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# **FY2015, FY2016 Economic Outlook**

**- Despite uncertainties, the global economy will grow, driven mainly by the developed economies -**

May 21, 2015

Mizuho Research Institute

## Key points of our forecast

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- ❑ Although the pace of global economic recovery has slowed due to a temporary stagnation of the US economy, China's economic slowdown, and the fall of growth among commodity-exporting countries, the global economy is forecast to pick up gradually from the Apr-Jun quarter of 2015.
- ❑ Despite the spread of monetary easing around the world including the emerging countries and the easing of fiscal austerity measures, the global economy will lack strength in 2015 since the monetary and fiscal measures will have limited impact to lift the economy.
- ❑ While we expect a gradual recovery of crude oil prices and a mild uptick of the dollar's strength, the rise of market volatility must be watched closely. As regards the strong dollar, note that downside risks regarding the US economy and capital outflow from the emerging countries still linger.
- ❑ The Japanese economy will be boosted by the "Triple Merits" of (1) a weak yen and stock market rise, (2) fiscal policy, and (3) low crude oil prices. In FY2016, the addition of the last-minute rush of demand prior to the consumption tax hike should keep the pace of economic growth to around +2%.
- ❑ Among the risk factors are the downturn of the Chinese economy, the escalation of the Greek debt crisis, financial market turmoil accompanying the low crude oil prices and US interest rate hike, geopolitical risks and the formation of bubbles due to a prolonged state of monetary easing.
- ❑ Note also the risks of a stock market correction in view of the rise of sentiment that stocks are overvalued in the US and China.

## Overview – the global economy should follow a gradual expansion despite lingering downside risks

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- ❑ We expect the global economy (the weighted average of countries and regions included in MHRI's forecast) to slow slightly in 2015 (+3.2%) from the year before. In 2016, the pace of global economic growth should rise to +3.6%, due to the sustained mild expansion of the developed economies and the alleviation of downward pressures upon commodity-exporting economies stemming from the fall of crude oil prices.
- ❑ Despite a temporary slowdown, the US economy should pick up and grow around the upper half of the +2%-level. Japan is forecast to keep growing around the upper half of the +1%-level to +2% given the benefits of a weaker yen and cheap crude oil, and the last-minute rush of demand prior to the consumption tax hike in FY2016. The eurozone economy continue to follow a gradual expansion supported by monetary easing and cheap crude oil.
- ❑ The emerging economies will continue to lack power as an engine of global economic growth. In addition to the ongoing slowdown of the Chinese economy, the economies of Russia and Brazil will dip into negative territory in 2015.
- ❑ Although our main scenario outlook is a gradual recovery of the global economy, downside risks will linger such as the risks of US economic downturn due to factors such as the strong dollar and the downturn of the emerging economies such as China. Moreover, it will be necessary to keep a close eye upon the possibility of financial market turmoil and global economic slowdown including the adverse impact of the Greek debt crisis and geopolitical risks.

## Despite a temporary slowdown, the global economy should gradually expand from Apr-Jun 2015

### [ Outlook on the global economy ]

Calendar year	(Y-o-y % change)				(Y-o-y % change)		(% point)	
	2013 (Actual)	2014 (Actual)	2015 (Forecast)	2016 (Forecast)	2015 (March forecast)	2016	2015 (breadth of revision from Mar)	2016
Total of forecast area	3.3	3.3	3.2	3.6	3.3	3.6	-0.1	—
Japan, US, Eurozone	1.1	1.5	1.9	2.2	2.1	2.2	-0.2	0.1
US	2.2	2.4	2.7	2.8	3.1	2.8	-0.4	—
Eurozone	-0.4	0.9	1.4	1.6	1.3	1.5	0.1	0.1
Japan	1.6	-0.1	0.9	2.0	1.2	2.0	-0.3	—
Asia	6.1	6.0	5.9	5.9	6.0	5.9	-0.1	—
China	7.7	7.4	7.0	6.7	7.1	6.8	-0.1	-0.1
NIEs	2.9	3.3	3.0	3.1	3.2	3.1	-0.2	—
ASEAN5	5.1	4.6	4.8	4.8	5.1	5.0	-0.3	-0.2
India (FY2011 basis)	6.4	7.2	7.6	7.9	7.6	7.9	—	—
(Ref: FY2004 basis)	4.7	5.2	5.6	5.9	5.6	5.9	—	—
Australia	2.0	2.7	2.2	2.7	2.2	2.7	—	—
Brazil	2.7	0.1	-1.2	0.8	-0.3	1.0	-0.9	-0.2
Russia	1.3	0.6	-4.0	0.5	-4.5	0.5	0.5	—
Japan (FY)	2.1	-1.0	1.8	2.0	2.1	1.9	-0.3	0.1
Crude oil price (WTI, USD/bbl)	98	93	58	67	55	63	3	4

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 – the recovery should gather momentum on the tailwinds of the “Triple Merits”

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- ❑ Japan’s economy recorded growth in positive territory for the second consecutive quarter in the Jan-Mar quarter of 2015. Personal consumption and exports continued to follow a recovery track and capital investment also picked up slightly. However, the positive contribution to growth by inventory investment provides reason to be concerned that it may serve as downward pressures going forward. On a full year-basis, growth turned out to be negative (-1.0%) in FY2014 due to the slump in the first half of the fiscal year.
- ❑ In FY2015, personal consumption should continue to recover, reflecting the improvement of consumer confidence and real income. Exports and capital investment should also continue to increase under the “Triple Merits” of ① the weak yen/stock market rise accompanying the additional monetary easing by the Bank of Japan (BOJ), ② fiscal policy measures such as emergency economic stimulus measures, and ③ sharp fall of crude oil prices, leading to the expansion of the economy. FY2015 growth forecast: +1.8%.
- ❑ In FY2016, a last-minute 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 lead to strong growth for two years in a row (FY2016: +2.0%).
- ❑ Given the sharp fall of crude oil prices, the y-o-y rise of the core CPI (excluding the impact of the consumption tax hike) will dip into negative territory toward the spring to autumn of FY2015. From then onward, energy prices should rise at a faster pace amid the gradual rise of the underlying inflation rate, lifting the inflation rate above 1% toward the latter half of the forecast horizon. Even so, inflation will likely fall short of the Bank of Japan’s (BOJ) outlook that inflation will reach around 2% “around the first half of FY2016”.

## The Japanese economy: economic recovery underpinned by the “Triple Merits”. The economy will accelerate due to a last-minute rush of demand in the second half of FY2016

### [ 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	-1.0	1.8	2.0	-0.5	0.3	0.6	0.4	0.6	0.6	0.5	0.4	0.5	0.4	0.6
	Q-o-q % ch p.a.	--	--	--	--	-2.1	1.1	2.4	1.5	2.6	2.5	2.0	1.5	2.0	1.6	2.5
Domestic demand	Q-o-q % ch	2.5	-1.6	1.4	1.8	-0.6	0.0	0.7	0.2	0.5	0.5	0.4	0.3	0.4	0.4	0.9
Private sector demand	Q-o-q % ch	2.3	-2.4	1.9	2.2	-0.9	-0.0	1.1	0.4	0.6	0.7	0.6	0.4	0.5	0.5	1.1
Personal consumption	Q-o-q % ch	2.5	-3.1	1.6	1.8	0.3	0.4	0.4	0.4	0.5	0.4	0.3	0.2	0.4	0.6	1.7
Housing investment	Q-o-q % ch	9.3	-11.6	2.4	5.9	-6.4	-0.6	1.8	1.3	1.2	1.1	0.6	0.8	3.8	0.9	1.3
Capital investment	Q-o-q % ch	4.0	-0.5	2.9	3.2	-0.1	-0.0	0.4	0.9	1.1	1.2	0.9	0.6	0.6	0.7	0.8
Inventory investment	Q-o-q contribution, % pt	-0.5	0.5	0.0	-0.0	-0.7	-0.2	0.5	-0.1	-0.1	0.1	0.1	0.1	-0.1	-0.1	-0.3
Public sector demand	Q-o-q % ch	3.2	0.8	-0.1	0.5	0.5	0.2	-0.2	-0.4	0.2	0.1	-0.0	0.1	0.2	0.2	0.3
Government consumption	Q-o-q % ch	1.6	0.5	0.9	1.0	0.2	0.3	0.1	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3
Public investment	Q-o-q % ch	10.3	2.0	-4.2	-1.6	1.6	0.1	-1.4	-3.4	0.1	0.0	-1.1	-0.6	-0.3	0.0	0.2
External demand	Q-o-q contribution, % pt	-0.5	0.6	0.4	0.2	0.1	0.3	-0.2	0.1	0.2	0.1	0.0	0.1	0.1	-0.0	-0.3
Exports	Q-o-q % ch	4.4	8.0	6.6	6.3	1.6	3.2	2.4	0.5	1.4	1.5	1.5	1.5	1.6	1.7	1.7
Imports	Q-o-q % ch	6.7	3.7	4.0	5.2	1.1	1.4	2.9	-0.3	0.5	0.9	1.2	1.1	1.2	1.8	3.0
GDP (nominal)	Q-o-q % ch	1.8	1.4	2.3	2.1	-0.6	0.7	1.9	-0.2	0.3	0.9	0.8	-0.3	0.5	1.2	1.1
GDP deflator	Y-o-y % ch	-0.3	2.5	0.5	0.1	2.1	2.4	3.4	1.0	0.7	0.6	-0.3	-0.4	-0.1	0.4	0.6
Domestic demand deflator	Y-o-y % ch	0.4	2.1	-0.2	0.7	2.3	2.1	1.4	-0.4	-0.4	-0.2	0.3	0.5	0.7	0.8	0.9

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 fall into negative territory. However, the underlying inflation rate will still be positive

### [ 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	2.5	4.1	-1.4	0.8	1.5	0.1	0.7	0.8	0.7	1.0	1.2	1.3	1.6
Ordinary profits	Y-o-y % ch	20.9	8.4	11.2	7.6	7.4	12.1	10.8	17.5	16.3	6.4	6.9	5.7	7.1	7.6	9.7
Nominal compensation of employees	Y-o-y % ch	1.0	1.7	1.7	2.1	2.2	1.8	1.3	1.5	1.6	2.0	1.4	2.1	2.0	2.4	1.7
Unemployment rate	%	3.9	3.5	3.4	3.3	3.6	3.5	3.5	3.4	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	90.9	96.0	86.1	88.0	89.6	90.0	90.8	91.3	91.9	96.2	96.7	98.1	92.5
Current account balance	P.a., JPY tril	1.5	7.8	14.9	13.8	2.0	10.7	14.9	14.1	12.6	18.7	14.4	12.3	11.1	18.8	13.1
Domestic corporate goods prices	Y-o-y % ch	1.9	2.8	-0.9	1.2	4.0	2.4	0.4	-2.2	-1.4	-0.7	0.6	1.3	1.3	1.1	1.0
Consumer prices (ex fresh food)	Y-o-y % ch	0.8	2.8	0.1	1.3	3.2	2.7	2.1	0.0	-0.3	-0.0	0.6	0.9	1.3	1.5	1.5
Consumer prices (ex fresh food, ex consumption tax)	Y-o-y % ch	0.8	0.8	0.0	1.3	1.2	0.7	0.1	-0.1	-0.3	-0.0	0.6	0.9	1.3	1.5	1.5
Consumer prices (ex food (ex alcohol) and energy, ex consumption tax)	Y-o-y % ch	0.2	0.5	0.4	0.8	0.6	0.5	0.4	0.3	0.5	0.5	0.5	0.7	0.7	0.8	0.8
Uncollateralized overnight call rate	%	0.04	0.02	0~0.10	0~0.10	0.03	0.07	0.02	0~0.10	0~0.10	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	0.50	0.65	0.53	0.44	0.34	0.40	0.50	0.50	0.60	0.60	0.65	0.65	0.70
Nikkei average	JPY	14,424	16,272	20,600	21,600	15,562	16,705	18,175	20,000	20,300	20,800	21,100	21,300	21,500	21,700	21,800
Exchange rate	JPY/USD	100	110	123	128	104	115	119	120	122	125	126	127	128	128	129
Crude oil price (WTI nearest term contract)	USD/bbl	99	81	61	69	97	73	49	58	61	62	64	65	68	70	72

- 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. The number of new housing starts are seasonally-adjusted monthly data converted into quarterly averages (converted into annualized terms).  
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.  
5. The core inflation rate refers to the y-o-y change of the CPI (general ex fresh food), and the underlying inflation rate refers to the y-o-y change of the CPI (general ex food (ex alcohol) and energy).
- 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: gradual yen depreciation, stock market rise and low long-term interest rates

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- ❑ Despite lingering concerns regarding geopolitical risks, the stock and bond markets will remain firm reflecting the monetary easing in Japan and the eurozone. The US should keep the pace of rate hikes shallow, with the yield on US government bonds below 3%. Crude oil prices should gradually rise after bottoming out.
- ❑ In the US, the Fed is expected to start raising interest rates in September 2015. In contrast, the BOJ may implement a further bout of monetary easing in the second half of 2015 in order to achieve the inflation target. Even though the yen should weaken against the dollar due to the gap in monetary policy between the US and Japan, the pace of yen weakening is expected to be moderate. Japanese stocks are predicted to rise, reflecting the trend to increase shareholder returns amid the ongoing weakness of the yen.
- ❑ Turning to domestic long-term interest rates, the BOJ's massive government bond purchases is keeping the volatility of interest rates subdued, restraining the rise of interest rates for the time being. Looking forward, domestic interest rates may gradually be subject to upward pressures amid the rise of the stock market and US interest rates. However, fluctuations in overseas interest rates and uncertainties regarding fiscal discipline 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 2<sup>nd</sup> half of FY2016

### [ Outlook on the financial markets (May 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	0.30	0.30	0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.30
Newly-issued JGBs (10-yr, %)	0.48	0.50	0.65	0.34	0.40	0.50	0.50	0.60	0.60	0.65	0.65	0.70
Nikkei average (JPY)	16,272	20,600	21,600	18,175	20,000	20,300	20,800	21,100	21,300	21,500	21,700	21,800
US												
Federal funds rate (end-of-period rate, %)	0~0.25	0.75~1.00	2.00~2.50	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	2.00~2.50
Newly-issued government bonds (10-yr, %)	2.33	2.30	2.70	1.96	2.10	2.25	2.35	2.50	2.60	2.70	2.75	2.85
Dow Jones average (USD)	17,191	18,200	18,900	17,806	18,000	18,100	18,200	18,400	18,600	18,800	19,000	19,200
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	0.35	0.70	0.35	0.40	0.30	0.30	0.40	0.50	0.65	0.70	0.80
Forex												
JPY/USD exchange rate (JPY/USD)	110	123	128	119	120	122	125	126	127	128	128	129
USD/EUR exchange rate (USD/EUR)	1.27	1.08	1.03	1.13	1.11	1.09	1.06	1.04	1.03	1.03	1.02	1.02
Crude oil (WTI futures) (USD/bbl)	81	61	69	49	58	61	62	64	65	68	70	72

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.

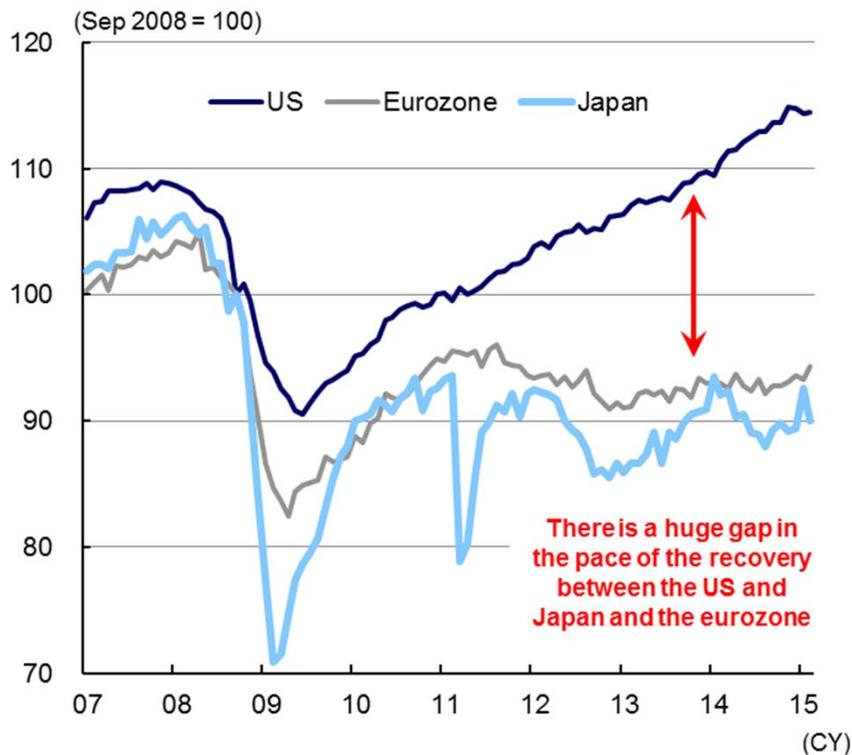
Euroyen TIBOR (360-day basis). 5-yr swaps (fixed interest rate toward 6-mo LIBOR). Forex rates are based upon New York closing rates.

Source: Made by MHRI based upon Bloomberg.

## The global economic recovery will temporarily moderate due to the slowdown of the US and Chinese economies

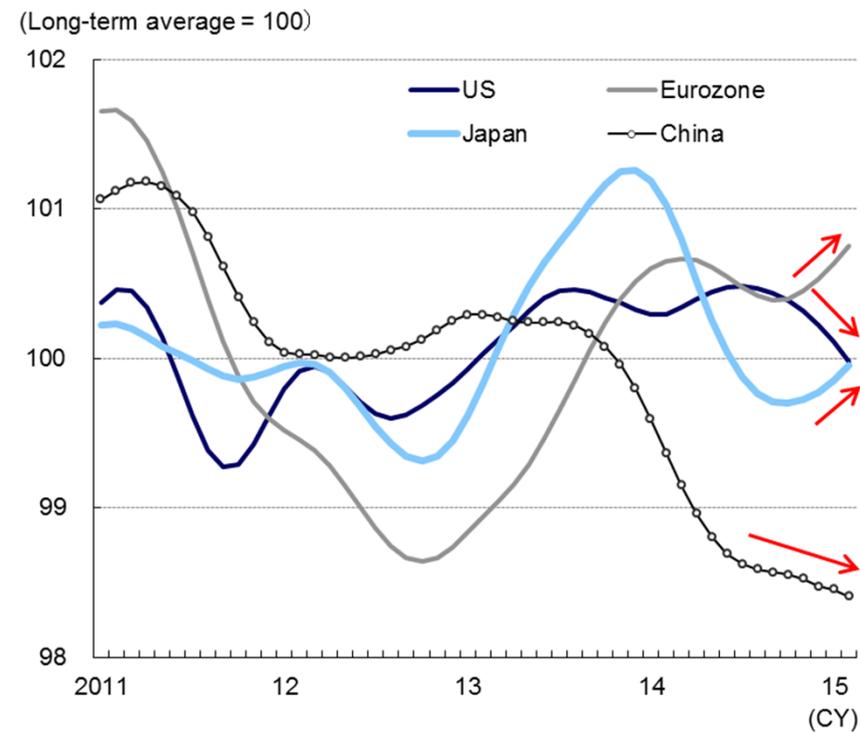
- The picture remains unchanged that the US is picking up ahead of the eurozone and Japan, leading to a gap in monetary policy.
  - However, note that the pace of global economic growth is falling short of expectations due to a temporal stagnation of the US economy and slowdown of China's economic growth.

[ Trends in industrial production  
(Japan, US, eurozone) ]



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

[ OECD Leading Indicators ]

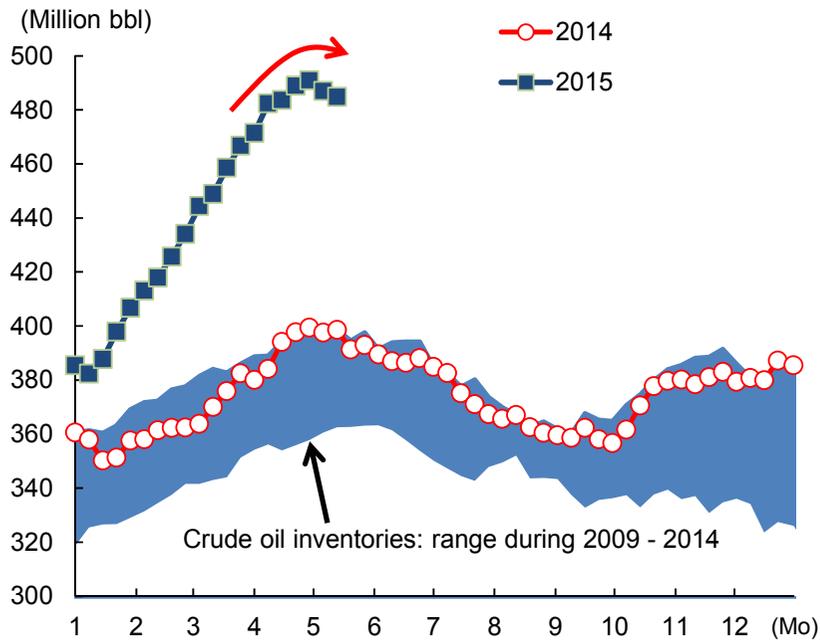


Source: Made by MHRI based upon Bloomberg.

## Despite forecasts of a crude oil recovery, the upturn will be limited

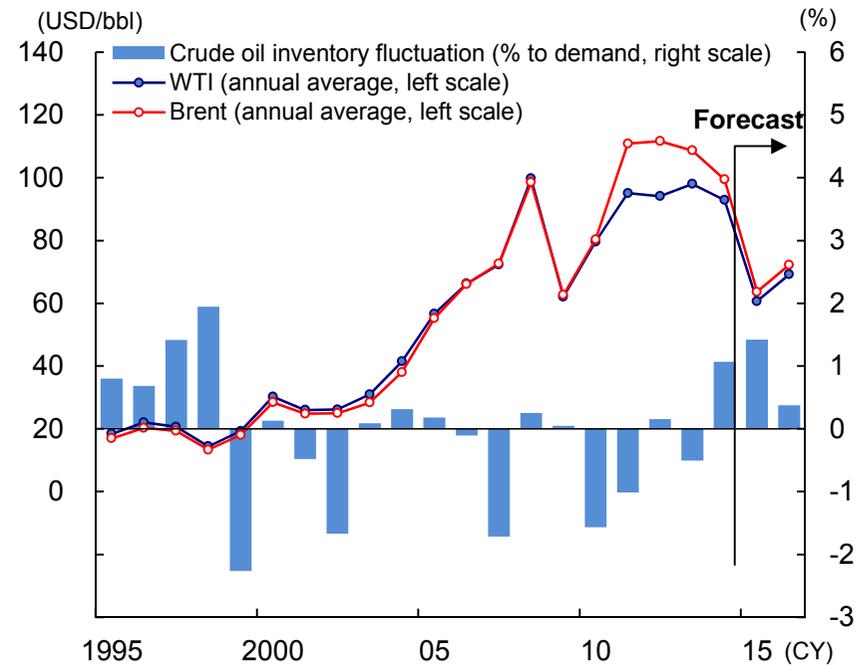
- The crude oil market is predicted to recover, reflecting the adjustment of crude oil output in the US.
  - Since the rise of crude oil inventories is already coming to a halt in the US, we should be able to ascertain an output adjustment from now on.
  - Even so, the recovery of crude oil prices will rekindle incentive for the production of crude oil.
  - It will take time for the record-high US crude oil inventories to stabilize at a level deemed appropriate by the market.
  - As such, the WTI will likely hover around the USD60-level in the second half of 2015 and fall short of an average of USD70 in 2016.

[ US private-sector crude oil inventories ]



Source: Made by MHRI based upon EIA.

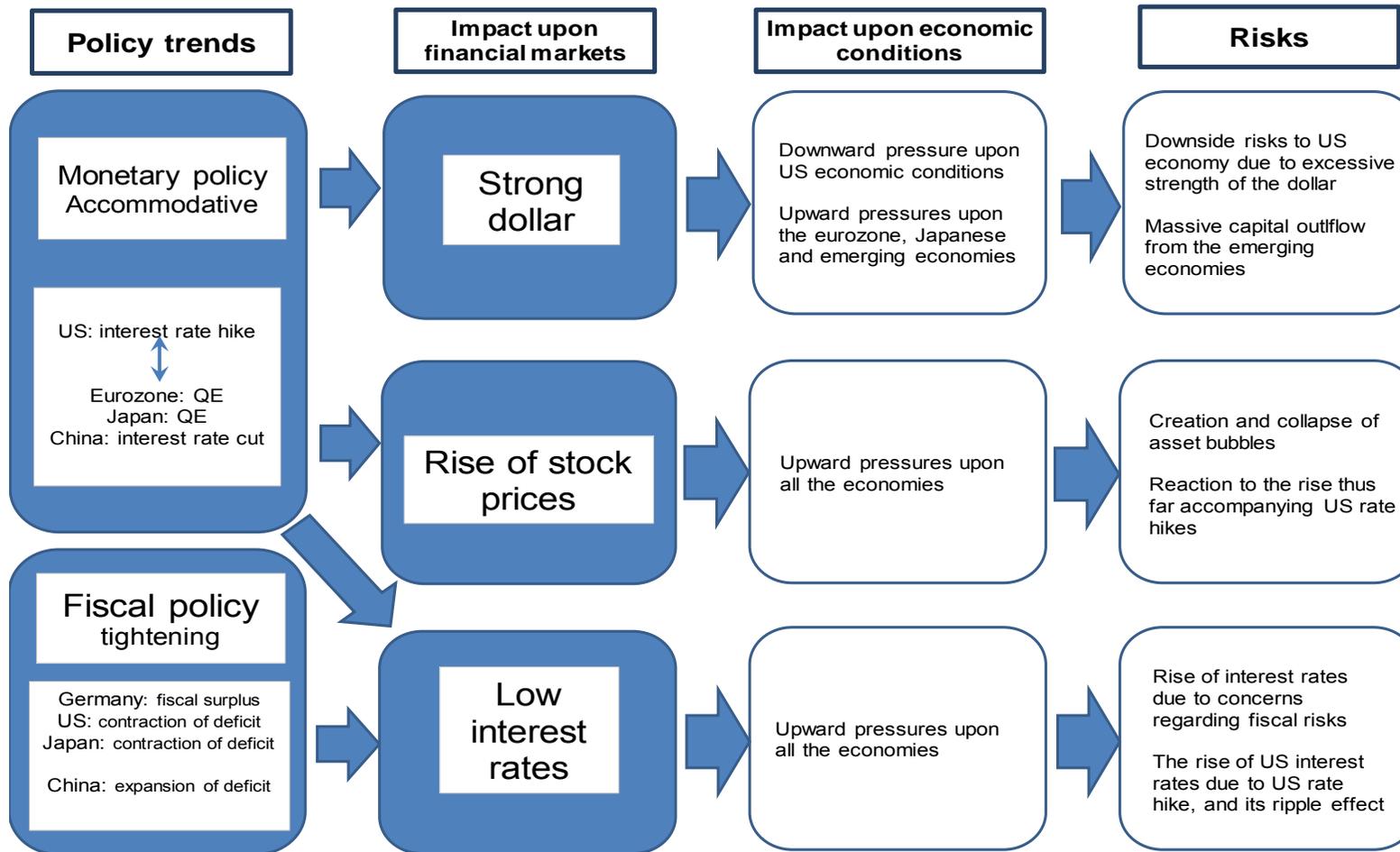
[ Crude oil price forecast ]



Sources: Made by MHRI based upon Bloomberg, IEA.

**(1) Impact of global policy trends: even though monetary easing will support the global economy, the side effects are a source of concern**

[ Global policy trends and their impact ]

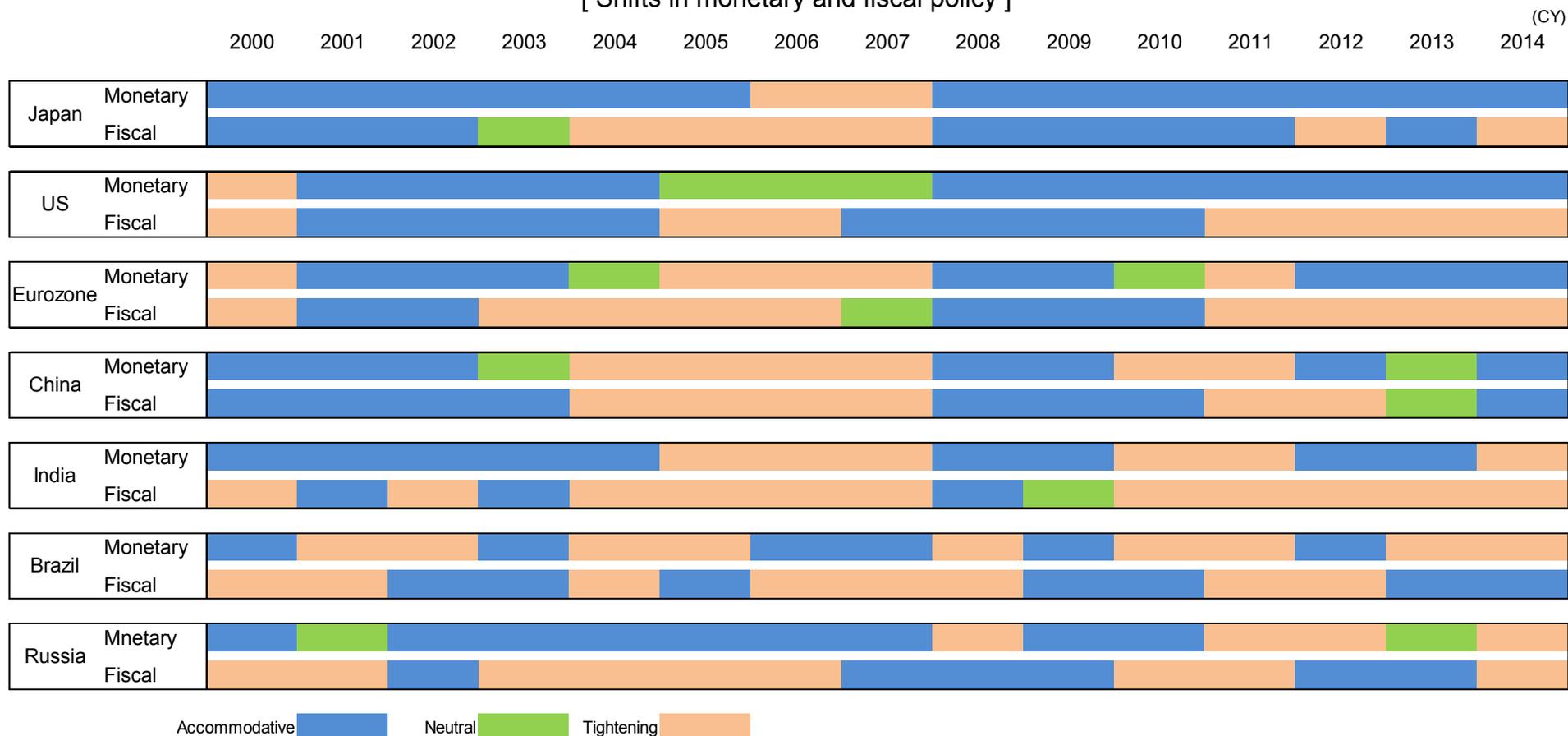


Source: Made by MHRI.

# A policy mix of monetary easing and fiscal tightening among developed countries and disparate policy among emerging countries

- ❑ Despite the adoption of fiscal and monetary easing measures around the world after the global financial crisis, the developed countries shifted to a policy mix of monetary easing and fiscal tightening after the eurozone debt crisis.
  - Among the emerging countries, China is shifting to an easing stance in both monetary and fiscal policy in a bid to support the economy while countries concerned with the weakening of their currencies are shifting to tightening mode.

[ Shifts in monetary and fiscal policy ]

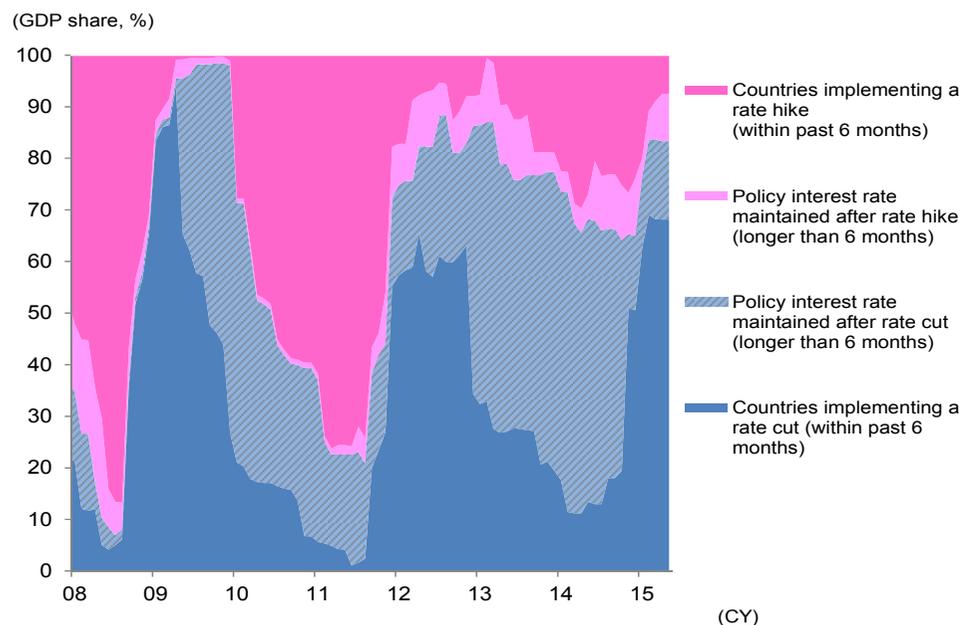


Sources: Made by MHRI based upon releases by the IMF and central banks of relevant countries and regions.

## Rising dependence upon monetary policy: shift to monetary easing around the world amid a slowdown of inflation

- Note a rising trend toward monetary easing around the world along with the slowdown of inflation due to the fall of crude oil prices. This is resulting in the rise of dollar-strengthening pressures.
  - Following the ECB's adoption of quantitative monetary easing measures, there has been a spate of monetary easing even among the emerging countries.

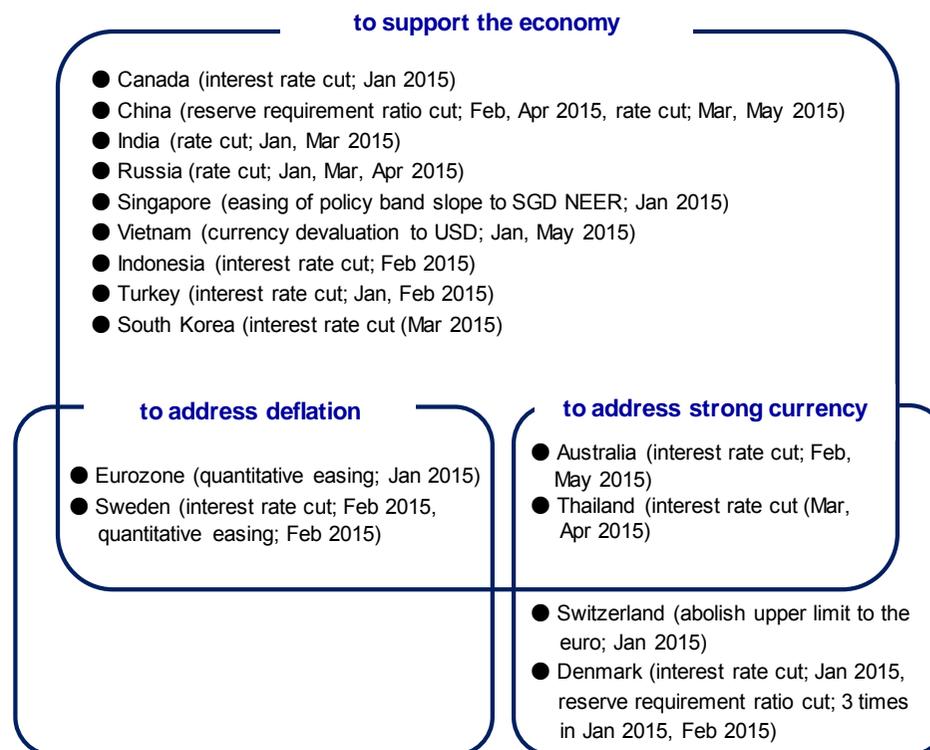
[ Interest rate cuts among emerging countries ]



Note: Nominal GDP of 60 countries categorized into four categories (according to implementation of interest rate hikes/cuts)

Sources: Made by MHRI based upon IMF and central banks of relevant countries and regions.

[ Shift to monetary easing around the world from 2015 ]



Sources: Made by MHRI based upon central banks of relevant countries and regions.

## Negative interest rates are still lingering mainly in Europe

- ❑ Interest rates are still in negative territory mainly in Europe, reflecting the ECB's adoption of quantitative monetary easing.
- ❑ Under these conditions, funds will tend to flow to US government bonds given their high liquidity.

[ Interest rates are under water around the world ]

	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	11Y	12Y	13Y	14Y	15Y	20Y	30Y	40Y
Switzerland	-0.80	-0.77	-0.74	-0.57	-0.40	-0.30	-0.17	-0.11	-0.02	0.05	0.09	0.14	0.20	0.26	0.32	0.43	0.58	0.61
Germany	-0.21	-0.21	-0.16	-0.05	0.07	0.14	0.26	0.41	0.52	0.63	0.68	0.73	0.78	0.83	0.88	1.09	1.26	
Denmark	-0.35	-0.31	-0.19	-0.08	0.03	0.36	0.45	0.55	0.69	0.84	0.86	0.89	0.91	0.94	0.97	1.10	1.35	
Sweden	-0.39	-0.29	-0.15	0.05	0.25	0.38	0.51	0.68	0.74	0.81	0.87	0.92	0.98	1.04	1.09	1.37		
Finland	-0.22	-0.19	-0.03	0.07	0.16	0.20	0.28	0.50	0.58	0.69	0.76	0.82	0.89	0.96	1.02	1.10	1.26	
Netherlands	-0.18	-0.18	-0.07	0.02	0.14	0.32	0.46	0.60	0.69	0.81	0.84	0.86	0.89	0.92	0.94	1.13	1.36	
Austria	-0.17	-0.12	0.00	0.11	0.20	0.35	0.52	0.64	0.70	0.76	0.79	0.83	0.87	0.91	0.95	1.09	1.38	
France	-0.18	-0.16	-0.05	0.09	0.23	0.32	0.47	0.64	0.78	0.92	0.99	1.06	1.13	1.20	1.27	1.44	1.70	
Japan	0.00	-0.01	0.00	0.04	0.10	0.12	0.20	0.27	0.33	0.40	0.46	0.53	0.59	0.65	0.72	1.19	1.45	1.62
Ireland	0.05	0.07	0.10	0.17	0.45	0.55	0.78	1.01	1.14	1.29	1.36	1.43	1.49	1.56	1.63	1.78	2.07	
Italy	0.02	0.11	0.32	0.43	0.72	1.13	1.36	1.60	1.78	1.86	1.97	2.08	2.18	2.29	2.40	2.66	2.96	
Spain	0.01	-0.03	0.16	0.36	0.68	1.03	1.23	1.48	1.74	1.80	1.92	2.04	2.16	2.28	2.40	2.56	2.87	
Norway	0.86	0.82	0.77	0.87	0.97	1.10	1.23	1.42	1.62	1.67								
UK	0.48	0.53	0.97	1.25	1.46	1.57	1.76	1.88	1.93	1.98	2.05	2.13	2.21	2.28	2.36	2.51	2.66	2.56
Canada	0.71	0.68	0.71	0.83	1.06	1.25	1.45	1.60	1.69	1.80	1.85	1.91	1.96	2.02	2.08	2.36	2.40	
US	0.19	0.59	0.98	1.26	1.55	1.76	1.97	2.06	2.15	2.25	2.29	2.33	2.37	2.41	2.45	2.65	3.05	
Portugal	0.03	0.09	0.32	0.72	1.07	1.39	1.72	2.06	2.18	2.42	2.52	2.62	2.71	2.81	2.90	3.18	3.39	
China	2.86	3.04	3.18	3.26	3.40	3.44	3.48	3.53	3.54	3.49	3.49	3.48	3.48	3.47	3.47			
Turkey	9.55	9.39	8.96	8.92	8.96	8.91	8.85	8.90	8.86	8.82								
India	7.79	7.75	7.79	7.75	7.86	7.97	7.97	7.95	7.90	7.86	7.97	7.88	7.98	7.89	8.01	7.96	7.98	
Russia	10.68	10.55	10.63	10.70	10.77	10.70	10.63	10.56	10.49	10.42	10.39	10.36	10.34	10.31	10.29	10.22		
Greece			22.32	19.17	16.02	15.05	14.09	13.12	12.15	11.18	10.99	10.80	10.61	10.42	10.23	9.37	8.80	

	Below 0%
	Above 0% up to 0.5%
	Above 0.5% up to 1.0%
	Above 1.0%

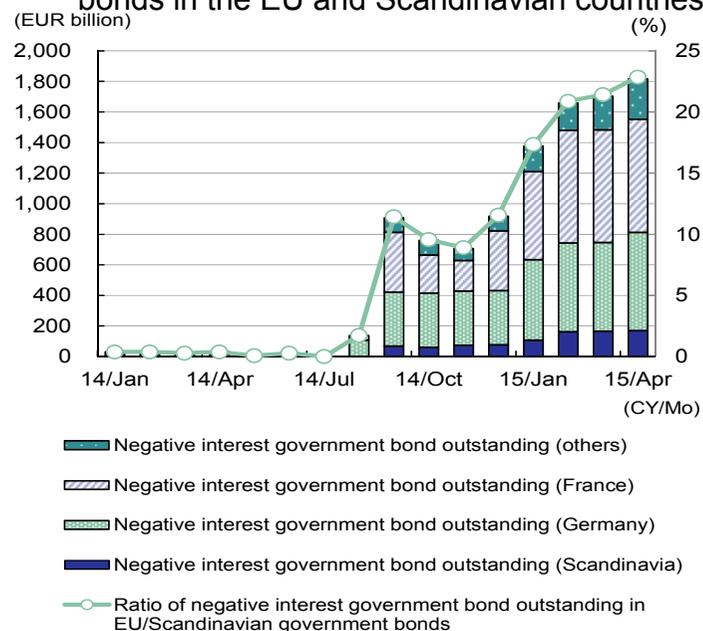
Note: As of May 20, 2015.

Sources: Made by MHRI based upon Bloomberg.

# Eurozone government bond rates are sinking below zero

- ❑ It appears that interest rates on approximately 23% of EU and Scandinavian government bonds – a total of EUR1.8 trillion – is falling into negative territory.
- ❑ Given the negative interest rate on central government deposits, financial institutions are continuing to keep more deposits in central banks even at a cost.
  - On the other hand, so long as the negative interest rate is around -0.2%, this will not trigger an exodus from central bank deposits, considering that it is less than the transaction cost to cash the excess reserve deposit.

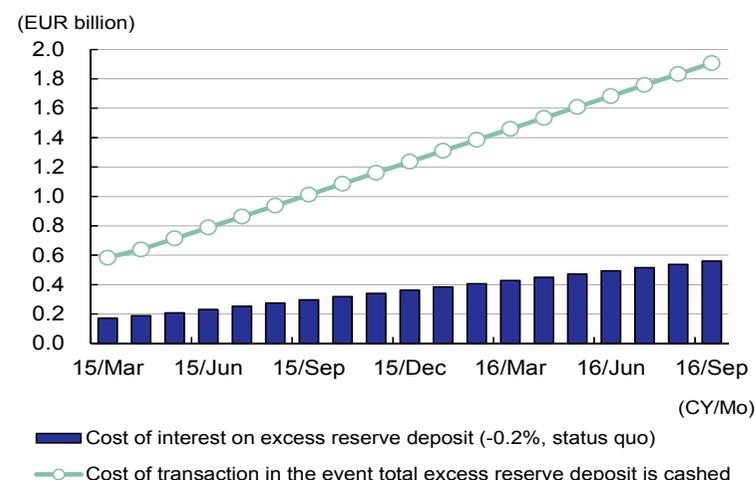
[ Outstanding balance and ratio of negative interest government bonds in the EU and Scandinavian countries ]



Note: 23 countries including: Germany, France, Italy, Spain, Austria, Belgium, Bulgaria, Croatia, Czech, Greece, Hungary, Ireland, Netherlands, Poland, Portugal, Romania, Slovakia, Switzerland, Denmark, Finland, Sweden, Norway, UK. Government bonds denominated in domestic currency, having maturities longer than 1 yr. Government bonds outstanding takes into consideration the change in yields of government bonds outstanding as of May 8, 2015.

Sources: Made by MHRI based upon Bloomberg.

[ Comparison of negative interest rate costs and cash transaction costs (Germany) ]



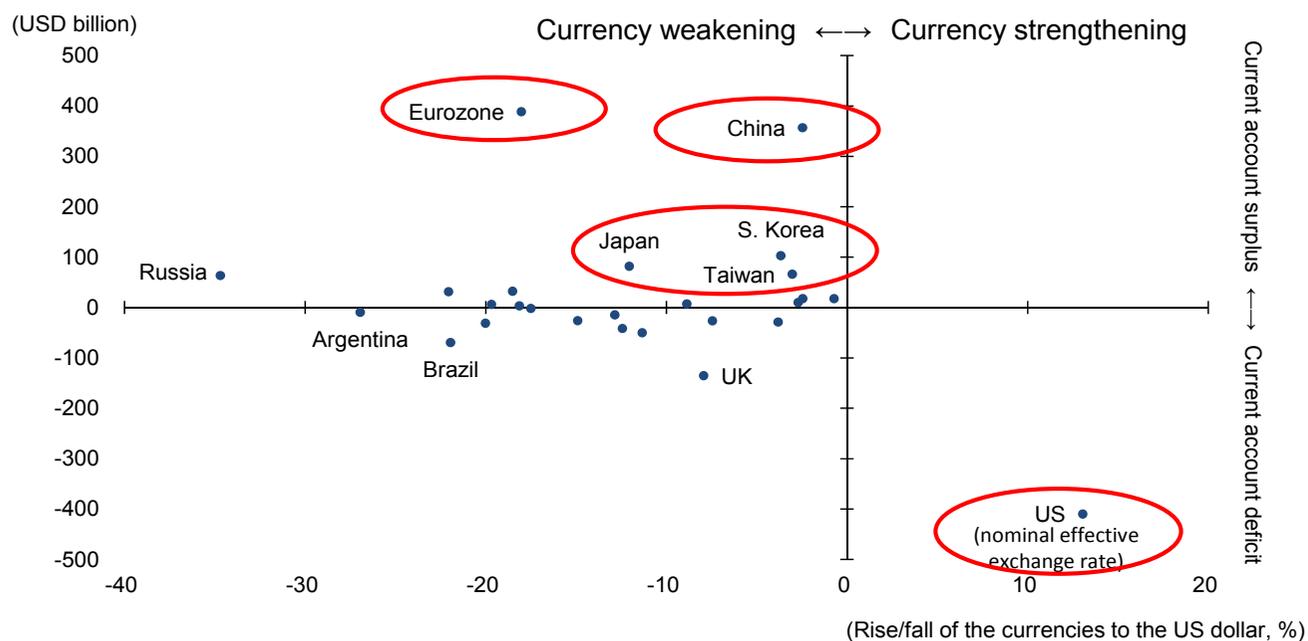
Note: The cost of interest on excess reserve deposit is the cost calculated on the assumption that an interest rate of -0.2% is imposed upon the amount of public bond purchases by Germany assumed as a result of QE (EUR11 billion/month). The cost of transaction in the event the excess reserve deposit is cashed, is calculated on the basis of the cash transaction cost (ex manpower cost) per euro of German banks at the end of 2011, based upon the cost assuming that the total amount of excess reserve deposit is cashed, based upon Klein et al (2013).

Sources: Made by MHRI based upon Klein et al. (2013) "Cost of Cash : Status Quo und Entwicklungsperspektiven in Deutschland", Deutsche Bundesbank, ECB.

## Alarms toward the risks of a correction of the strong dollar

- Growing alarms toward the expansion of the global imbalance are serving to curb a further strengthening of the dollar.
  - Given the rising discomfort in the US toward weak currencies of countries with current account surpluses, the market is watching closely any signs of US warning toward the strong dollar.
  - As the eurozone current account surplus rises to the highest level in the world, the currency weakening is serving to widen the imbalance further.
  - There are rising concerns toward the persistence of a strong dollar since the dollar's strength to other currencies facilitates the expansion of global imbalances.
  - The expansion of imbalances will serve to raise the risks of the outflow of funds from emerging countries with current account deficits.

[ Forex rates and the IMF's 2015 current account forecast ]



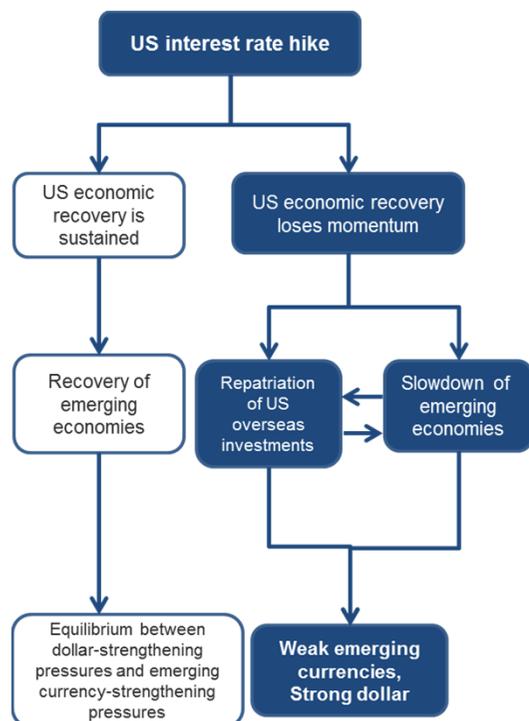
Note: The foreign exchange rates refer to the rise/fall of each of the currencies to the US dollar from the end of 2013. The US is represented as the nominal effective exchange rate. Current account balances are based upon IMF forecasts.

Sources: Made by MHRI based upon IMF.

# Risks of funds outflow from emerging countries accompanying US interest rate hike

- Emerging countries with fragile fundamentals are still a risk factor for the global economy.
  - Some are concerned that an interest rate hike might lead to a loss of momentum of the US economy, in view of weaknesses in certain economic indicators.
  - Since the US is a major driver of the global economy at the moment, a loss of momentum of the US economy may ripple through to a worst-case scenario of the global economy.
  - However, the chances of a worst-case scenario are slim, judging from the relatively good fundamentals of the Asia economies which is the center of global growth.

[ Post-US rate hike global scenario ]



Source: Made by MHRI

[ Fragile countries in terms of economic fundamentals ]

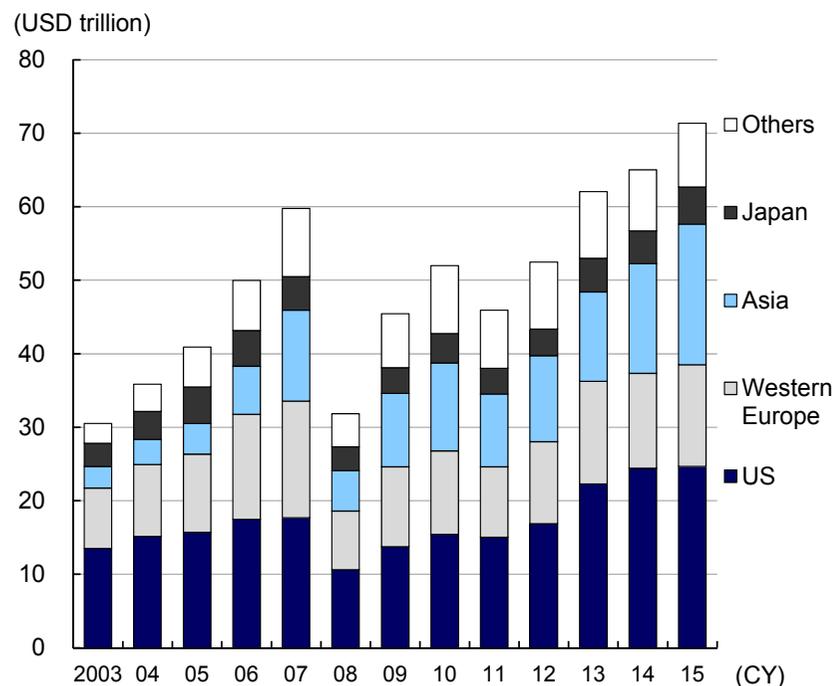
Country	Current account balance (% of GDP)		Foreign currency reserve (to short-term external debt) (multiple)	Real GDP growth rate (%)				Inflation rate (%)	
	2014	2015 (IMF forecast)		2014		2015 (IMF forecast)		2014	
				(Y-o-y ch, % pt)	(Y-o-y ch, % pt)	(Y-o-y ch, % pt)	(Y-o-y ch, % pt)		
Turkey	-5.7	-4.2	1.05	2.9	-1.2	3.1	0.3	8.9	1.4
South Africa	-5.4	-4.6	2.29	1.5	-0.7	2.0	0.5	6.1	0.3
Colombia	-5.0	-5.8	3.58	4.6	-0.4	3.4	-1.2	2.9	0.9
Algeria	-4.3	-15.7	131.24	4.1	1.4	2.6	-1.5	2.9	-0.3
Brazil	-3.9	-3.7	3.07	0.1	-2.6	-1.0	-1.2	6.3	0.1
Iraq	-3.5	-9.6	—	-2.4	-9.0	1.3	3.7	2.2	0.4
Indonesia	-3.0	-3.0	1.96	5.0	-0.6	5.2	0.2	6.4	0.0
Mexico	-2.1	-2.2	3.59	2.1	0.7	3.0	0.9	4.0	0.2
India	-1.4	-1.3	2.77	7.2	0.3	7.5	0.3	6.0	-4.0
Pakistan	-1.2	-1.3	4.85	4.1	0.4	4.3	0.2	8.6	1.3
Poland	-1.2	-1.8	2.78	3.3	1.6	3.5	0.2	0.0	-0.9
Chile	-1.2	-1.2	1.71	1.8	-2.5	2.7	0.9	4.4	2.5
Argentina	-0.9	-1.7	2.90	0.5	-2.4	-0.3	-0.8	—	—
Egypt	-0.8	-3.3	1.29	2.2	0.1	4.0	1.9	10.1	3.2
Bangladesh	-0.1	-0.6	—	6.1	0.0	6.3	0.2	7.0	-0.5
Kazakhstan	1.6	-4.1	4.23	4.3	-1.7	2.0	-2.3	6.7	0.9
China	2.0	3.2	4.55	7.4	-0.4	6.8	-0.6	2.0	-0.6
Nigeria	2.2	0.7	3.82	6.3	0.9	4.8	-1.6	8.1	-0.4
Russia	3.1	5.4	4.24	0.6	-0.7	-3.8	-4.5	7.8	1.1
Thailand	3.8	4.4	7.48	0.7	-2.2	3.7	3.0	1.9	-0.3
Iran	3.8	0.8	—	3.0	4.9	0.6	-2.4	15.5	-19.2
Venezuela	4.3	-4.7	0.57	-4.0	-5.3	-7.0	-3.0	62.2	21.5
Philippines	4.4	5.5	5.76	6.1	-1.1	6.7	0.6	4.2	1.2
Malaysia	4.6	2.1	2.34	6.0	1.3	4.8	-1.2	3.1	1.0
Vietnam	5.4	4.8	—	6.0	0.6	6.0	0.0	4.1	-2.5

Note: The shaded economic indicators show concerns regarding fragileness. The shaded countries are countries with concerns. Sources: Made by MHRI based upon IMF, World Bank, Bloomberg.

## (2) Sustainability of the global stock market rally: stock prices are rallying reflecting monetary easing measures

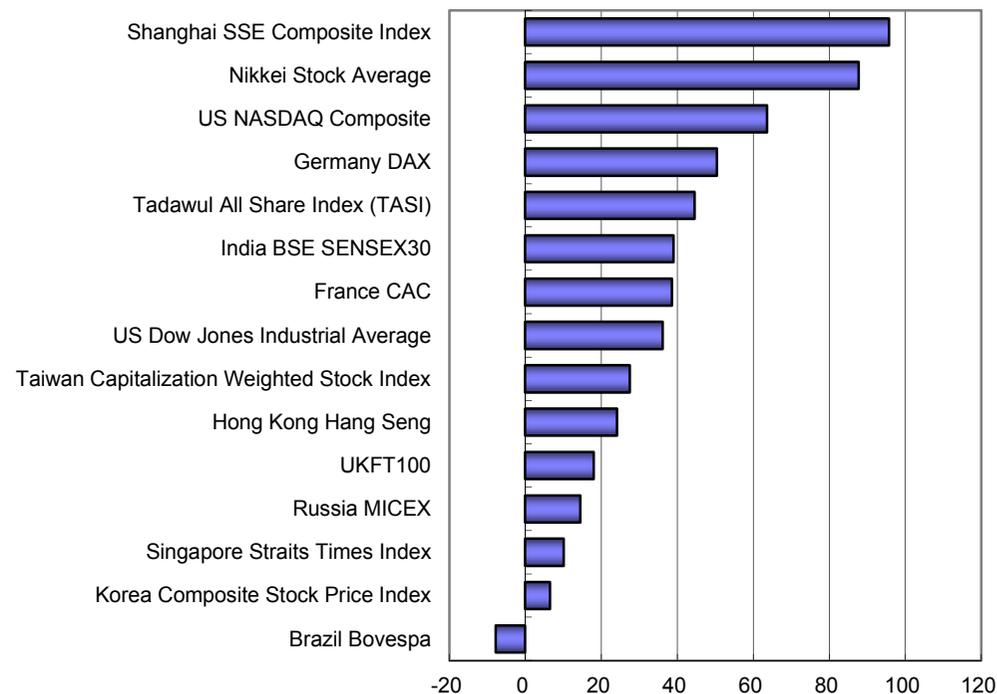
- Global stock market capitalization has recovered to pre-Lehman Crisis levels, and is still rising.
  - In particular, note the rise of concerns regarding a bubble with respect to the rallying Chinese stocks and US NASDAQ.

[ Trends in global market capitalization ]



Note: As of the end of April for 2015. Others are as of the end of each year.  
Sources: Made by MHRI based upon Bloomberg.

[ Rise/fall of major stock indexes ]



Note: Period from end of 2012 to end of April 2015.  
Sources: Made by MHRI based upon Bloomberg.

## Even so, the indexes do not indicate that US and Chinese stocks are at near bubble-levels

- Stocks do not appear excessively overvalued in comparison with the IT bubble around 2000 and the Chinese stock bubble in 2007.
  - Even so, it is true that stocks are overvalued in comparison with the average level in the past.
  - In particular, Chinese stocks need to be watched closely given its rapid rise amid the slowdown of the economy.

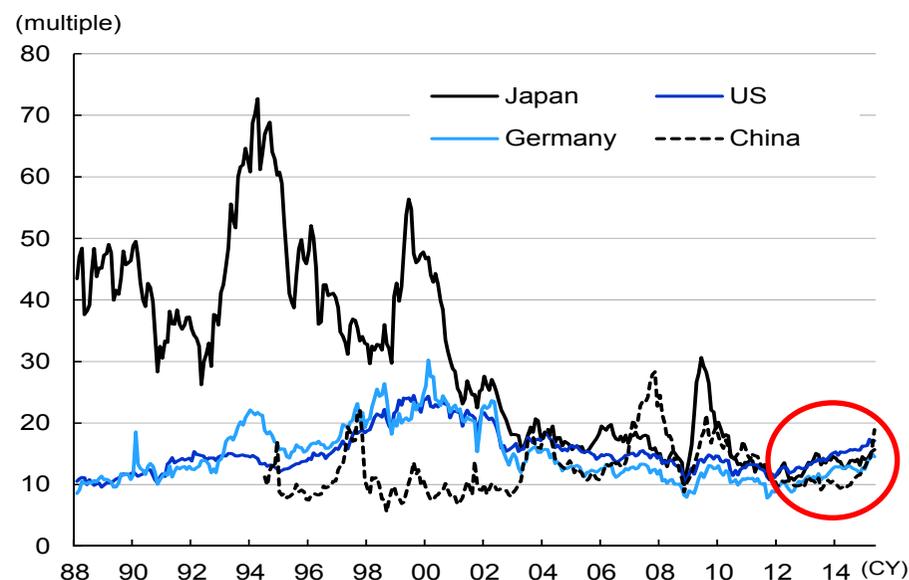
[ Comparison of stock valuation (Japan, US, Germany, China) ]

①IT Bubble: end of Mar 2000, ②Chinese Stock Bubble: end of Oct 2007, ③ End of Apr 2015

		Japan TOPIX	US S&P500	Germany DAX	China SSE composite
Forward 12- mo P/E ratio (multiple)	①	42.9	22.6	27.6	7.5
	②	16.0	14.9	12.5	28.3
	③	15.7	17.1	14.5	18.9
Actual PBR (multiple)	①	2.5	5.0	3.1	5.3
	②	1.8	2.9	2.0	6.6
	③	1.4	2.9	1.9	2.6
Gross dividend yield (%)	①	0.6	1.1	—	—
	②	1.3	1.8	2.4	0.5
	③	1.6	2.0	2.4	1.5
Yield spread (% pt)	①	-0.6	1.6	3.7	—
	②	-4.7	-2.2	-3.8	0.9
	③	-6.0	-3.8	-6.5	-1.9

Note: "Yield spread" = yield on 10-yr government bond minus earning yield.  
Sources: Made by MHRI based upon Bloomberg, Datastream.

[ Comparison of P/E ratio trends (Japan, US, Germany, China) ]

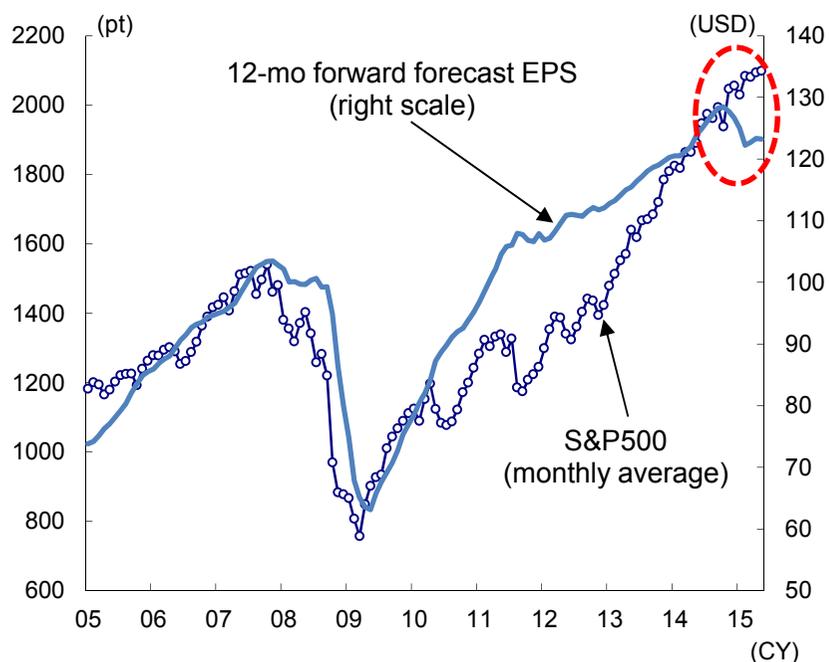


Note: Forward 12-mo P/E ratio of key stock indexes.  
Sources: Made by MHRI based upon Datastream.

## US stock market: a heavy upside over the short term, given the rise of investor sentiment that stocks are overvalued

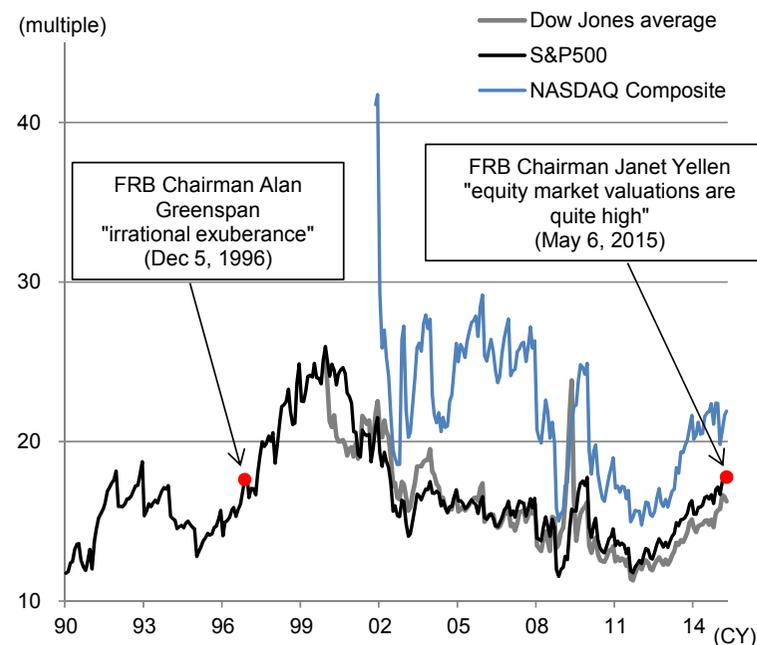
- Despite the strength of the stock market reflecting the accommodative monetary environment, some of the movements have been slightly detached from the real economy, leading to a heavy upside over the short term.
  - However, stock market conditions are not deemed as a bubble since the P/E ratio from long-term data series is not excessively high, and do not appear overvalued in relative terms to bonds. The rise of the P/E ratio is levelling out due in part to the heavy upside of the market.
  - Although corporate earnings are expected to start improving again in the second half of the year, the recovery of the economy will raise speculation toward an interest rate hike, leading to a heavy upside of the stock market in the second half of 2015. On the other hand, a stock market rally would lead to bubble conditions, raising the risks of a sharp correction.

[ S&P500: forecast EPS and monthly average ]



Source: Made by MHRI based upon Datastream.

[ Forecast P/E ratio of major US stock indexes ]

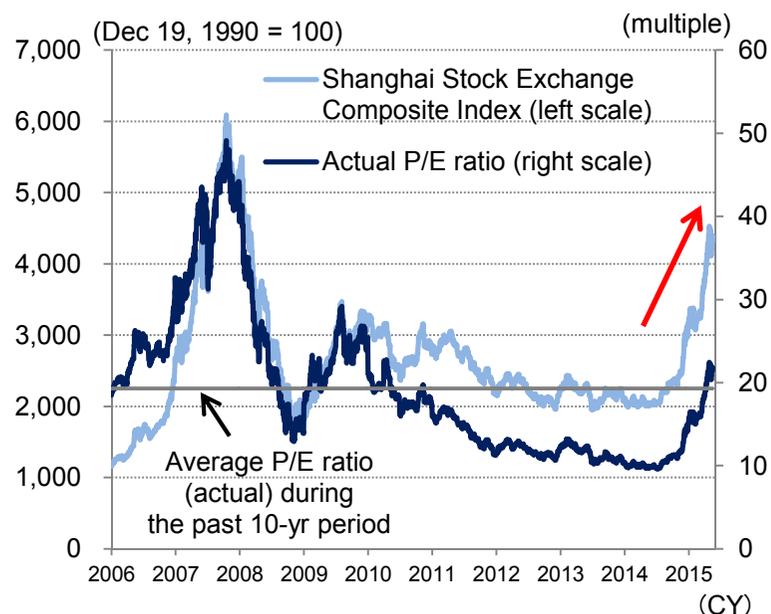


Note: Data on Dow Jones average from Dec 1999. Data on NASDAQ from Nov 2001.  
Sources: Made by Mizuho Research Instituted based upon Bloomberg.

## China's stock market: sharp rally triggers alarms and the possible rise of volatility

- ❑ The Shanghai Stock Exchange Composite Index has been rising sharply since the end of last year, reaching the highest level since February 2008. The P/E ratio (actual) is also reaching above the average during the past 10-yr period.
  - Among the factors lifting the stock market are expectations toward economic support such as monetary easing, the expansion of margin trading, and the sharp rise of domestic private investors.
- ❑ The China Securities Regulatory Commission is expressing concerns by tightening regulatory oversight on margin trading and statements warning of the risks of stock investment.
- ❑ Despite high expectations toward economic support measures, the market should turn more responsive to bearish factors such as tighter oversight upon margin trading along with the rise of alarms toward the rise of stock prices, leading to the rise of volatility.

[ Shanghai Stock Exchange Composite Index ]



Source: Made by MHRI based upon Bloomberg.

[ Background factors to the rise of China's stock market and the government's stance ]

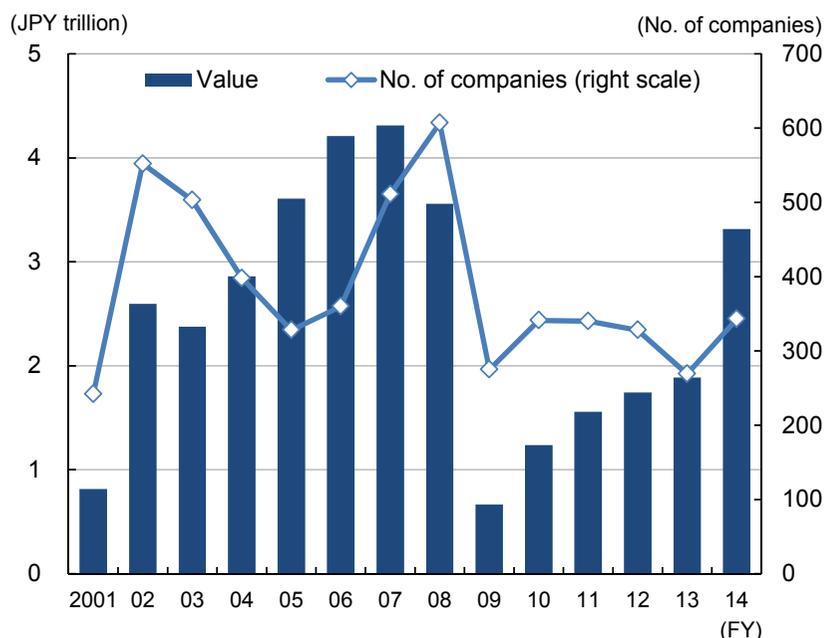
Background factors to the rise of China's stock market	
<b>Expectations toward economic support measures</b>	<ul style="list-style-type: none"> <li>• Implementation of monetary easing (interest rate cut, deposit reserve rate cut)</li> <li>• Comments suggesting economic support measures by high ranking officials such as Premier Li Keqiang</li> <li>• Announcement of plans regarding the "Silkroad Initiative", etc.</li> </ul>
<b>Expansion of margin trading</b>	<ul style="list-style-type: none"> <li>• Expansion of margin trading along with the easing of regulatory oversight on securities business</li> </ul>
<b>Others</b>	<ul style="list-style-type: none"> <li>• Prolonged real estate market adjustment</li> <li>• Sharp rise of domestic private investors</li> </ul>
China Securities Regulatory Commission	
<b>Tighter regulatory oversight upon margin trading</b>	<ul style="list-style-type: none"> <li>• On-site inspections on margin trading by securities companies</li> <li>• Administrative sanctions upon securities companies which have committed violations</li> </ul>
<b>Release of statement warning of the risks of stock investment</b>	<ul style="list-style-type: none"> <li>• Several times since the end of February</li> </ul>

Source: Made by MHRI.

## Japanese Stock Market: despite a pause, the improvement of earnings and corporate governance will serve to lift the market

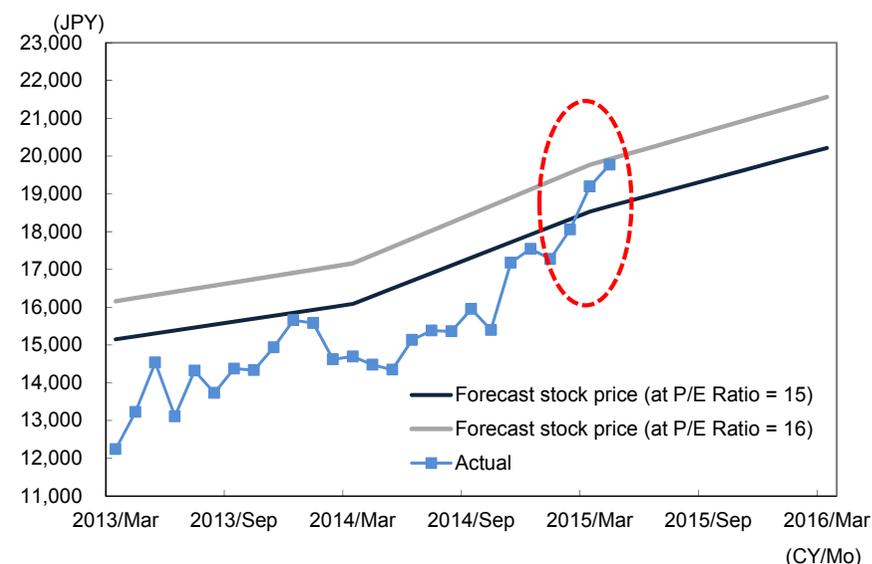
- In addition to expectations toward the improvement of earnings, the moves among Japanese corporations to upgrade their stockholder returns will also be viewed as a positive factor, and should keep the Japanese stock market on an upward path.
  - Listed companies are taking more steps to upgrade stockholder returns, such as company stock buybacks and increase of dividends, looking toward the application of the corporate governance code. The inflow of medium to long-term investment funds from overseas contributes to the stable rise of Japanese stocks.
  - While the pace of the stock market rise should pause in view of the fast pace of the uptrend over the short term, Japanese stocks are not perceived as overvalued on a global scale. This provides reasons to believe that the stock market will remain on an upward trend reflecting the improvement of earnings.

[ Share buybacks by listed companies (TSE 1<sup>st</sup> Section) ]



Note: "Value" refers to the value of common shares purchased.  
Source: Made by MHRI based upon INDB Funding Eye.

[ Nikkei 225 calculated from forecast EPS and actual values ]

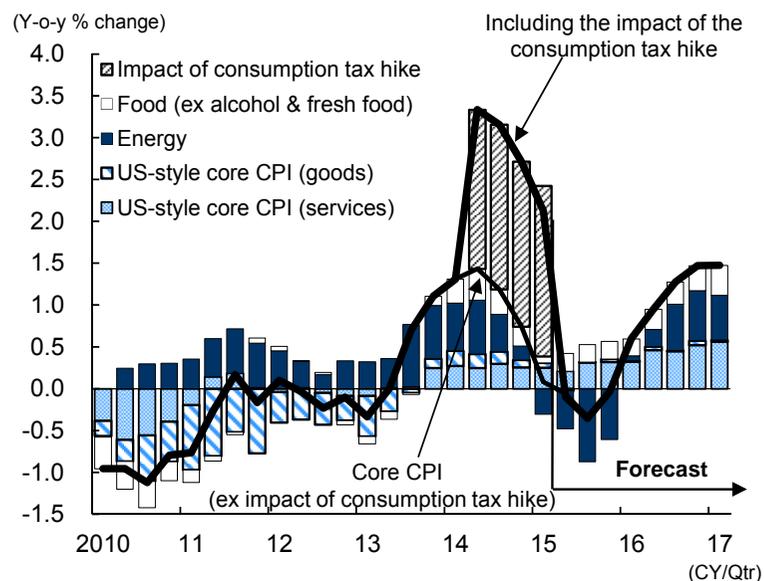


Notes: 1. The estimated Nikkei 225 is calculated from the 12-month forward forecast EPS for TOPIX. In the case of a NT multiple of 12.  
2. The data at the end of April 2015 is used for the 12-month forward forecast EPS.  
Sources: Made by MHRI based upon Datastream and Bloomberg.

### (3) Japan's price trends and monetary policy: inflation rate will rise after dipping below zero, falling short of the BOJ's outlook

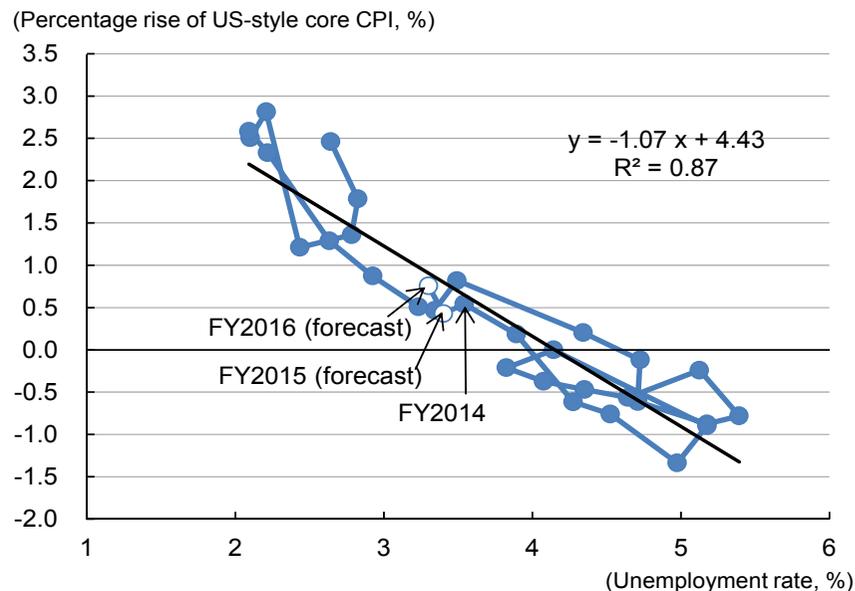
- ❑ The core CPI (y-o-y ch) will dip temporarily into negative territory. From then onward, it will start to rise and reach over 1%.
  - Given the fall of energy prices, the core CPI is predicted to fall below zero on a year-on-year (y-o-y) basis from the spring to fall of 2015. Japan's inflation rate should rise above 1% in the second half of the forecast period as energy prices start to rise amid a gradual rise of the underlying inflation rate.
  - However, inflation will likely fall short of the BOJ's outlook that the core inflation rate will reach around 2% "around the first half of FY2016" (core CPI forecast: FY2015 (0.0% y-o-y), FY2016 (+1.3% y-o-y)).
- ❑ Even though the inflation rate excluding the impact of energy prices etc. will gradually improve, it should stay slightly below 1% as of FY2016.

[ CPI (total, ex fresh food) ]



Note: The breakdown excludes the impact of the consumption tax hike.  
 The US-style core CPI is the CPI excluding energy and food (ex alcohol).  
 Source: Made by MHRI based upon Ministry of Internal Affairs and Communications, Consumer Price Index.

[ Unemployment rate and CPI (ex energy & food (ex alcohol) ]



Note: Fiscal year data from FY1985 onward. MHRI forecasts from FY2015 onward. The CPI in FY1997 and FY2014 excludes the impact of the consumption tax hike. The US-style core CPI is the CPI excluding energy and food (ex alcohol).  
 Sources: Made by MHRI based upon Ministry of Internal Affairs and Communications, Labor Force Survey, Consumer Price Index.

## Despite the BOJ's bullish outlook on the economy and prices, uncertainties regarding the achievement of the inflation target are still high

- ❑ In the Outlook for Economic Activity and Prices (the “Outlook Report”) released on April 30<sup>th</sup>, the BOJ set forth its view that the price target will be achieved in the first half of FY2016.
  - In view of the fall of crude oil prices and the slow recovery of personal consumption, the projected timing to reach the price stability target was delayed from ‘in or around FY2015’ to ‘around the first half of FY2016’. The BOJ maintained its bullish forecast without altering its view that the pace of price increase will accelerate in the second half of FY2015.
- ❑ There is considerable uncertainty regarding the achievement of the price target in the first half of FY2016. The BOJ may implement further monetary easing measures while keeping a close eye upon the underlying inflation rate.
  - However, the BOJ will likely take a conservative stance by weighing the positive and negative effects of further monetary easing measures. If it deems the increase of government bond purchases difficult, it may opt to purchase bonds with longer maturities while keeping the pace of purchases unchanged.

[ Outlook Report (April 2015) ]

	(Y-o-y % change)		
	Real GDP	CPI (all items less fresh food)	Excluding the effects of the consumption tax hikes
FY2014	-1.0 to -0.8 (-0.9)	+2.8	+0.8
Forecasts made in January 2015	-0.6 to -0.4 (-0.5)	+2.9 to +3.2 (+2.9)	+0.9 to +1.2 (+0.9)
FY2015	+1.5 to +2.1 (+2.0)	+0.2 to +1.2 (+0.8)	
Forecasts made in January 2015	+1.8 to +2.3 (+2.1)	+0.4 to +1.3 (+1.0)	
FY2016	+1.4 to +1.8 (+1.5)	+1.2 to +2.2 (+2.0)	
Forecasts made in January 2015	+1.5 to +1.7 (+1.6)	+1.5 to +2.3 (+2.2)	
FY2017	+0.1 to +0.5 (+0.2)	+2.7 to +3.4 (+3.2)	+1.4 to +2.1 (+1.9)

Note: Forecasts of the Majority of BOJ Policy Board Members. Figures in brackets indicate the median of the Policy Board Members' forecasts (point estimates).

Source: BOJ.

[ Risks to Prices ]

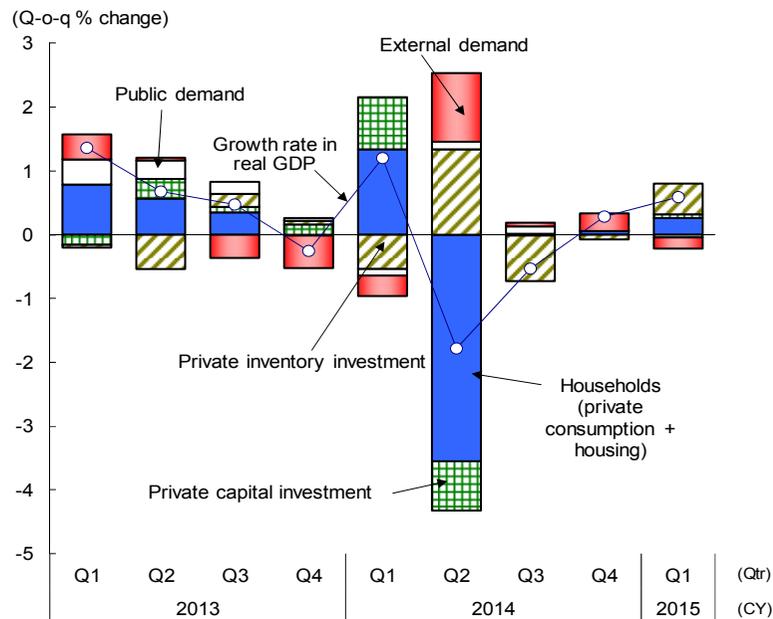
Risks	Details
(1) Developments in firms' and households' medium- to long-term inflation expectations	· The pace of increase in the inflation expectations is subject to uncertainty over developments in observed prices and the extent to which they will affect inflation expectations
(2) The responsiveness of inflation to the output gap	· There is a possibility that a rise in prices and wages will not progress smoothly should consumers mount strong resistance to an increase in sales prices or should firms be cautious with regard to raising wages
(3) Developments in the output gap (particularly in labor market conditions)	· There is an assumption that the recent increase in labor participation by the elderly and women and recent movements in firms to convert part-time employees into regular ones will continue to some extent, but uncertainty is associated with this assumption
(4) Developments in international commodity markets	· Developments in import prices, reflecting fluctuations in international commodity prices such as crude oil prices and foreign exchange rates, as well as the extent to which such development will spread to domestic prices

Source: Made by MHRI based upon BOJ materials.

## (4) The Japanese economy: expansion for the second quarter in a row. A gradual expansion despite lingering adjustment pressures

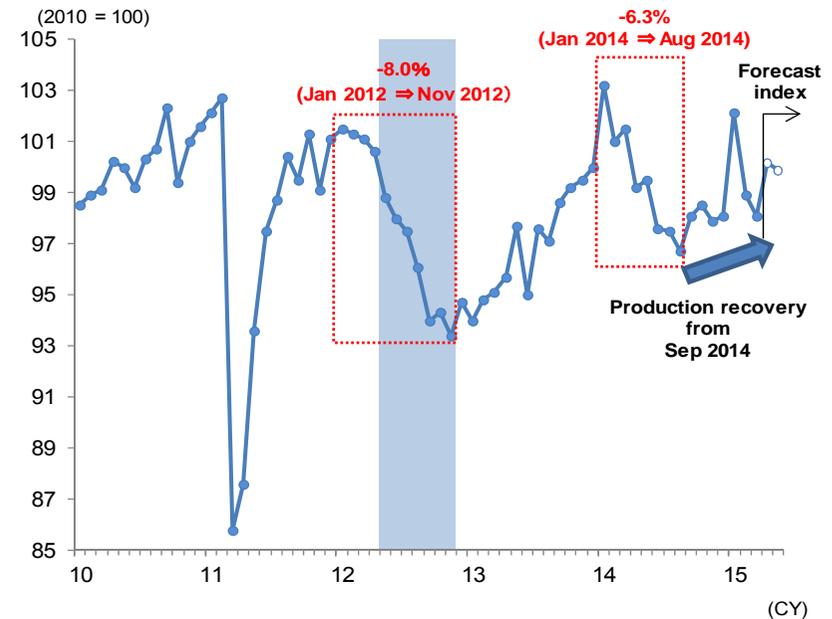
- Japan's real GDP grew +0.6% q-o-q (+2.4% p.a.) in Jan-Mar quarter of 2015, expanding for two quarters in a row.
  - Even though the rise of fuel imports pushed down the rate of GDP growth, personal consumption and exports kept the economy on recovery track. Capital investment also grew – albeit modestly – for the first time in four quarters.
  - However, note that inventory investment made up a large portion of quarterly growth, which may serve as adjustment pressures going forward.
- The *Indices of Industrial Production (IIP)* remained on recovery track. Even though the inventory adjustment of transport equipment and iron & steel may keep the *IIP* flat in the Apr-Jun quarter, a rebound is expected from then onward due to the recovery of both domestic and external demand.

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



Source: Made by MHRI based upon Cabinet Office, *National Accounts. SNA (National Accounts of Japan)*.

[ The Indices of Industrial Production ]



Note: The shaded area indicates a period of recession. The readings for April and May of 2015 are extended on the basis of the *Survey of Production Forecast*.

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

## Assessment of the “Triple Merits”: the trade balance is improving, and should ripple through to consumer spending and investment

- The following “Triple Merits” is estimated to lift the Japanese economy by approximately 1% in FY2015: (1) weak yen and stock market rise accompanying the additional monetary easing measures (QQE2) by the BOJ, (2) fiscal policy such as the emergency economic stimulus measures, and (3) sharp fall of crude oil prices.
  - As of the Jan-Mar quarter, the fall of crude oil prices has led to a dramatic improvement of the trade balance and decline of gasoline prices. Even though it has not yet lifted personal consumption and capital investment, the impact of lower crude oil prices should ripple through from the Apr-Jun quarter.

[ Impact of the “Triple Merits” (additional monetary easing, fiscal policy, lower crude oil prices) upon real GDP (simulation results) ]

	Boost to growth rate (%Pt)		Assessment of current conditions
	FY2014	FY2015	
Additional monetary easing (QQE2)	0.07	0.21	
Boost export volume via weaker yen	0.03	0.15	○ Exports are gradually picking up △ Price (in contract currency) of machinery exports are only reduced slightly
Boost personal consumption through rise of stock prices (wealth effect)	0.04	0.06	△ Despite the improvement of consumer sentiment, it has not led to a recovery in consumption
Fiscal policy (postponement of further tax hike, economic stimulus measures)	0.00	0.41	
Postponement of further consumption tax hike	0.00	0.18	• The economy will no longer be subject to the negative impact of a further tax hike
Measures for households (stimulus for consumer spending, housing market)	0.00	0.03	
Measures for businesses (subsidies for capital investment)	0.00	0.09	• The major part of the economic stimulus measures will be implemented from the Apr-Jun quarter
Public demand (government spending, public investment)	0.00	0.11	
Fall of crude oil prices	0.06	0.59	○ The trade balance has improved dramatically and gasoline prices have also come down ○ There are moves to cut export prices of chemicals (in contract currency) × The concentration of fuel imports in the Jan-Mar qtr served to push down real GDP (a temporary reactionary fall may ensue ) × It has failed to push up personal consumption and capital investment
<b>Total</b>	<b>0.13</b>	<b>1.21</b>	• The positive impact in FY2015 has fallen 0.07% pt from the previous <i>Economic Outlook</i> (in March) (due to the upward revision of the forecast on crude oil prices)

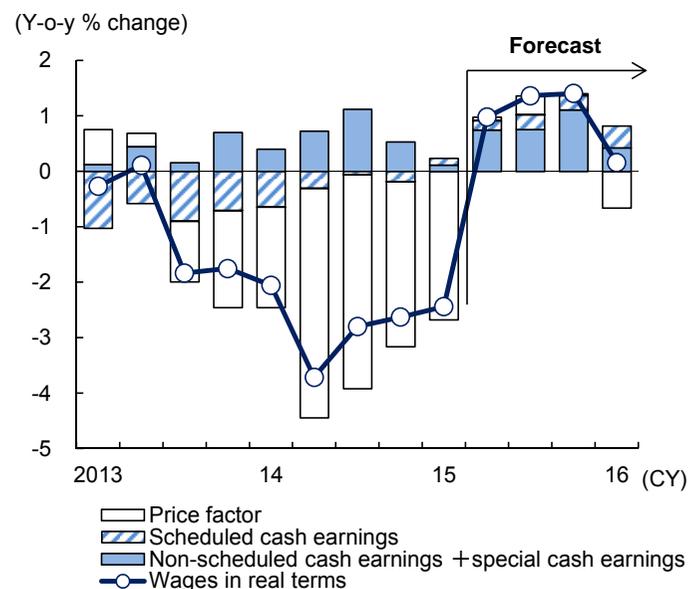
- Note: 1. The impact of additional monetary easing upon personal consumption only includes the wealth effect due to the rise of stock prices and does not include the impact through the improvement of consumer confidence. The impact of the postponement of a further tax hike are simulation results based upon the MHRI Macromodel.
2. 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 from MHRI's Economic Outlook in September 2014 accompanying additional monetary easing (approximately 10% weakening of the yen, approximately 10% rise of stock prices).
3. The impact of the fall of crude oil prices calculates the impact of the change of crude oil prices from the *Economic Outlook* in September 2014 based upon the MHRI Macromodel.

Source: Made by MHRI based upon various sources.

## Real wages rise for the first time in five years: pensions on a real-terms basis (adjusted for inflation) should also increase

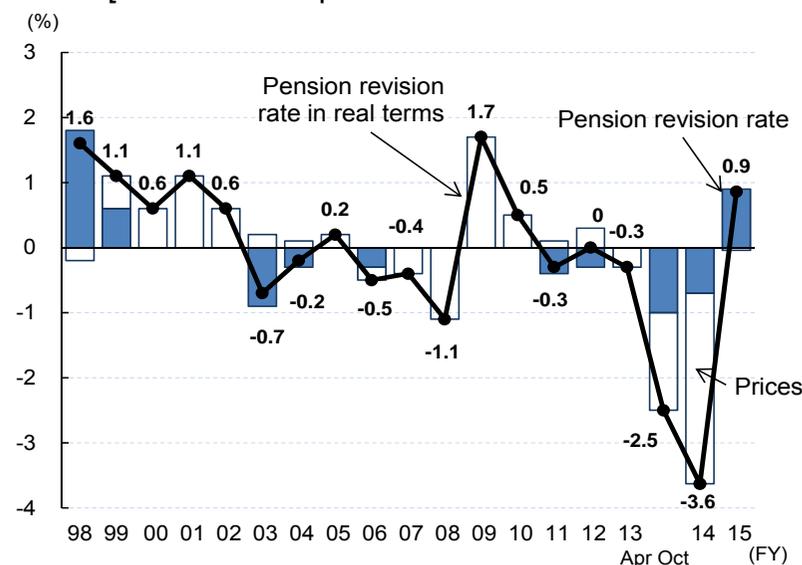
- ❑ Wages in real terms should increase on a year-on-year (y-o-y) basis from turn of the fiscal year in FY2015.
  - Given wage hikes due to the *shunto* wage negotiations, the rise of bonus payments and the fall of prices mainly of energy-related prices, wages in real terms (adjusted for inflation) should turn rise on a y-o-y basis for the first time in five years.
- ❑ The “revision rate of pensions in real terms” adjusted for inflation should rise for the first in five years in FY2015.
  - Reflecting the rise of prices in 2014, the pension revision rate should rise for the first time in 16 years since FY1999. During FY2015, the pension revision rate should rise even in real terms (adjusted for inflation) due to the slowdown of inflation.

[ Wages in real terms (forecast) ]



Note: The readings from the Apr-Jun 2015 onward are forecasts by MHRI.  
 Source: Made by MHRI based upon Ministry of Health, Labor and Welfare, *Monthly Labor Survey*.

[ Trends in the pension revision rate in real terms ]

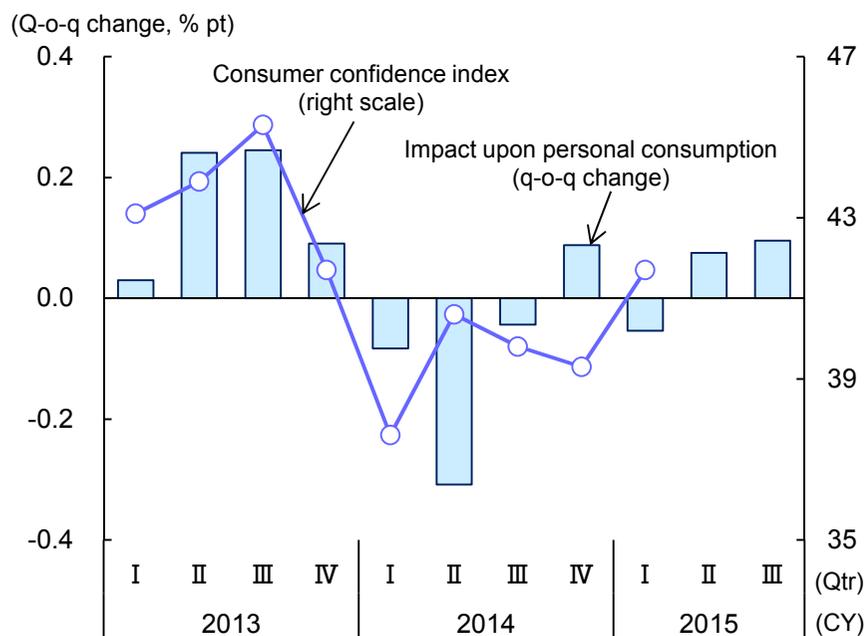


Notes: 1. Even though the pension revision rate was 0% in April in FY2013, the pension payment level was lowered by 1.0% in October 2013 as part of the elimination of the special pension level.  
 2. "Prices" are set forth as the y-o-y change of the relevant fiscal year. The readings for FY2013 are the readings for the Apr-Sep and Oct-Mar period. Readings for FY2015 are forecasts by MHRI.  
 Sources: Made by MHRI based upon Ministry of Health, Labor and Welfare, Ministry of Internal Affairs and Communications, *Consumer Price Index*.

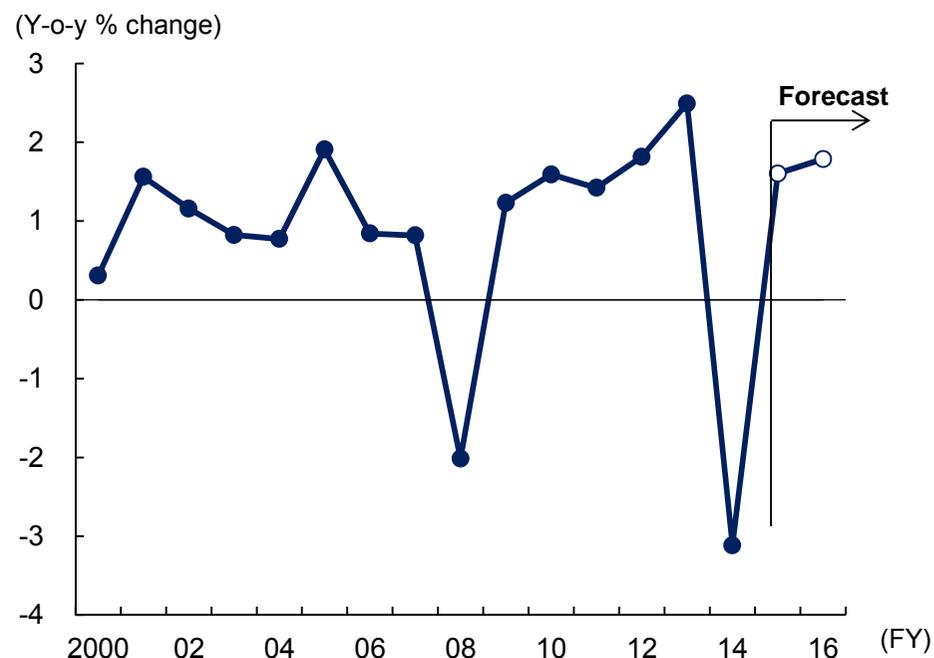
# Looking forward, the improvement of consumer confidence and real income should drive the recovery of consumer spending

- Looking forward, the improvement of consumer confidence will push up personal consumption.
  - Consumer confidence is improving. While the deterioration of consumer confidence served as downward pressures upon personal consumption in 2014, it should turn into a positive factor from the 2Q 2015.
  - From FY2015, personal consumption is forecast to follow a gradual recovery reflecting the improvement of real income and consumer confidence.

[ The impact of the change in consumer confidence upon personal consumption (q-o-q change) ]



[ Forecast on real personal consumption (y-o-y change) ]



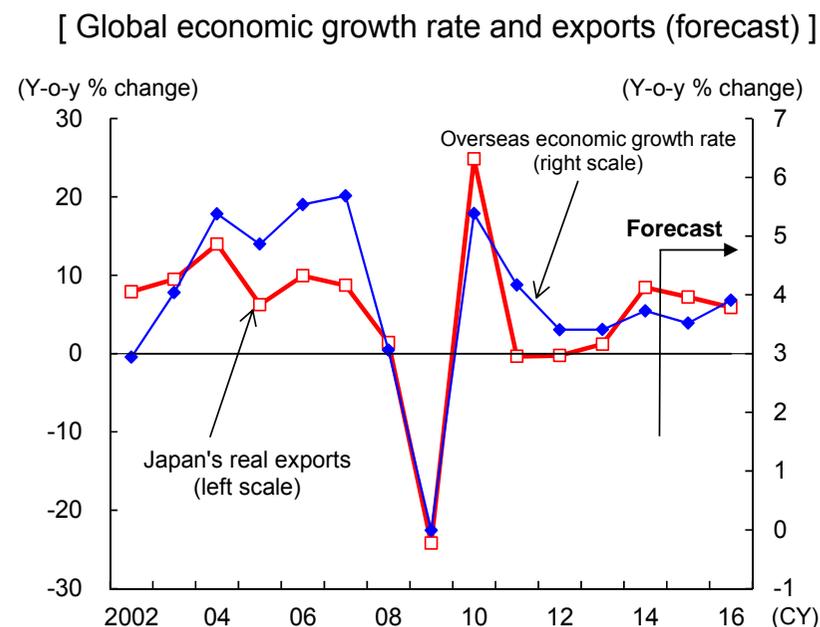
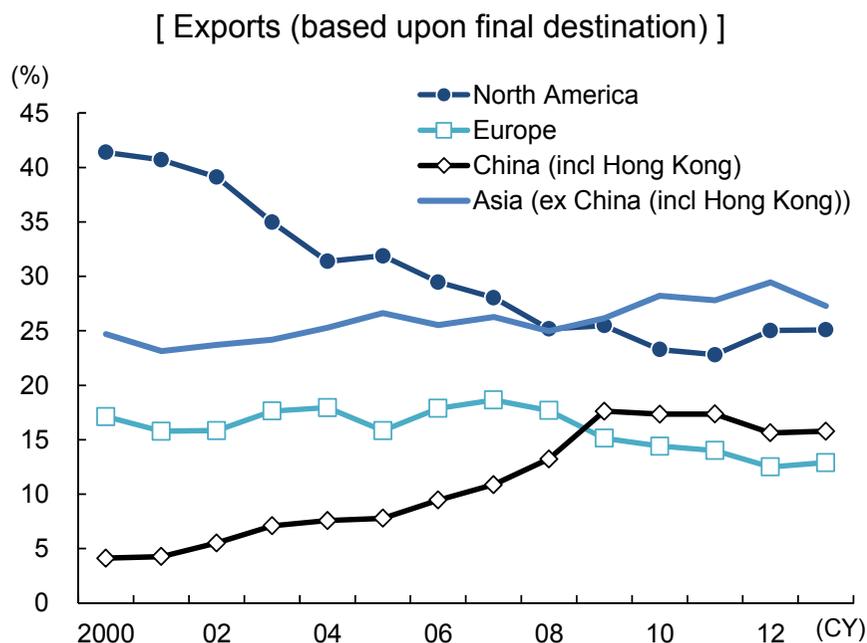
Note: Estimated by an error correction model (3-lag model) with personal consumption, disposal income and financial assets as endogenous variables and consumer confidence as the exogenous variable.

Sources: Made by MHRI based upon Cabinet Office, *National Accounts. SNA (National Accounts of Japan)*, *Consumer Confidence Survey*, Ministry of Internal Affairs and Communications, *Consumer Price Index*, Bank of Japan, *Flow of Funds*.

Source: Made by MHRI based upon Cabinet Office, *National Accounts. SNA (National Accounts of Japan)*.

## Exports should continue to follow an uptrend

- Exports are forecast to follow a gradual expansion mainly with respect to those bound for the US.
  - Although the rise of exports from the end of last year should come to a pause in the Apr-Jun quarter of 2015, exports to the US and Asia (ex China) should continue to follow an uptrend.



Notes: 1. Exports based upon final destination = customs clearance-based value of exports + (1) + (2) - (3) - (4)  
 (1) Sales of local subsidiaries in all areas to the respective regions (ex intra-region, local)  
 (2) Local sales of local subsidiaries in the respective regions  
 (3) Imports from Japan by local subsidiaries of the respective regions  
 (4) Value of input from third countries by local subsidiaries of the respective regions

Sources: Made by MHRI based upon Ministry of Finance, *Trade Statistics*, Ministry of Economy, Trade and Industry, *Basic (Trend) Survey of Overseas Business Activities*.

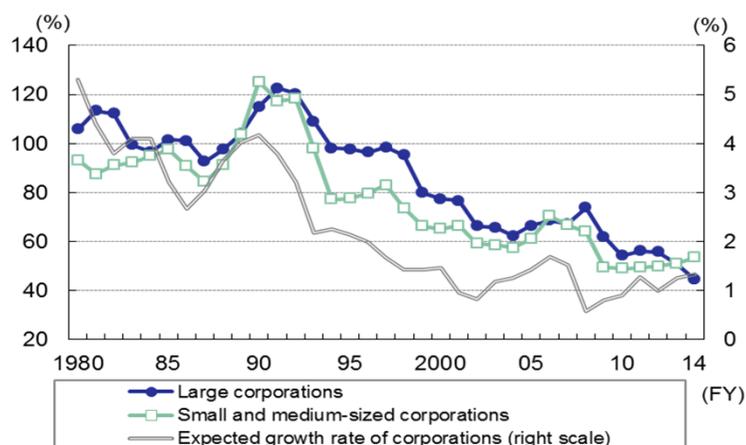
Note: "Overseas economic growth rate" refers to the rate of growth (calendar year) of the global economy (areas covered in MHRI's forecast) excluding Japan. Weighted by GDP share (PPP-based).

Source: Made by MHRI based upon releases by the IMF, Cabinet Office, and others.

## Capital investment should pick up along with the recovery of domestic and external demand

- ❑ Investment propensity among small and medium-sized corporations is recovering. Even though investment propensity among large corporations is still slumping, it should start to pick up along with the recovery of domestic and external demand.
- ❑ Capital investment projections for FY2015 and FY2016 have been revised slightly downward from MHRI's previous *Economic Outlook* (March), due mainly to a lower carry-over because of a slower-than-expected pace of growth in the Jan-Mar quarter of 2015 and upward revision of the price of crude oil.
  - Capital investment in real terms are forecast as follows: FY2015 +2.9% (previous outlook +3.2%), FY2016 +3.2% (previous outlook +3.3%). The target for nominal capital investment in the Growth Strategy (JPY70 trillion) should be reached in the first half of FY2015.

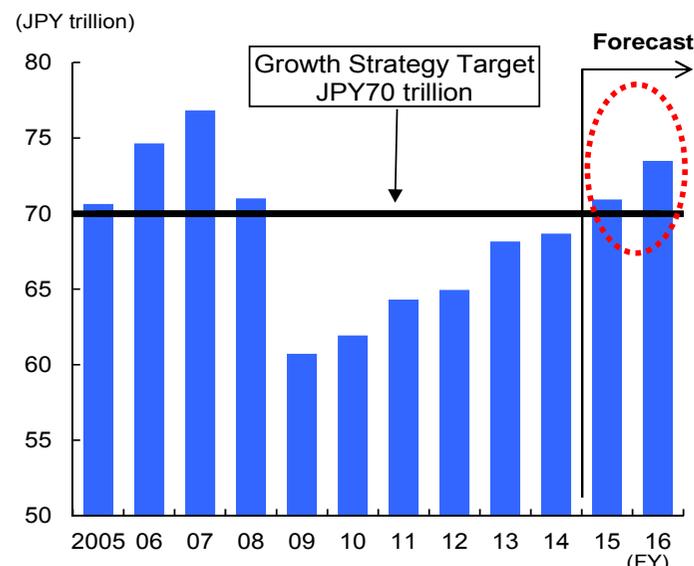
[Trends in investment propensity (by size of corporations) ]



- Notes: 1. "Large corporations" refer to corporations with capital of JPY1 billion or over, "small and medium-sized corporations" refer to corporations with capital less than JPY1 billion. All industries (ex finance and insurance).
2. "Investment propensity" = capital investment/operating cash flow  
 "Operating cash flow" = operating profit × 0.6 + depreciation cost
3. "Capital investment" refers to new investments of tangible fixed assets (excludes land-purchasing costs and includes costs for land leveling and land preparation). FY2014 is calculated on the basis of the cumulated amount from the Apr-Jun quarter to the Oct-Dec quarter.
4. The expected rate of growth of corporations refers to the forecast on the rate of growth (in real terms) of industry demand over the next five years.

Source: Made by MHRI based upon Ministry of Finance, *Financial Statements Statistics of Corporations by Industry*, Cabinet Office, *Annual Survey of Corporate Behavior*.

[ Nominal capital investment (forecast) ]



Source: Made by MHRI based upon Cabinet Office, *National Accounts*, *SNA (National Accounts of Japan)*, and others.

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