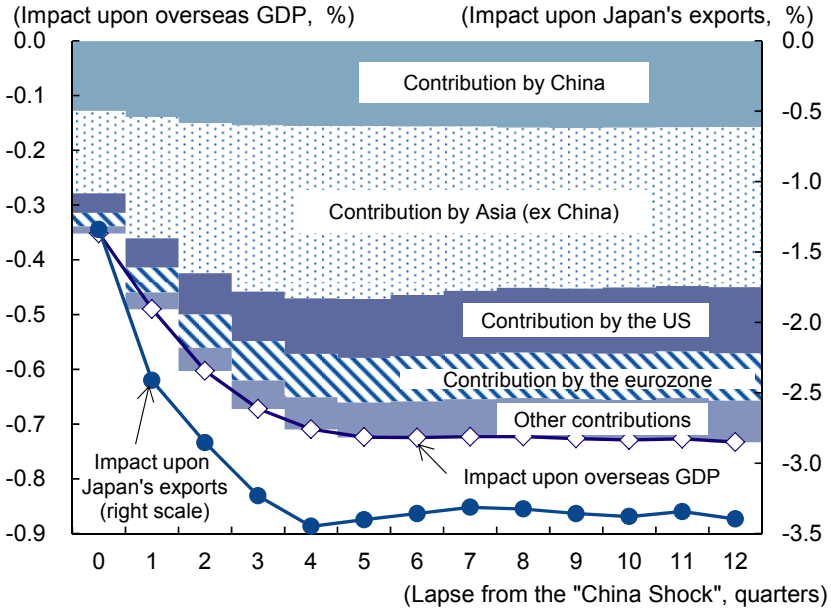
- According to simulations using the Global VAR model, much of the negative impact from China's economic slowdown upon Japan is indirect.
  - Japan's exports are subject to negative pressures due to the economic downturn of Asia (ex China), the US and Europe in addition to China's economic slowdown.

[The spillover from China's economic slowdown (simulations using the Global VAR)]

< The spillover to real exports of major countries (one year on) >



< Impact upon overseas GDP and Japan's exports (cumulative) >



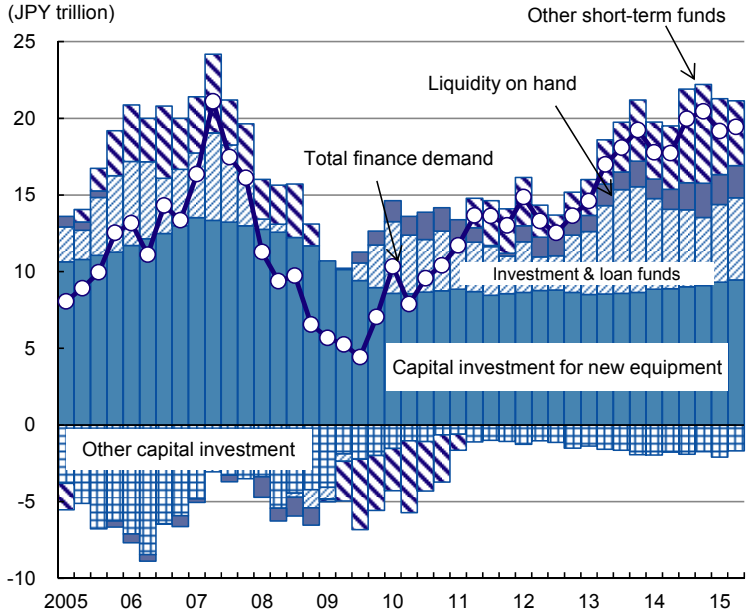
Notes: 1. The size of the "China Shock" assumes that China's GDP is subject to a one-standard-deviation negative impact (China's GDP falls by approximately 0.7% one year on).
2. The impact upon overseas GDP is the impact upon total GDP of the countries weighted by the value of exports from Japan.

Source: Made by MHRI based upon Smith, L.V. and A. Galesi (2014),"GVAR Toolbox 2.0"(https://sites.google.com/site/gvarmodelling/gvar-toolbox), L. Gauvin and C. Rebillard (2015) "Towards Recoupling? Assessing the Global Impact of a Chinese Hard Landing through Trade and Commodity Price Channels", and others.

Perspective (2) Capital Investment: possible increase of investment which are not accounted for in GDP data

- The increase of cash from the improvement of corporate earnings is continuing to be channeled to investment & loan funds (particularly stock investment).
  - Investment & loan funds are increasing along with overseas investment and M&As. However, as a general rule, investment & loan funds are not accounted for in GDP data.

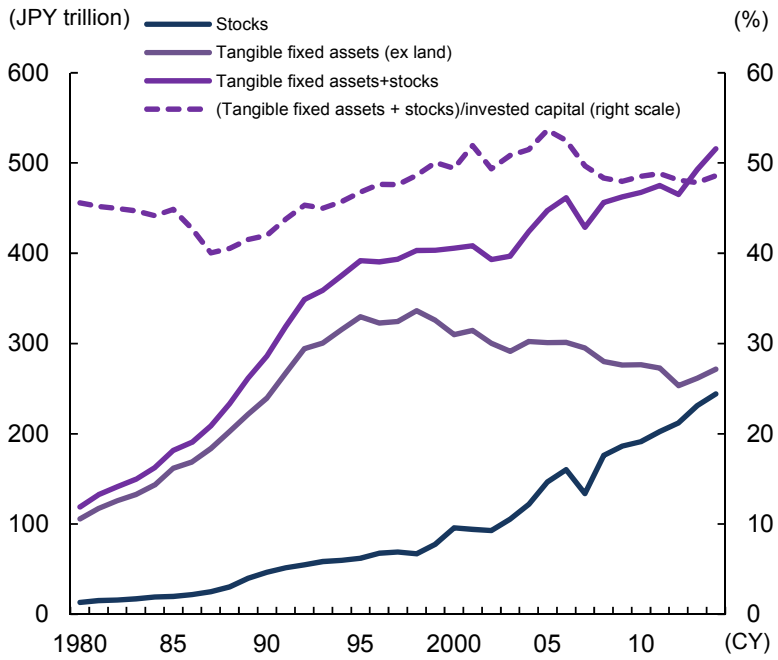
[Trends in corporate finance demand (backward 4-qtr moving average)]



Notes: 1. Backward 4-qtr moving average. All industries (ex finance and insurance)
2. "Other corporate investment" refers to total finance demand for equipment (change of tangible fixed assets + depreciation cost) minus capital investment for new equipment (change in land +transfer other than land – transfer for sale and/or destruction of assets other than land. For example, purchases of second-hand items would be a plus while sale would be a minus). "Investment and loan funds" refer to intangible fixed assets funds and investment, and other asset funds (stocks, loans, etc.), deferred assets. Other short-term finance include inventory investment and business-to- business credit.

Source: Made by MHRI based upon Ministry of Finance, *Financial Statements Statistics of Corporations by Industry.*

[Corporate asset-holdings (tangible assets, stocks)]



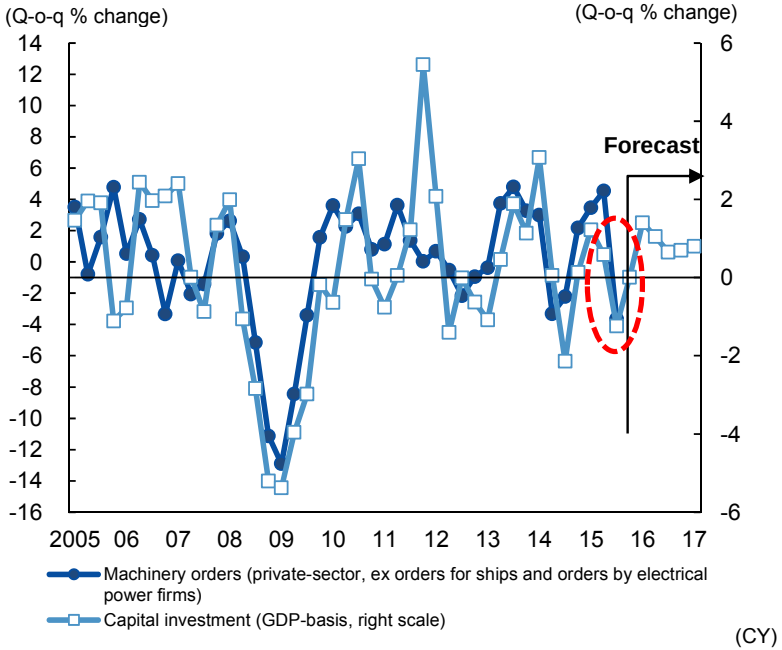
Notes: 1. All industries (ex finance and insurance)
2. "Stocks" refer to stocks which are accounted for as fixed assets.
3. "Invested capital" refers to total of net assets, short-term borrowings, long-term borrowings.

Source: Made by MHRI based upon Ministry of Finance, *Financial Statements Statistics of Corporations by Industry.*

Perspective (2) Capital Investment: despite a wait-and-see stance, capital investment should gradually recover backed by strong earnings

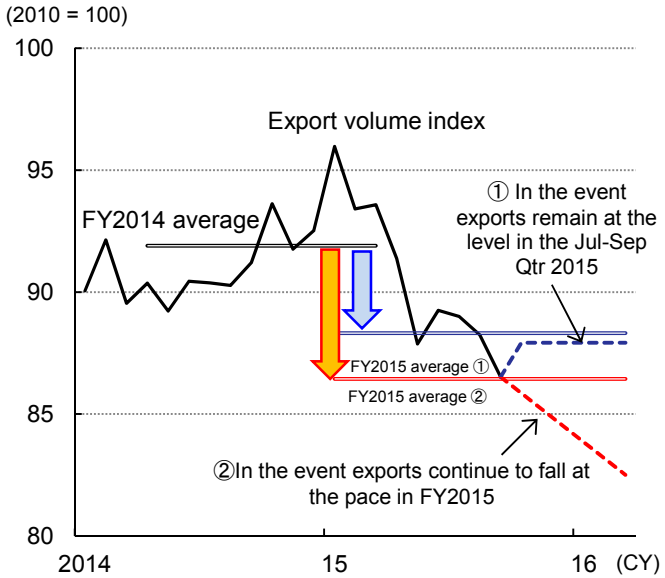
- Businesses are currently taking a wait-and-see stance regarding capital investment. Even so, capital investment should gradually recover on the back of strong corporate earnings.
  - As shown by the weakness of machinery orders, businesses appear to be taking a wait-and-see stance on capital investment due to reasons such as the slowdown of the overseas economies.
  - However, in view of the strong growth of corporate earnings, we expect the rise of investment to renew existing equipment.

[Orders for machinery and private capital investment]



Notes: 1. Both machinery orders and capital investment re quarter-on-quarter changes of backward 2-qtr moving averages.
2. Capital investment from the Oct-Dec quarter of 2015 are forecasts by MHRI.
Source: Made by MHRI based upon Cabinet Office, *Orders Received for Machinery, Quarterly Estimates of GDP.*

[Impact of a prolonged export slump upon ordinary profits (trial calculation)]



Export volume index (change)	Impact upon ordinary profits
Case ①: -3.9%	-4 trillion yen
Case ②: -5.9%	-6 trillion yen

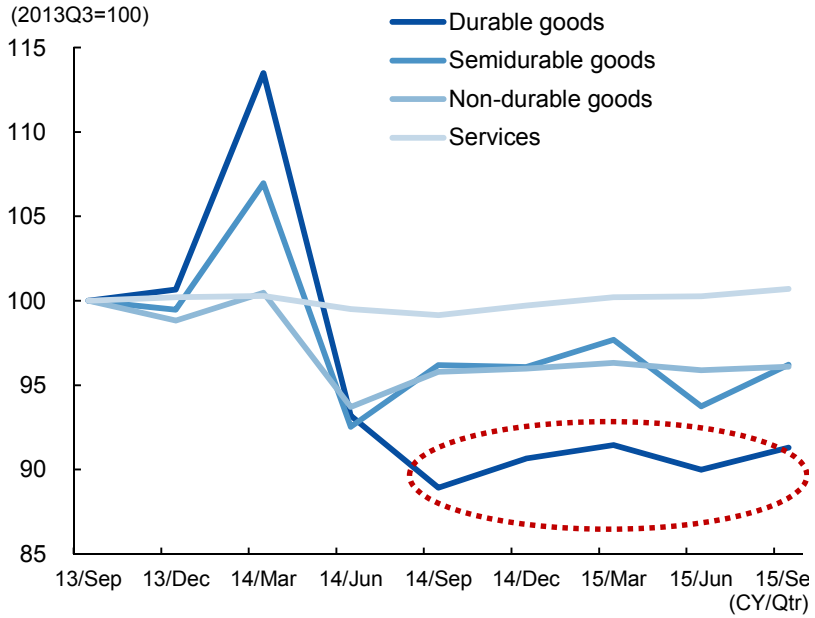
(Reference) FY2014 ordinary profits	66 trillion yen

Notes: 1. The export volume index is adjusted for seasonal factors by MHRI.
2. Ordinary profits on an all industries (ex finance & insurance) and quarterly basis.
3. The impact of the change of the export volume index upon ordinary profits is based upon MHRI's macromodel.
Source: Made by MHRI based upon Ministry of Finance, *Trade Statistics, Financial Statements Statistics of Corporations by Industry.*

Perspective (3) Personal consumption: the stock adjustment of durable goods may be serving as a drag upon personal consumption

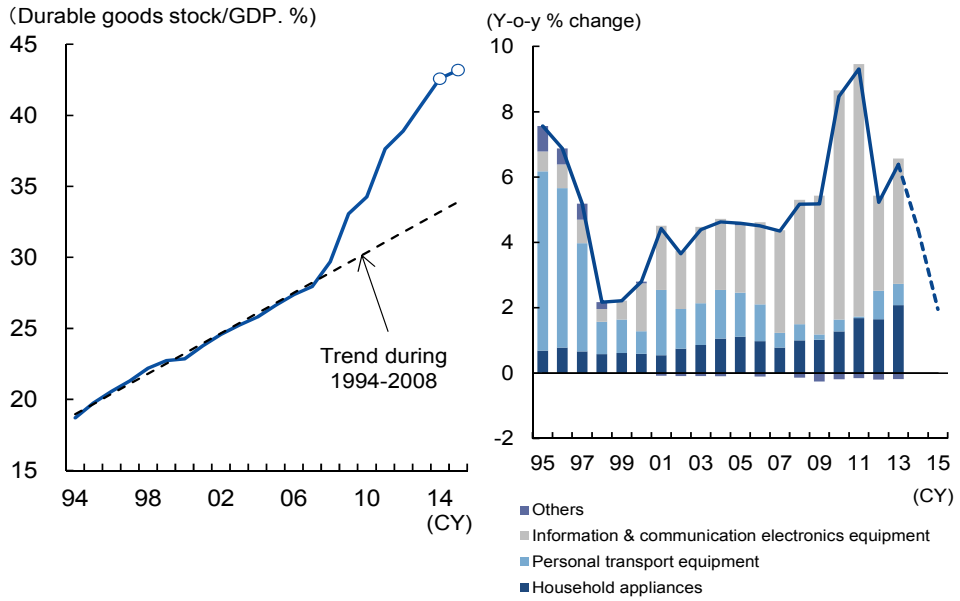
- Despite the growth of labor income, personal consumption growth has been weak since the consumption tax hike. In particular, note the significant weakness of durable goods consumption.
- The odds are high that durable goods consumption is affected by accelerated demand due to policy measures to support such purchases.
  - Durable goods stock (real) grew sharply since 2009 mainly in information & communication electronics equipment. Currently, it is slightly over 40% of GDP.
  - Subsequent to the Lehman Shock, the government implemented a series of measures to support purchases of durable goods. Coupled with the last-minute rush of demand prior to the consumption tax hike last year, much of the demand for durable goods appears to have been accelerated over several years.

[Consumption in real terms]



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

[Trends in durable goods stock]



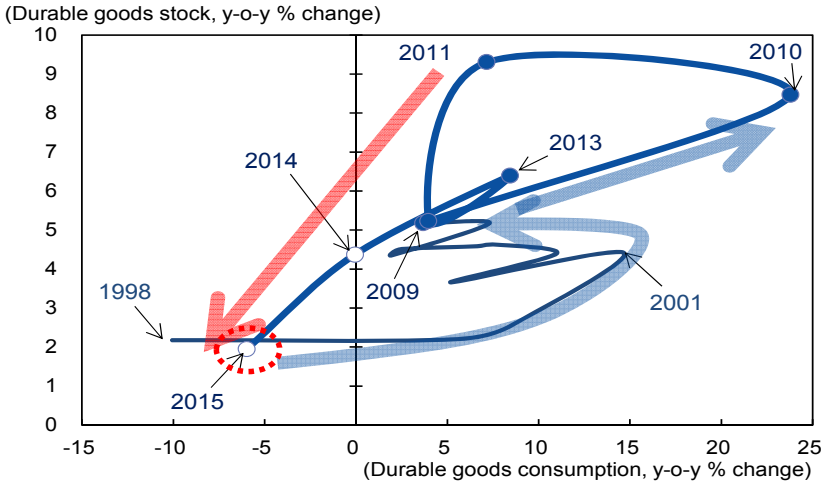
Notes: 1. In real terms.
2. The readings for 2014and 2015 are based upon the depletion rate extrapolated from the trend and actual durable goods expenditures (Jan-Sep s.a. for 2015).

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

Perspective (3) Personal consumption: personal consumption may appear weaker due to a sample bias in the *Family Income and Expenditure Survey*

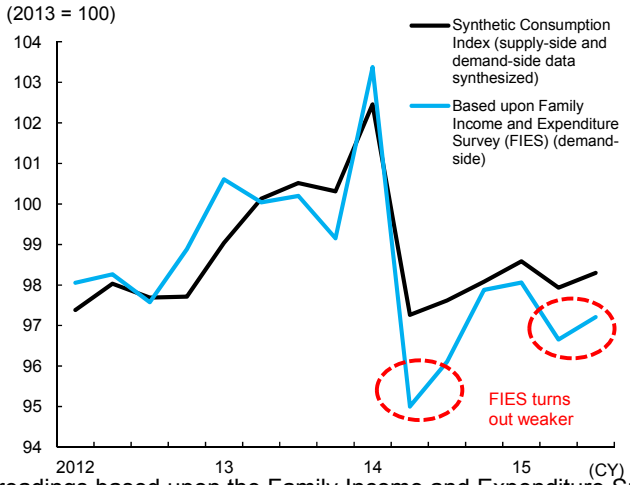
- The stock adjustment cycle also reveals an unnatural course since implementation of purchase support measures.
  - Up to around 2009, durable goods consumption followed the cycle since the mid-1990s. However, since 2010, note that durable goods consumption entered a recovery phase without going through an adjustment phase.
  - Currently, it appears that adjustment pressures are building. The odds are high that the stock adjustment will take more time than it would in the case there were no purchase support measures.
- Furthermore, GDP-based personal consumption may appear weaker due to a sample bias in the *Family Income and Expenditure Survey.*
  - The Council on Economic and Fiscal Policy has indicated a bias skewed toward certain brackets such as the elderly. The re-shuffling of one-sixth of the sample every month may also be a problem.
- The last-minute rush of demand prior to the consumption tax hike is expected to push up consumer spending around 2% at the beginning of 2017 (+0.5% for FY2016)

[Durable goods consumption and stock]



Note: The readings for 2014and 2015 are based upon the depletion rate extrapolated from the trend and actual durable goods expenditures (Jan-Sep s.a. for 2015).
Source: Made by MHRI based upon Cabinet Office, *SNA.*

[The Synthetic Consumption Index and real consumption based upon the Family Income and Expenditure Survey (FIES)]



Note: The readings based upon the Family Income and Expenditure Survey (FIES) is based upon the real expenditures index (ex housing, etc.) adjusted for the rise in number of households.
Source: Made by MHRI based upon Cabinet Office, *Synthetic Consumption Index,* Ministry of Internal Affairs and Communications, *Family Income and Expenditure Survey.*

Perspective (4) The "Triple Merits": the improvement of corporate earnings is not leading to the rise of capital investment

- Japan's trade balance and corporate earnings have improved greatly due to the "Triple Merits" ((1) weak yen and stock market rise accompanying monetary easing at the end of October 2014), (2) economic stimulus measures in the FY2014 supplementary budget, and (3) sharp fall of crude oil prices).
  - In comparison to the Apr-Jun quarter of 2014, the trade balance improved by approximately JPY7 trillion and current profits have increase by approximately JPY15 trillion.
- On the other hand, the Triple Merits have not worked sufficiently to boost exports, personal consumption and capital investment.
  - In particular, despite the improvement of corporate earnings (by more than JPY10 trillion), it has not led to a commensurate rise of capital investment.

[Impact of the "Triple Merits"]

		Prior to fall of yen and crude oil price (2014)		Current state (2015)		Breadth of change: Actual	Breadth of change: Forecast at the beginning of the year	Estimated value of the Triple Merits
Indicators boosted by the Triple Merits								
Primarily the fall of the yen	Inbound tourism consumption	approx. 1.4 tril yen	(Jan-Sep)	approx. 2.3 tril yen	(Jan-Sep)	+0.9 tril yen	-	-
Primarily the fall of crude oil price	**Trade balance**	-12 tril yen	(Apr-Jun Q)	-4 tril yen	(Jul-Sep Q)	**+7.4 tril yen**	**+9.0 tril**	**+7 tril yen**
	Energy price (CPI)	125.1		113.7		-9.2%	-9.7%	-
Both	Fixed investment projections (Large enterprises, y-o-y ch)	+7.4%	(Jun survey)	+10.9%	(Sep survey)	-		-
	Current profits	62.0 tril yen	(Apr-Jun Q)	77.0 tril yen	(Apr-Jun Q)	**+15 tril yen**	**+12 tril yen**	**+11 tril yen**
	Real GDI	502.2 tril yen		512.5 tril yen	(Jul-Sep Q)	+10.3 tril yen	+16.4 tril yen	-
Indicators which are not sufficiently boosted by the Triple Merits								
Primarily the fall of the yen	Real exports	88.9 tril yen		93.1 tril yen		+4.1 tril yen	+7.0 tril yen	+1.3 tril yen
Primarily the fall of crude oil price	Personal consumption	305.9 tril yen	(Apr-Jun Q)	308.9 tril yen	(Jul-Sep Q)	+3.0 tril yen	+6.9 tril yen	+0.7 tril yen
Both	**Fixed investment (real)**	71.2 tril yen		71.3 tril yen		**+0.1 tril yen**	**+2.3 tril yen**	**+3.2 tril yen**
	Real GDP	524.5 tril yen		528.7 tril yen		+0.8 tril yen	+11.3 tril yen	**+4.9 tril yen**

Refer to Perspectives (1), (3)

Refer to Perspective (2)

Notes: 1. As a general rule, the indicators are adjusted for seasonal factors and expressed as annual rates (except for energy prices and fixed investment projections).
2. The forecast at the beginning of the year is as of February 17, 2015.
3. The estimated value of the Triple Merits refers to the impact of the weaker yen and rise of stock prices calculates the impact of the change of the foreign exchange rate and stock prices (approximately 10% weakening of the yen, approximately 10% rise of stock prices, and 40% fall of crude oil prices) based upon the MHRI Macromodel.

Sources: Made by MHRI based upon various sources.

(Reference) Key political events

	2015		2016		2017	
US			Nov	US presidential election		
Europe	Dec	Spain general elections	by end of year	Irish general elections	Mar	Netherlands general electuons
					Apr^May	French general elections
					Jun	French legislative elections
					Sep	Germany general elections
Japan			Summer	Upper House election	Apr	Consumptin tax hike
Asia	end of year	Launch of ASEAN Economic Community (AEC)	Jan	Taiwan presidential & legislative elections	by end of year	Hong Kong election of Legislative Council President
	end of year	Launch of Asian Infrastructure Investment Bank (AIIB)	around Feb	Selection of president (Myanmar)	around Dec	South Korean presidential election
			around Mar	NPC (13th 5-Year Plan scheduled)	Autumn	19th National Congress of the Communist Party of China
			Apr	South Korean national assembly election		
			May	Philippines presidential & congressional elections		
			around Sep	Australia upper house & lower house elections		
			Autumn	Sixth Plenary Session of the CPC Central Committee (China)		
			by end of year	Vietnam Communist Party Congress		
			by end of year	India upper house election		
			by end of year	Hong Kong Lesgislative Council election		
Others	Nov	Argentina general elections (runoff)	Aug	Brazil summer Olympic Games		
	Dec	Venezuela legislative elections	Sep	Russia lower house election		

Source: Made by MHRI based upon media reports.