

REVISED
to reflect the
2nd QE for the
Apr-Jun Qtr
of 2015

FY2015, FY2016 Economic Outlook

- Another downward revision due to negative spillover of China risks -

September 8, 2015

Mizuho Research Institute

Key points of the downward revision

- ❑ We have revised downward our outlook on the global economy in 2015 and 2016 in view of the weakness of the Chinese economy and its negative spillover to other countries through trade.
- ❑ On China, we have revised down our outlook on China's economic growth to reflect the slackening of production activity and the slowdown of commodity-producing economies. Business sentiment is falling below the rate of economic growth. Despite expectations toward China's economic stimulus measures, note that downside risks still linger.
- ❑ Concerns regarding China risks have led to a worldwide stock market plunge. Should the global financial market turmoil persist, it could lead to a further global economic downturn due to the deterioration of confidence. Note the rise of concerns triggered by the emerging market economies.
- ❑ The odds are high that the US interest rate hike will be delayed until December. The ECB is indicating the possibility of further monetary easing.
- ❑ As for the Japanese economy, we have revised down our outlook on economic growth in FY2015 and FY2016 mainly with respect to exports due to the revision on our outlook on the overseas economies. While we still maintain our view that the economy will return to a recovery track, risks of another downturn still linger.
- ❑ Our outlook on Japan's consumer prices has been revised upward for FY2015 due to the rise of food prices, and revised downward for FY2016 to reflect the revision of our forex and crude oil price outlooks. The possibility of further monetary easing by the Bank of Japan (BOJ) are rising due to the downturn of sentiment.

Overview – the global economy is slowing down keep a close eye upon the Chinese economy and US interest rate hike

- ❑ We expect the global economy (the weighted average of countries and regions included in MHRI's forecast) to slow in 2015 (+3.1%) from the year before (2014: +3.4%). In 2016, the pace of global economic growth should rise to +3.5%, due to the continuation of a mild expansion among the developed economies and the alleviation of downward pressures upon commodity-producing economies stemming from the fall of crude oil prices.
- ❑ Despite a temporary slowdown of the US economy, it should pick up and grow around the upper half of the +2%-level. Even though the Japanese economy also dipped into negative growth, it should follow a gradual recovery track given the benefits of a weaker yen and low crude oil prices, and the last-minute rush of demand prior to the consumption tax hike. The eurozone economy should continue to follow a gradual expansion supported by monetary easing and low crude oil prices.
- ❑ The emerging market economies will continue to lack power as an engine of global economic growth. In addition to the ongoing slowdown of the Chinese economy, the pace of economic growth of Russia and Brazil will dip into negative territory.
- ❑ Although our main scenario outlook is a gradual recovery of the global economy, it will be necessary to pay attention to the negative spillover of China's economic downturn. In addition to China, note also that the rise of concerns triggered by the emerging market economies may lead to the rise of financial market volatility. Furthermore, it will be necessary to keep a close eye upon the possibility that eurozone political issues and geopolitical risks may lead to financial market turmoil and global economic slowdown.

Global economic outlook revised downward for both 2015 and 2016

- Our outlook on the rate of economic growth in the forecast area in the chart below has been revised downward from our *Economic Outlook* in August. We maintain our outlook on a recovery in 2016 subsequent to a slowdown in 2015.
 - 2015: although we have made an upward revision of our outlook on the US economy, we have revised down sharply our outlook on the emerging market economies reflecting the weakness of China's private-sector demand and the fall of commodity prices.
 - 2016: we have revised down our outlooks on both the advanced and emerging market economies in consideration of the impact of China's economic slowdown upon exports of other countries.

[Outlook on the global economy]

Calendar year	(Y-o-y % change)				(Y-o-y % change)		(% point)		(% point)	
	2013 (Actual)	2014 (Actual)	2015 (Forecast)	2016 (Forecast)	2015 (August forecast)	2016	2015 (breadth of revision from August)	2016	2015 (breadth of revision from June)	2016
Total of forecast area	3.3	3.4	3.1	3.5	3.2	3.6	-0.1	-0.1	-0.2	-0.3
Japan, US, Eurozone	0.8	1.5	1.8	2.0	1.7	2.1	0.1	-0.1	-0.0	-0.2
US	1.5	2.4	2.5	2.5	2.3	2.6	0.2	-0.1	0.1	-0.3
Eurozone	-0.3	0.9	1.3	1.5	1.3	1.6	—	-0.1	-0.0	-0.1
Japan	1.6	-0.1	0.7	1.6	0.7	1.7	—	-0.1	-0.4	-0.4
Asia	6.4	6.4	6.1	6.0	6.2	6.2	-0.1	-0.2	-0.2	-0.2
China	7.7	7.3	6.9	6.6	7.0	6.7	-0.1	-0.1	-0.1	-0.1
NIEs	2.9	3.3	2.0	2.4	2.2	2.7	-0.2	-0.3	-0.9	-0.6
ASEAN5	5.1	4.6	4.4	4.3	4.5	4.5	-0.1	-0.2	-0.4	-0.5
India	6.4	7.1	7.4	7.7	7.5	7.8	-0.1	-0.1	-0.1	-0.1
Australia	2.0	2.7	2.2	2.5	2.3	2.6	-0.1	-0.1	-0.1	-0.1
Brazil	2.7	0.1	-2.5	-0.8	-2.0	-0.5	-0.5	-0.3	-1.3	-1.6
Russia	1.3	0.6	-4.1	0.1	-4.0	0.3	-0.1	-0.2	-0.1	-0.4
Japan (FY)	2.1	-0.9	1.1	1.9	1.2	2.0	-0.1	-0.1	-0.7	-0.1
Crude oil price (WTI, USD/bbl)	98	93	51	54	51	58	0	-4	-7	-13

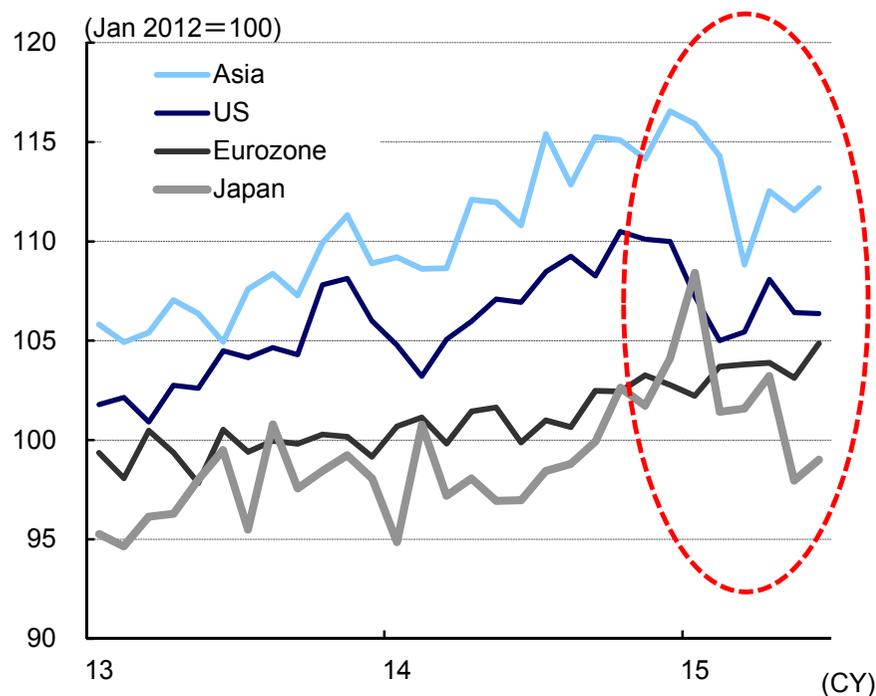
Note: The total of the forecast area is calculated upon the 2012 GDP share (PPP) by the IMF.

Sources: Made by Mizuho Research Institute Ltd. (MHRI) based upon releases by the International Monetary Fund (IMF) and statistics of relevant countries and regions.

Global trade is shrinking amid the slowdown of the Chinese economy

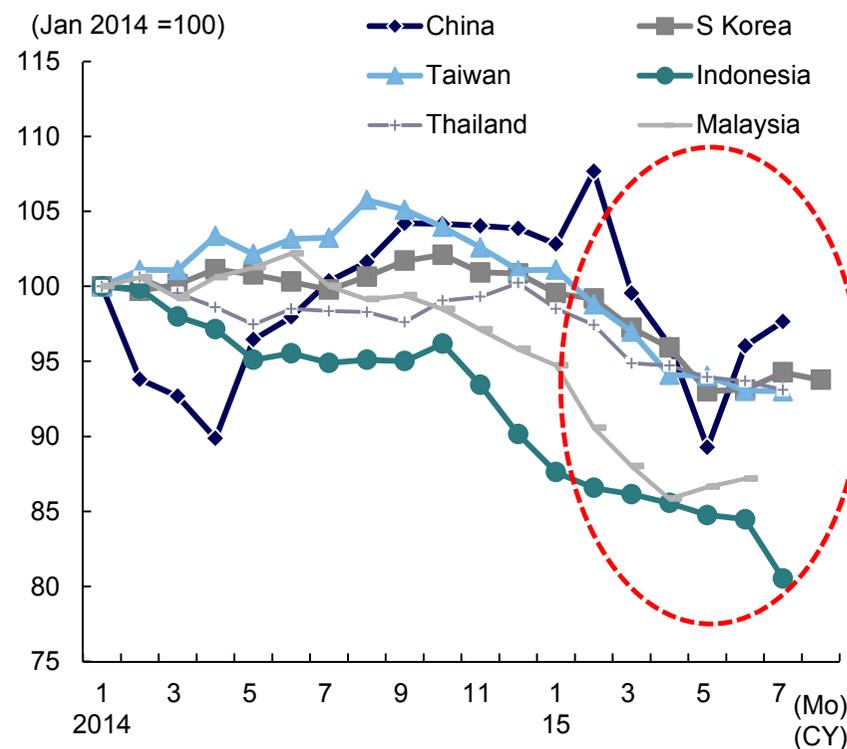
- Exports of the countries and regions in our outlook have generally softened since the start of this year, against a backdrop of the US economic downturn and China's economic slowdown.
 - In particular, the exports of Asian countries are following a downtrend due to their vulnerability to the Chinese economy.

[Export Volume Index by region]



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

[Value of exports of the countries of Asia]



Note: 3mma of data adjusted for seasonal factors by MHRI.

Source: Made by MHRI based upon statistics of relevant countries and regions, CEIC Data.

A paradigm shift from the past decade may spark the rise of uncertainties

- The emerging market and commodity-producing economies slowed down in the Apr-Jun quarter.
 - In Asia, Taiwan and Singapore dipped into negative growth. The economies of Canada, Brazil and Russia have entered a recession with their contraction for the second quarter in a row.
 - The composite PMI of the emerging market economies as a whole dipped below 50, indicating the intensification of sentiment on an economic slowdown.
 - The current juncture marks a paradigm shift from the past decade in which the adjustment among advanced economies was lifted by the emerging market economies. At this juncture, uncertainties may rise toward the shift to “a mild recovery of the advanced economies and adjustment of the emerging market economies”.

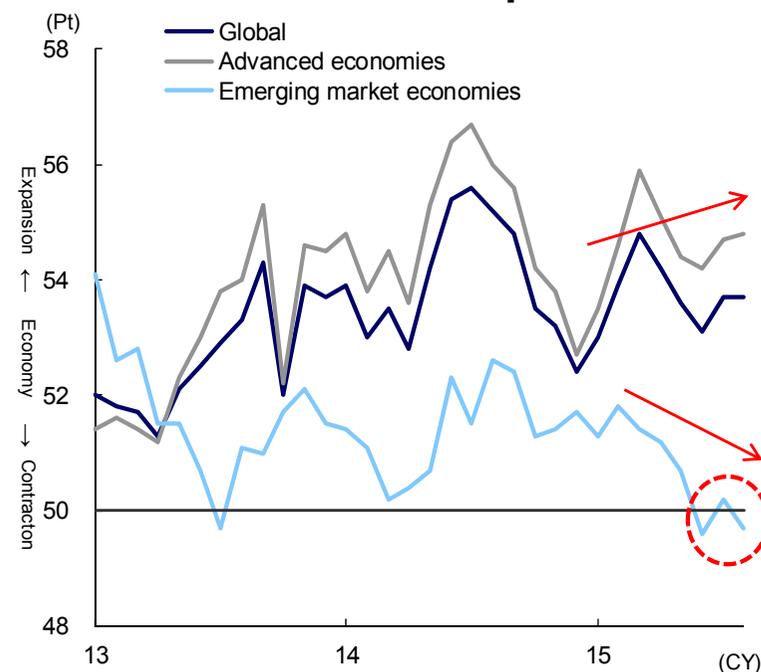
[Economic growth of emerging market & commodity-producing economies]

	(Q-o-q% change, p.a.)					
	2014				2015	
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
South Korea	4.4	2.0	3.2	1.1	3.3	1.2
Taiwan	1.7	2.9	6.1	1.9	2.3	-6.6
Hong Kong	2.6	-0.0	5.9	1.0	3.0	1.6
Singapore	1.8	-0.5	2.6	4.9	4.1	-4.0
Thailand	-3.0	2.6	4.0	4.4	1.4	1.5
Malaysia	5.5	6.7	3.3	7.3	4.7	4.5
Philippines	7.4	7.1	2.1	10.2	1.6	7.6
Australia	3.6	2.5	1.5	2.2	3.6	0.7
Canada	1.0	3.4	3.2	2.2	-0.8	-0.5
Brazil	2.7	-4.4	0.4	0.2	-2.9	-7.2

	(Y-o-y % change)					
China	7.4	7.5	7.3	7.3	7.0	7.0
Indonesia	5.1	5.0	4.9	5.0	4.7	4.7
Vietnam	5.1	5.3	6.1	7.0	6.1	6.4
India	6.7	6.7	8.4	6.6	7.5	7.0
Russia	0.6	0.7	0.9	0.4	-2.2	-4.6

Sources: Made by MHRI based upon Datastream, CEIC, statistics of relevant countries and regions.

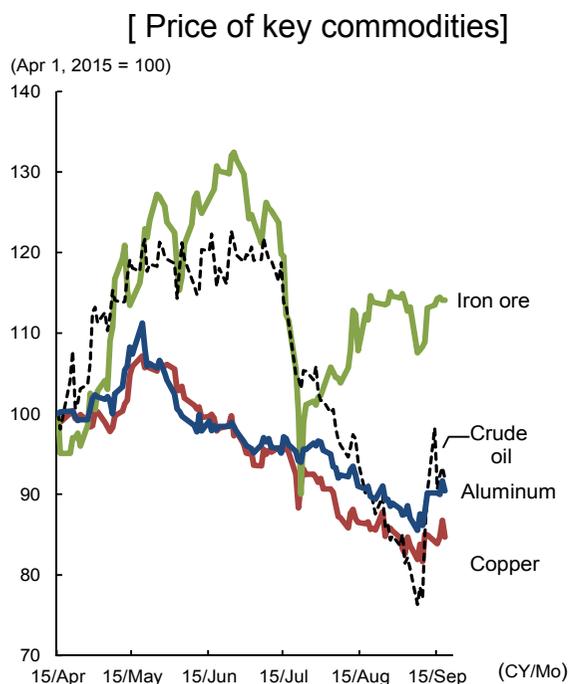
[Composite PMI of advanced and emerging market economies]



Source: Made by MHRI based upon Markit.

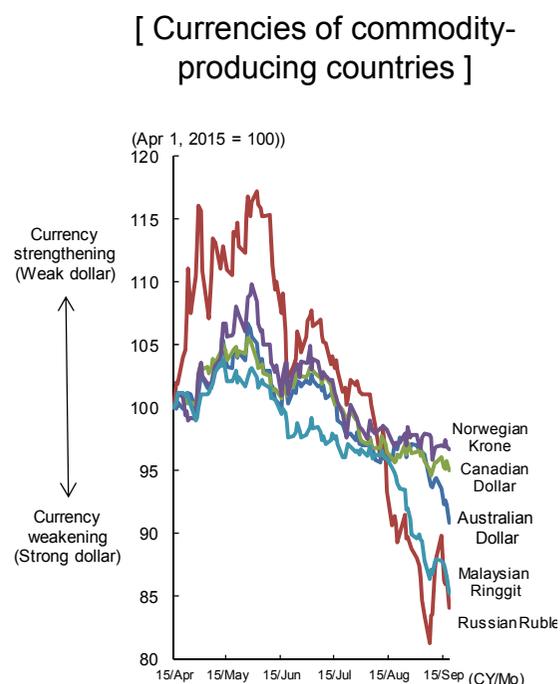
Keep a close eye upon further downside risks regarding the emerging market and commodity-producing economies

- China's economic slowdown and US interest rate hike may lead to further downside risks of the emerging market and commodity-producing economies.
 - Commodity prices overall are falling, reflecting speculation on the fall of demand stemming from China's economic slowdown.
 - Currencies of the emerging market and commodity-producing economies are weakening against a backdrop of speculation on the US interest rate hike, devaluation of the renminbi and fall of commodity markets.
 - Even though a weak currency may support exports, excessive currency weakening would have a negative effect upon the economy in ways such as increasing debt burdens and raising inflationary pressures.
- Although the G20 Communique vowed to “refrain from competitive devaluations”, its implementation is uncertain.

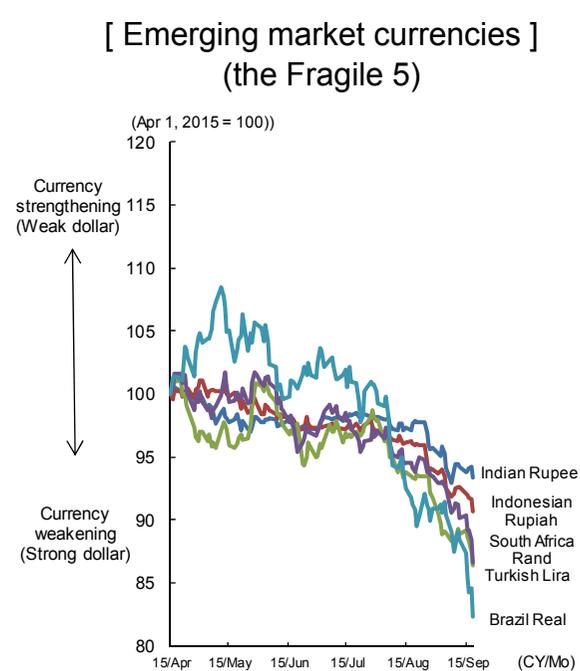


Note: Crude oil (WTI), copper & aluminum (LME 3-mo forward, iron ore (China's import price)

Source: Made by MHRI based upon



Source: Made by MHRI based upon Bloomberg.

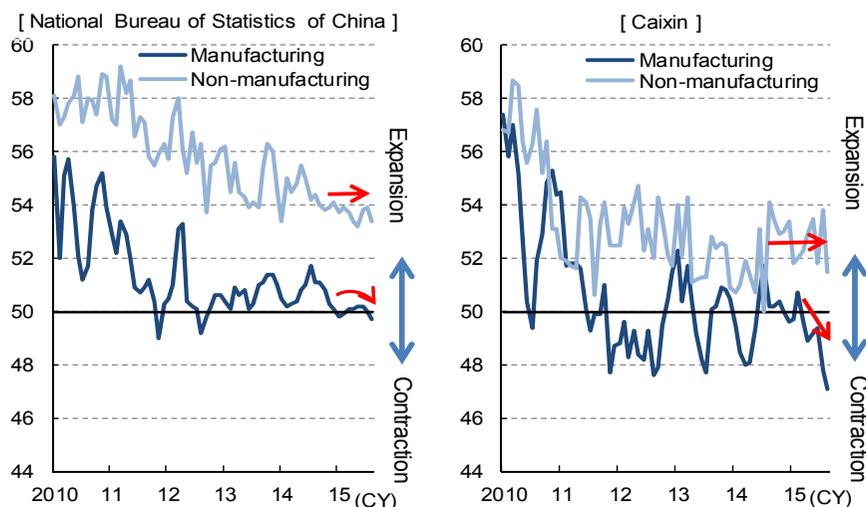


Source: Made by MHRI based upon Bloomberg.

China: downward revision of growth reflecting the slackening of production activity and slowdown of commodity-producing economies

- We have revised down our outlook on the Chinese economy (2015: +6.9%, 2016: +6.6%), reflecting the current softening of production activity and slowdown of the commodity-producing economies. Business sentiment is falling short of the rate of economic growth.
 - In contrast to the strength of business conditions in the non-manufacturing sector, there has been a significant deterioration among manufacturers.
 - The manufacturing PMI in August fell for the second month in a row in both the official PMI of the National Bureau of Statistics of China and the Caixin PMI. The Caixin PMI (47.1) fell to the lowest level in approximately 6.5 years.
 - The weakness of commodity-producing economies reflecting the further fall of commodity prices such as crude oil should serve as a drag upon exports.
 - China's exports to crude oil-producing and commodity-producing countries make up approximately 20% of overall exports. In particular, a large portion is made up of exports to Russia and Brazil.

[Manufacturing and Non-manufacturing PMI]



Notes: 1. The effect of seasonal factors such as the Lunar New Year is not entirely eliminated.

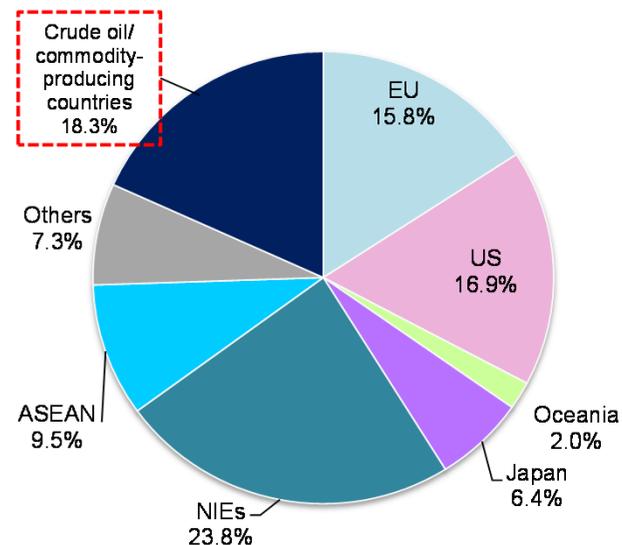
2. No. of samples are as follows:

National Bureau of Statistics: manufacturing (3,000), non-manufacturing (4,000)

Caixin: manufacturing (420), non-manufacturing (over 400)

Sources: Made by MHRI based upon National Bureau of Statistics of China, Wind.

[Breakdown of exports (2014)]



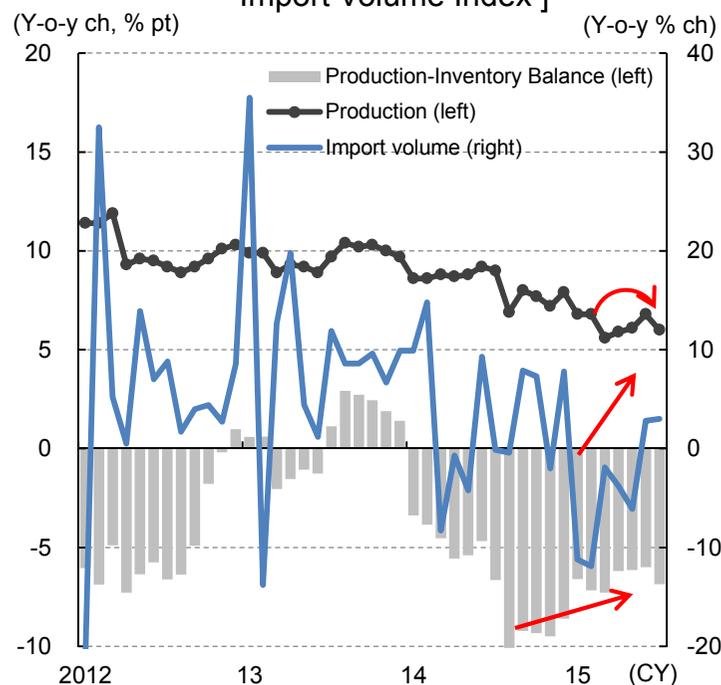
Note: "Crude oil/commodity-producing countries" refer to 109 countries based upon classification by the IMF. Singapore is excluded from "ASEAN"

Sources: Made by MHRI based upon Administration of Customs of the People's Republic of China, CEIC Data.

China: slow recovery of production due mainly to the softness of the materials industry

- Industrial production activity has been following a gradual recovery from early spring in 2015.
 - From around mid-2014, the production-inventory balance has been improving –albeit at a slow pace. Imports are also picking up from the start of 2015.
- Even so, the recovery of production is slow, as shown by the current downturn. This stems primarily from the slow recovery of certain industries such as the materials industry.
 - The production-inventory balance deteriorated again in July, reflecting the slow ripple effect of investments on infrastructure.

[The Production-Inventory Balance and Import Volume Index]



Notes: 1. "Production-Inventory Balance" = (y-o-y production) minus (y-o-y inventory)
 2. Inventories converted into real terms by the production shipments price index.
 Sources: Made by MHRI based upon National Bureau of Statistics of China, Administration of Customs of the People's Republic of China, CEIC Data.

[The Production-Inventory Balance (by industrial sector)]

		14/Q1	14/Q2	14/Q3	14/Q4	15/Q1	15/Q2	2015/Jul/15
Total industry		-3.9	-5.2	-8.7	-9.1	-7.0	-6.1	-6.9
Materials	Petroleum & coal	-20.1	-8.7	-15.6	-12.4	-6.4	4.5	-2.5
	Iron & steel	-8.4	-3.1	-10.1	-8.9	-5.7	-7.9	-14.1
	Non-ferrous metals	5.3	8.2	4.2	-0.1	-1.0	-3.0	-6.5
	Nonmetal	-1.2	-5.4	-6.7	-6.7	-6.0	-7.1	-4.9
	Chemicals	-0.7	-2.2	-4.1	-7.3	-4.6	-3.2	-4.5
Light industry	Processing of food from agricultural products	-5.9	-10.7	-12.3	-8.7	4.5	9.8	7.8
	Manufacture of foods	3.2	-2.6	-7.3	-6.6	-6.1	-1.5	2.0
	Textiles	-3.4	-5.3	-5.7	-2.2	1.1	3.0	3.7
Machinery	General machinery	-1.0	-6.3	-6.6	-8.3	-6.5	-3.6	-2.6
	Transport equipment	-2.6	-2.6	-12.9	-12.1	-7.9	-11.4	-2.5
	Electrical machinery	-0.9	-4.4	-5.3	-6.5	-1.9	-3.0	-1.8
	Communication equipment, computers and other electronic equipment	4.5	-10.9	-16.3	-15.1	-17.8	-20.5	-21.0

Notes: 1. "Production-Inventory Balance" = (y-o-y production) minus (y-o-y inventory)
 2. Inventories converted into real terms by the production shipments price index.
 3. The sectors enclosed by the broken red line are those which have deteriorated in July from the Apr-Jun quarter of 2015.

Sources: Made by MHRI based upon National Bureau of Statistics of China, CEIC Data.

China: despite expectations toward the positive effect of policy measures, the risks of a loss of momentum still linger

- ❑ The risks of a loss of momentum linger due to mistrust toward the government's policy response.
- ❑ China stepped up its fiscal and monetary policy measures (expansion of investment, interest rate cut, reserve requirement ratio cut) to prop up the economy by the Oct-Dec quarter.
 - China is forecast to step up its economic stimulus measures in view of the agreement at the G20 to promote reforms and avoid competitive currency devaluations.
 - In the second half of 2016, the fading impact of infrastructure investment will lead to a further slowdown of the economy.
 - Note also that there is the risk that the impact of infrastructure investment might take time to ripple through due to funding difficulties. In contrast to market calls for massive economic stimulus measures, it entails the risk of causing a further fall of economic conditions and market crash through misgivings due to the failure of communications with the market.

[Current state and outlook on fiscal and monetary policy measures]

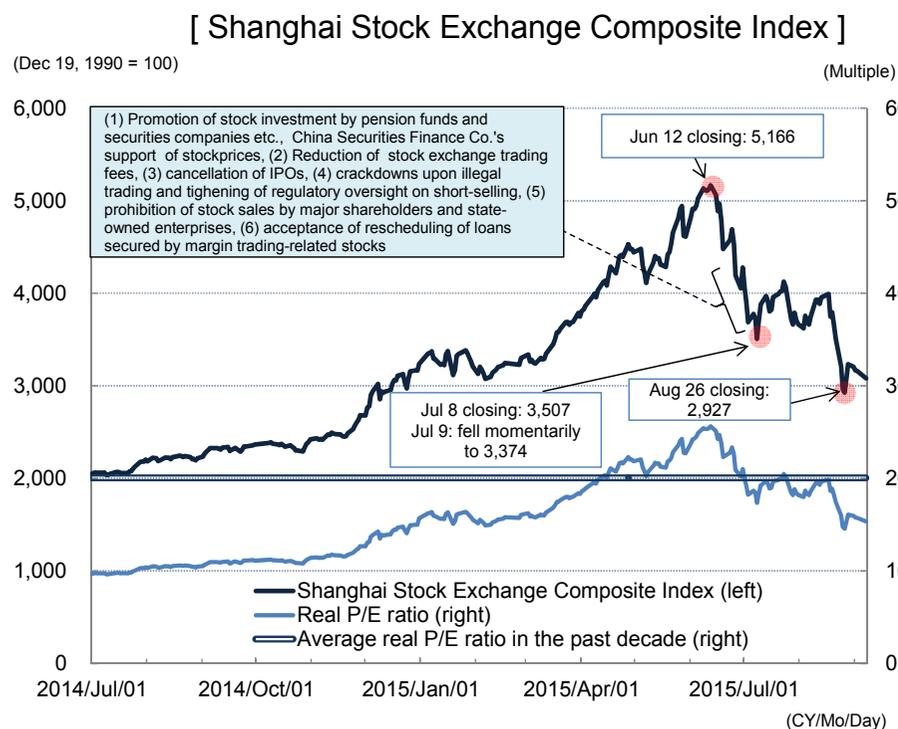
		Measures announced thus far	Policy guidance and possible future measures	
Fiscal measures	Infrastructure investment plans	<ul style="list-style-type: none"> • Action Plan on joint construction for the "One Belt, One Road" strategy • Yangtze River Urban Agglomeration plan • Local investment projections approved by the National Development and Reform Commission • 4 major infrastructure projects (urban rail project, logistics, etc.) • Urban underground pipeline construction 	<ul style="list-style-type: none"> • China Railway Corporation cargo railway construction plan (of the RMB800 bil planned for the full year, construction worth RMB534.9 bil is not yet implemented) • Beijing-Tianjin-Hebei area transportation network development plan (RMB400 bil in 2015-16) • Infrastructure investment for regional development of northeast region and Tibet etc. • Front-loading of investment projects scheduled for FY2016 	
	Measures to support funding	Fiscal funds	<ul style="list-style-type: none"> • Fiscal deficit of 2.3% of GDP (FY2015 budget) • Secure RMB2 tril issuance facility for local government refinancing bonds by the end of June • Addition of RBM1.2 tril facility for refinancing bonds (announced on Aug 27th) 	<ul style="list-style-type: none"> • The Vice Finance Minister indicated the possibility of the expansion of the fiscal deficit (end of June)
		Others	<ul style="list-style-type: none"> • Easing of lending restrictions toward Local Government Financing Vehicles • Easing of issuance terms of bonds for key projects • Recovery and use of surplus fiscal funds • Introduction and promotion of PPP • Recapitalization of policy-based financing institutions 	<ul style="list-style-type: none"> • Issuance of finance bonds by policy-based financing institutions (RMB300 bil) • Issuance of special purpose bonds for railway construction • Acceleration of PPPs through the establishment of PPP funds
Monetary policy	Interest rate cut	<ul style="list-style-type: none"> • Total of 4 times up to July (including Nov 2014) • Another rate cut on Aug 26th (announced on Aug 25th) 	<ul style="list-style-type: none"> • Further rate cuts are possible (however, only around 1 time by the end of the year) 	
	Reserve requirement ratio cut	<ul style="list-style-type: none"> • A total of 3 times up to July (including rate cuts in specific areas) • Another rate cut on Sep 6th (announced on Aug 25th) 	<ul style="list-style-type: none"> • Further rate cuts are possible (around 2 or 3 times by the end of the year) 	
	Other facilities for liquidity supply	<ul style="list-style-type: none"> • Open market operations • Short-term Liquidity Operations (SLO) • Standing Lending Facility (SLF) • Medium-term Lending Facility (MLF) • Pledged Supplementary Lending (PSL) 	<ul style="list-style-type: none"> • Liquidity provision will continue toward the overall/or certain parts of the industrial sector 	

Note: As of September 7, 2015.

Sources: Made by MHRI based upon various sources.

China: lingering risks of a stock market crash

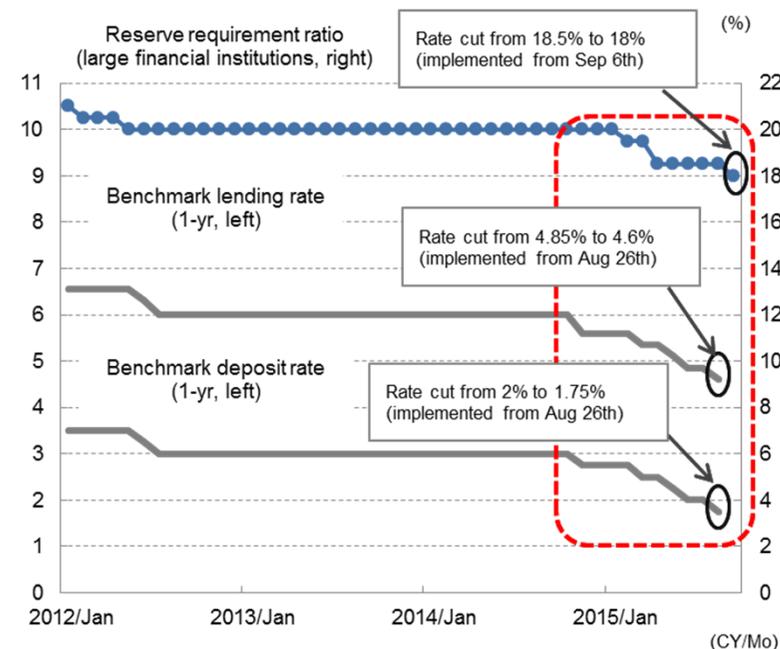
- ❑ The risks of yet another stock market crash still linger. The rise of speculation on the scale-down of market support measures may trigger the crash.
 - In fact, the rise of such speculation led to a stock market plunge toward the end of August. At one point, the stock market fell below 3,000 for the first time since the end of 2014.
- ❑ More interest rate and reserve requirement ratio cuts may be implemented in a bid to avoid a further economic downturn and to address the market's call for stability.
 - The People's Bank of China (PBOC) announced the simultaneous cuts of the benchmark lending/deposit rates and the reserve requirement ratio.



Note: As of September 7, 2015.

Source: Made by MHRI based upon Bloomberg and various other sources.

[Benchmark lending, deposit rates and reserve requirement ratio]

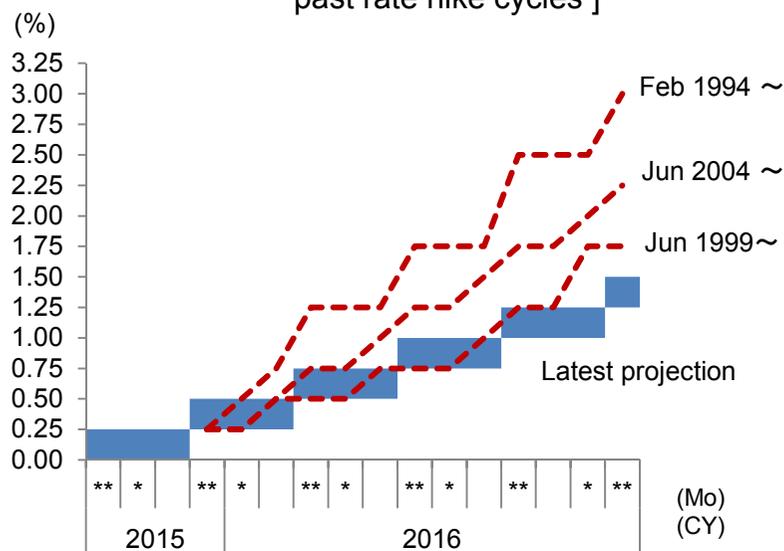


Sources: Made by MHRI based upon the People's Bank of China, CEIC Data.

US: the commencement of interest rate hike will likely be delayed until December. That is, depending upon US economic indicators and the Chinese economy

- The odds are high that the timing of the US interest rate hike will be delayed until December in order to ascertain whether the impact of the global financial developments - which have switched into risk-off mode - upon the US economy would be limited.
 - William Dudley, President of the New York Federal Reserve, commented that a September rate hike is looking less compelling (August 26th).
 - Meanwhile, US economic indicators are currently solid. The rate hike may be implemented earlier than our forecast in the event the market stabilizes and US economic indicators remain strong (offsetting the shock).
- Market stabilization will depend upon China, making it important to watch its policy response and economic indicators.
- Federal Reserve officials did not rule out the possibility of the commencement of interest rate hikes in September at the Jackson Hole conference.

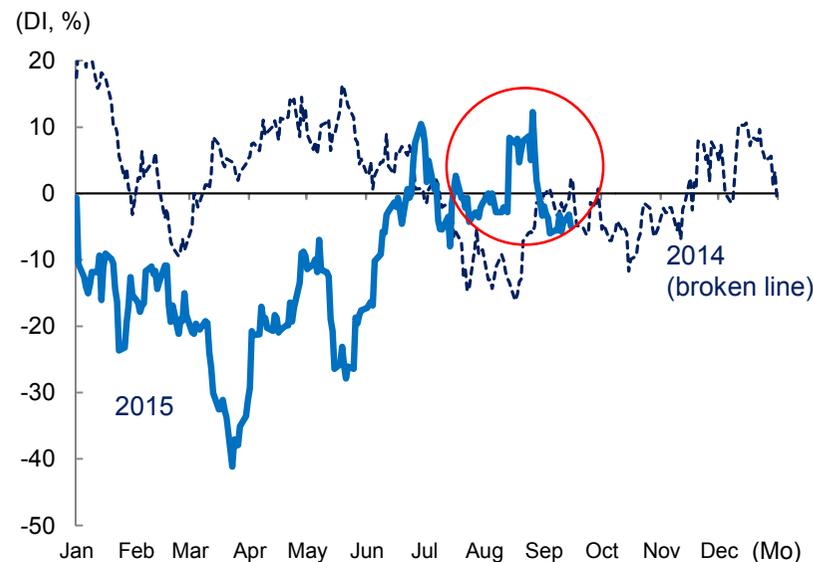
[Forecast on the federal funds rate: comparison with past rate hike cycles]



Notes: * indicates the months when the FOMC is convened. ** indicates the month when FRB Governor Janet Yellen's press conference is convened after the FOMC meeting. The graph above plots the breadth of rate hikes (by the broken line) in past interest rate hike cycles, with December 2015 as the starting point.

Source: Made by MHRI based upon releases by the FRB.

[MHRI US Cumulative Surprise Index (CSI)]



Note: The CSI is an index made by MHRI by comparing the market consensus of all US economic indicators released by Bloomberg with their publicly released readings. The larger (the smaller) the index, the more favorable (less favorable) than the market consensus.

Source: Made by MHRI based upon Bloomberg.

Europe: the ECB indicated the possibility of further monetary easing.

- The ECB indicated the possibility of further monetary easing amid the slow recovery of inflation and slowdown of the emerging market economies.
 - Mario Draghi, President of the ECB, commented at the press conference on September 3rd that the “the Governing Council wanted to emphasize [...] its willingness to act, its readiness to act, and its capacity to act, its ability to act”.
 - The ECB staff revised downward their projections on inflation, reflecting lower crude oil prices due to the slowdown of emerging market economies.
 - Looking forward, in the event of a further economic downturn of the emerging market economies or crude oil prices, the ECB will most likely take steps for monetary easing.

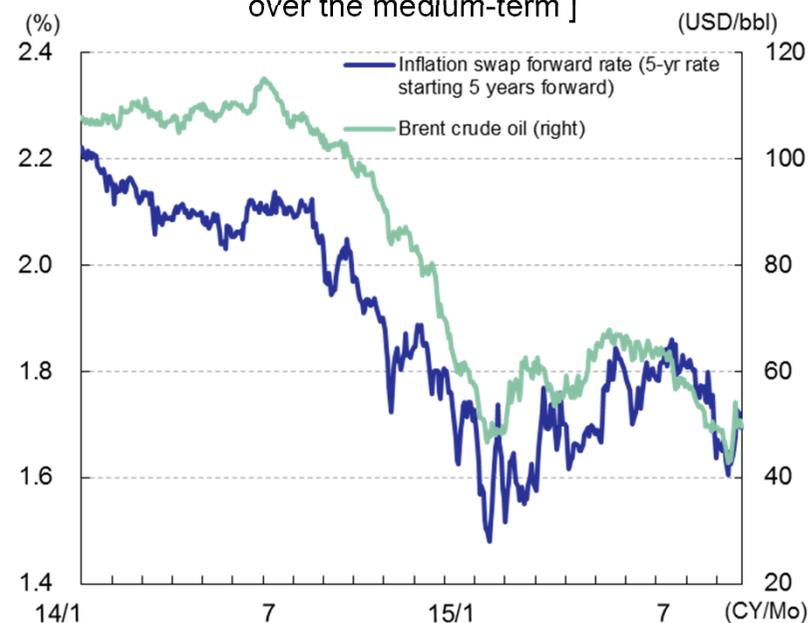
[ECB Staff Macroeconomic Projections (September 2015)]

		Unit	2015	2016	2017
June 2015 Projections	Real GDP	%	1.5	1.9	2.0
	CPI (all items)	Y-o-y %	0.3	1.5	1.8
	CPI (core)	Y-o-y %	0.8	1.4	1.7
	Crude oil price	USD/bbl	63.8	71.0	73.1
	Euro forex rate	USD/EUR	1.12	1.12	1.12
Sep 2015 Projections	Real GDP	%	1.4	1.7	1.8
	CPI (all items)	Y-o-y %	0.1	1.1	1.7
	CPI (core)	Y-o-y %	0.9	1.4	1.6
	Crude oil price	USD/bbl	55.3	56.1	60.9
	Euro forex rate	USD/EUR	1.11	1.10	1.10
Change in projections	Real GDP	%pt	-0.1	-0.2	-0.1
	CPI (all items)	%pt	-0.2	-0.3	-0.1
	CPI (core)	%pt	0.1	0.0	-0.2
	Crude oil price	USD/bbl	-8.5	-14.9	-12.2
	Euro forex rate	USD/EUR	-0.01	-0.02	-0.02

Note: The CPI (core) refers to all items excluding energy and food.

Source: Made by MHRI based upon ECB.

[Brent crude oil and inflation expectations over the medium-term]



Note: The “inflation swap forward rate (5-yr rate starting 5 years forward)” sets forth market participants’ forecasts on the average inflation rate during the five year period starting five years forward.

Sources: Made by MHRI based upon Bloomberg.

The Japanese economy – despite a downward revision mainly regarding exports, the economy is still projected to return to a recovery path

- ❑ In the Apr-Jun quarter of 2015, the *Second Preliminary Quarterly Estimates of GDP (2nd QE)* revealed that the Japanese economy fell into negative territory for the first time in three quarters. In comparison to the *First Preliminary Quarterly Estimates of GDP (1st QE)*, the rise of inventory investment was a source of concern. However, the negative growth stems from temporary factors (such as downward pressures upon consumption due to the bad weather).
- ❑ From the Jul-Sep quarter of 2015, the Japanese economy should return to a recovery track on the back of the four following factors: (1) the ebb of temporary negative pressures, (2) support by the “Triple Merits” (the weak yen/stock market rise, emergency economic stimulus measures, and low crude oil prices), (3) improvement of labor market conditions, and (4) corporate governance reforms. However, amid lingering inventory adjustment pressures, the slowdown of emerging market economies will also serve as a drag and keep the pace of recovery tepid for some time. 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.
- ❑ In comparison to our economic outlook in August, we have revised down our forecast mainly regarding exports to reflect the downward revisions on overseas economic growth. Forecast on growth in FY2015: +1.1% (outlook in August: +1.2%) , FY2016: +1.9% (outlook in August: +2.0%) . However, note the existence of lingering downside risks.
- ❑ Given the sharp fall of crude oil prices, the y-o-y change of the core CPI will dip into negative territory toward the summer to autumn of 2015. From then onward, energy prices should rise at a faster pace again amid the gradual rise of the underlying inflation rate, lifting the inflation rate to around 1.5% in 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: another downward revision. The economy will accelerate due to a last-minute rush of demand in the second half of FY2016

- Since the negative growth in the Apr-Jun quarter of 2015 stems largely from temporary factors, the Japanese economy will return to a recovery path.
 - We have revised down our projection on exports reflecting the slowdown of the emerging market economies. However, the Japanese economy will continue to follow a recovery track, given the “Triple Merits” (the weak yen/stock market rise, emergency economic stimulus measures, and low crude oil prices). A last-minute rush of demand prior to the consumption tax hike (in April 2017) will emerge in the second half of FY2016.
 - Our projections on real GDP growth have been revised downward for FY2015: +1.1% (outlook in August: +1.2%) and FY2016: +1.9% (outlook in August: +2.0%) .

[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	1.1	1.9	-0.3	0.3	1.1	-0.3	0.2	0.4	0.6	0.4	0.4	0.5	0.6
	Q-o-q % ch p.a.		--	--	--	--	-1.1	1.3	4.5	-1.2	0.9	1.5	2.2	1.7	1.7	2.1	2.6
Domestic demand	Q-o-q % ch		2.5	-1.4	1.2	1.7	-0.4	0.0	1.1	-0.0	0.3	0.3	0.5	0.4	0.4	0.5	0.9
Private sector demand	Q-o-q % ch		2.3	-2.1	1.4	2.3	-0.7	-0.1	1.5	-0.3	0.4	0.5	0.8	0.4	0.4	0.7	1.2
Personal consumption	Q-o-q % ch		2.5	-3.1	0.5	1.9	0.3	0.3	0.4	-0.7	0.5	0.4	0.3	0.2	0.4	0.6	1.7
Housing investment	Q-o-q % ch		9.3	-11.7	4.0	6.2	-6.3	-0.6	1.7	1.9	5.0	-3.5	2.4	0.6	4.9	0.3	1.3
Capital investment	Q-o-q % ch		4.0	0.5	3.1	3.7	-0.2	0.1	2.6	-0.9	1.2	1.5	1.4	0.6	0.6	0.7	0.8
Inventory investment	Q-o-q contribution, % pt		-0.5	0.5	0.2	-0.1	-0.5	-0.2	0.5	0.3	-0.3	0.0	0.1	0.0	-0.1	0.0	-0.3
Public sector demand	Q-o-q % ch		3.2	0.8	0.4	0.2	0.6	0.2	0.0	0.7	-0.2	-0.5	-0.4	0.3	0.2	0.2	0.3
Government consumption	Q-o-q % ch		1.6	0.4	1.1	0.9	0.3	0.3	0.3	0.5	0.1	0.2	0.2	0.3	0.2	0.2	0.3
Public investment	Q-o-q % ch		10.3	2.0	-2.2	-2.8	1.6	0.2	-1.4	2.1	-1.3	-3.0	-2.8	0.3	0.3	0.1	0.2
External demand	Q-o-q contribution, % pt		-0.5	0.6	-0.1	0.1	0.1	0.3	-0.1	-0.3	-0.0	0.1	0.1	0.1	0.0	-0.0	-0.3
Exports	Q-o-q % ch		4.4	7.9	0.4	5.9	1.8	2.8	1.6	-4.4	1.0	1.7	1.4	1.4	1.4	1.5	1.5
Imports	Q-o-q % ch		6.7	3.6	0.8	5.1	0.9	0.8	1.8	-2.6	1.1	0.9	1.0	1.1	1.2	1.6	2.9
GDP (nominal)	Q-o-q % ch		1.8	1.6	2.4	2.3	-0.6	0.8	2.1	0.1	0.4	0.5	-0.2	1.0	0.9	0.7	-0.2
GDP deflator	Y-o-y % ch		-0.3	2.5	1.3	0.4	2.1	2.4	3.5	1.5	2.1	1.7	-0.1	0.2	0.5	0.6	0.5
Domestic demand deflator	Y-o-y % ch		0.4	2.1	0.1	0.6	2.3	2.1	1.5	-0.0	-0.1	0.1	0.2	0.3	0.6	0.9	0.8

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 around 1.5%. A slight downward revision on FY2016 inflation from MHRI's outlook in August

[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	3.8	-1.4	0.8	1.5	-1.4	0.2	1.1	1.1	0.8	0.8	1.0	1.3
Ordinary profits	Y-o-y % ch	20.9	5.1	14.3	8.6	7.4	12.1	-1.0	21.0	10.8	8.7	16.6	9.6	8.7	7.8	8.4
Nominal compensation of employees	Y-o-y % ch	1.0	1.7	1.4	2.2	2.2	1.8	1.4	0.8	1.6	1.7	1.4	2.2	2.3	2.4	1.8
Unemployment rate	%	3.9	3.5	3.3	3.3	3.6	3.5	3.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
New housing starts	P.a., 10,000 units	98.7	88.0	93.1	97.1	86.1	88.0	89.6	95.3	90.9	92.7	93.2	97.5	97.9	98.9	93.7
Current account balance	P.a., JPY tril	1.5	7.9	15.2	15.4	2.0	10.7	15.5	16.8	13.4	17.9	12.0	18.1	15.0	18.0	9.9
Domestic corporate goods prices	Y-o-y % ch	1.9	2.8	-2.1	0.9	4.0	2.4	0.4	-2.2	-3.3	-2.2	-0.7	0.3	0.8	1.2	1.3
Consumer prices (ex fresh food)	Y-o-y % ch	0.8	2.8	0.1	1.1	3.2	2.7	2.1	0.1	-0.1	0.0	0.5	0.6	1.1	1.3	1.3
Consumer prices (ex fresh food, ex consumption tax)	Y-o-y % ch	0.8	0.8	0.1	1.1	1.2	0.7	0.1	0.0	-0.1	0.0	0.5	0.6	1.1	1.3	1.3
Consumer prices (ex food (ex alcohol) and energy, ex consumption tax)	Y-o-y % ch	0.2	0.5	0.6	0.7	0.6	0.4	0.4	0.4	0.7	0.7	0.6	0.5	0.6	0.8	0.8
Uncollateralized overnight call rate	%	0.04	0.02	0~0.10	0~0.10	0.03	0.07	0.02	0.01	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	0.40	0.65	0.53	0.44	0.34	0.40	0.40	0.45	0.45	0.60	0.65	0.65	0.70
Nikkei average	JPY	14,424	16,272	19,800	21,500	15,562	16,705	18,175	20,049	19,600	19,300	20,200	20,800	21,300	21,800	22,000
Exchange rate	JPY/USD	100	110	123	127	104	115	119	121	122	124	126	127	127	128	128
Crude oil price (WTI nearest term contract)	USD/bbl	99	81	51	55	97	73	49	58	47	49	51	53	54	56	58

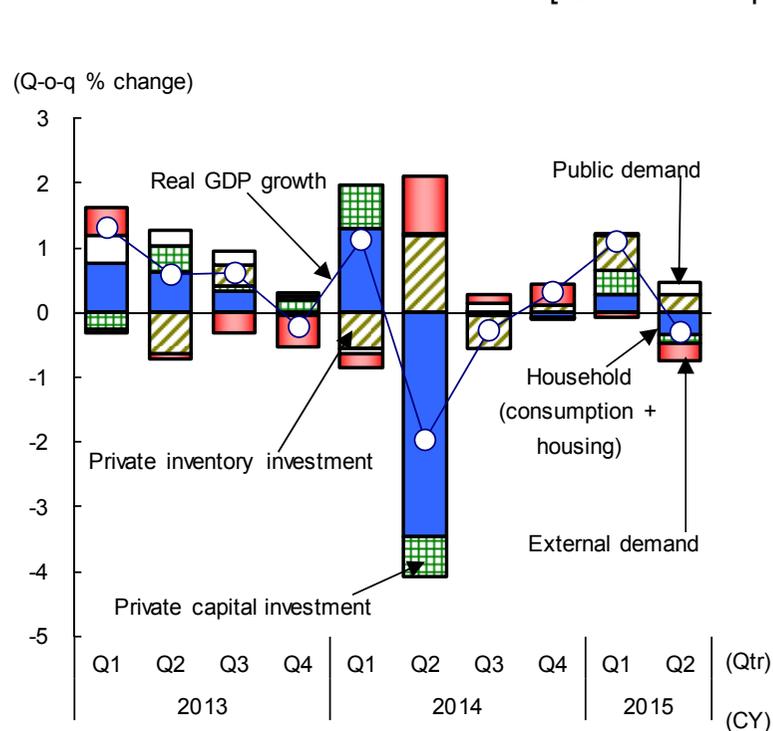
- Notes: 1. Figures in the shaded areas are forecasts. The readings above may differ from public releases because the rates of change are calculated based upon actual results.
2. Ordinary profits are based upon the *Financial Statements Statistics of Corporations by Industry* (all industries) (ex finance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

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.

Japan: overview of the 2nd QE – upward revision centering around inventory investment

- The *Second Preliminary Quarterly Estimates of GDP (2nd QE)* for the Apr-Jun quarter of 2015 released by the Cabinet Office revealed an upward revision of Japan's real GDP (-0.3% q-o-q or -1.2% p.a.) from the *First Preliminary Quarterly Estimates of GDP (1st QE)* (-0.4% q-o-q or -1.6% p.a.).
 - Since the rise of inventory investment led to the upward revision of GDP as a whole, the revision can not be assessed in a positive light.
 - On the other hand, our view remains unchanged that the negative growth stemmed from temporary factors (the backlash to the rise of exports early this year and the downward pressures upon consumer spending due to bad weather).

[GDP in the Apr-Jun quarter of 2015 (2nd QE)]



Source: Made by Mizuho Research Institute (MHRI) based upon Cabinet Office, *National Accounts*.

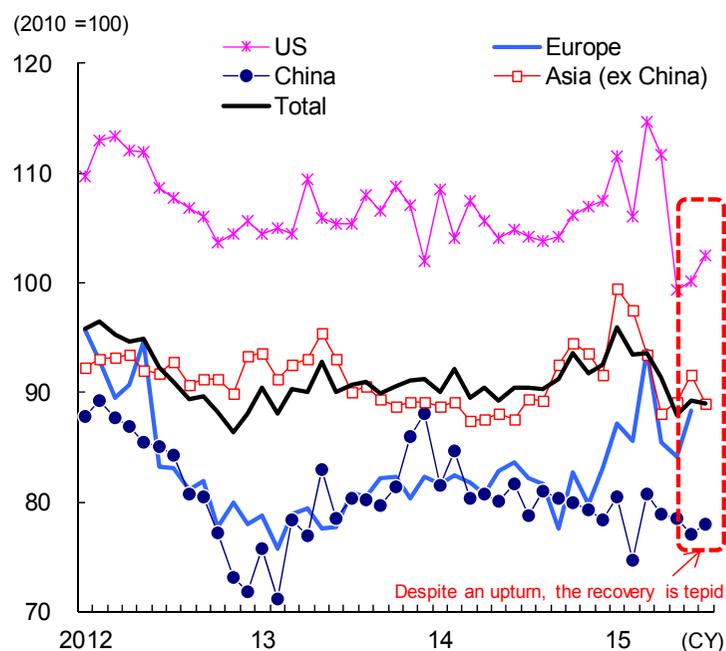
	2014			(Q-o-q % change)		1st QE Apr-Jun
	Apr-Jun	Jul-Sep	Oct-Dec	2015 Jan-Mar	Apr-Jun	
Gross domestic production	-2.0	-0.3	0.3	1.1	-0.3	-0.4
(Q-o-q change, p.a.)	-7.6	-1.1	1.3	4.5	-1.2	-1.6
(Y-o-y change)	-0.4	-1.4	-1.0	-0.8	0.8	0.7
Domestic demand	-2.7	-0.4	0.0	1.1	-0.0	-0.1
(-2.8)	(-0.4)	(0.0)	(1.2)	(-0.0)	(-0.1)	
Private demand	-3.7	-0.7	-0.1	1.5	-0.3	-0.4
(-2.9)	(-0.5)	(-0.1)	(1.2)	(-0.2)	(-0.3)	
Personal consumption	-5.0	0.3	0.3	0.4	-0.7	-0.8
Housing investment	-10.9	-6.3	-0.6	1.7	1.9	1.9
Capital investment	-4.2	-0.2	0.1	2.6	-0.9	-0.1
Inventory investment	(1.2)	(-0.5)	(-0.2)	(0.5)	(0.3)	(0.1)
Public demand	0.1	0.6	0.2	0.0	0.7	0.8
(0.0)	(0.2)	(0.1)	(0.0)	(0.2)	(0.2)	
Government consumption	0.1	0.3	0.3	0.3	0.5	0.4
Public investment	0.4	1.6	0.2	-1.4	2.1	2.6
Net exports of goods & services	(0.9)	(0.1)	(0.3)	(-0.1)	(-0.3)	(-0.3)
Exports	0.6	1.8	2.8	1.6	-4.4	-4.4
Imports	-3.9	0.9	0.8	1.8	-2.6	-2.6
Nominal GDP	0.2	-0.6	0.8	2.1	0.1	0.0
GDP deflator (y-o-y change)	2.2	2.1	2.4	3.5	1.5	1.6

Note: The figures in parentheses indicate the contributions to gross domestic production.
Source: Made by MHRI based upon Cabinet Office, *National Accounts*.

Japan: exports – although exports will pick up from the slump, the pace of recovery will be slow

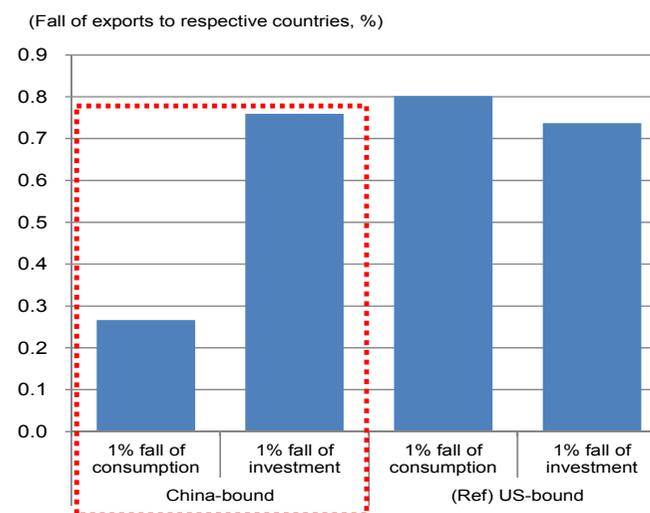
- Exports (based upon GDP data) is projected to pick up from the temporary slump and follow a gradual recovery track.
 - However, we have revised down our projections on exports to +0.4% y-o-y (outlook in August: +1.2% y-o-y) in FY2015 and +5.9% (outlook in August: +6.6% y-o-y) in FY2016.
- Even though the export volume index is currently (July) picking up from the slump in May, the pace of recovery is still slow.
 - Although exports to China will be propped up temporarily by infrastructure investment, the slowdown of investment reflecting China's excessive capacity should serve as a drag over the medium to long term. A trial calculation of the impact of the fall of China's demand upon Japan's exports indicates that the slowdown of investment has a large impact.

[Export volume index (by geographic destination)]



Note: Adjusted for seasonal factors by MHRI, Latest readings are as of July 2015.
Source: Made by MHRI based upon Ministry of Finance, *Trade Statistics*.

[Impact of the fall of China's demand upon Japan's exports (difference in impact according to components of demand)]

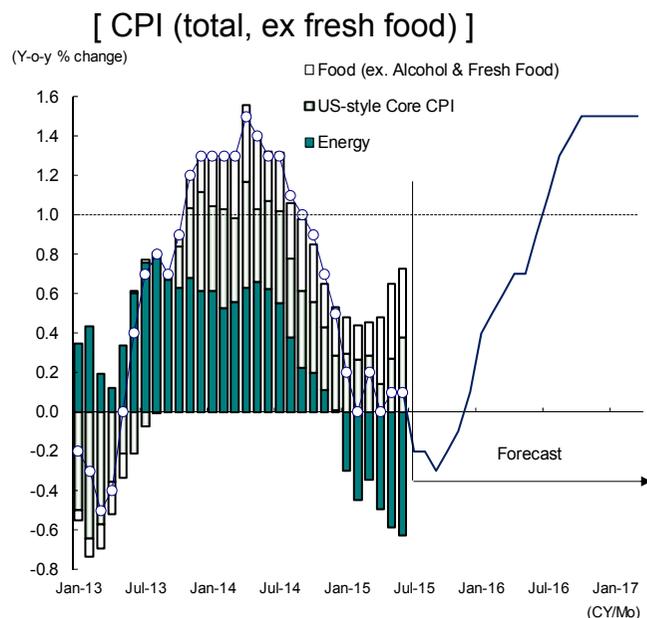


Note: By calculating the production inducement effect upon the World Input-Output Tables (WIOT), the amount of export fall was calculated by deducting the amount of inward-bound production (note that the fall of exports includes the fall of exports to intermediate countries).

Sources: Made by MHRI based upon Timmer, M.P. et. al. (2015) *An Illustrated Guide to the World Input-Output Database: the Case of Global Automotive Production*.

Japan: monetary policy – the BOJ may deliver another bout of monetary easing to address the downturn of sentiment

- ❑ The core CPI (y-o-y change) will dip temporarily into negative territory. From then onward, it will rise to around 1.5% in the second half of FY2016 due to rebound of energy prices and the weak yen.
 - For FY2015, core inflation was revised up slightly from our outlook in August (0.0%) to +0.1%. In contrast, our inflation projection for FY2016 was revised down to +1.1% (outlook in August: +1.3%).
 - The FY2015 projection reflects upside risks to food and durable goods prices due to the weak yen while the FY2016 projection reflects a stronger yen and the downward revision of crude oil prices.
- ❑ The BOJ maintained its view that its inflation target will be achieved in the first half of FY2016. The central bank views the current economic downturn as only temporary and that price trends are steadily improving.
 - However, the BOJ may deliver another bout of monetary easing in view of the downturn of sentiment due to the rise of concerns regarding China's economic slowdown and stock market crash.



Notes: Excluding the impact of the consumption tax hike. The US-style core CPI excludes food (ex alcohol) and energy. The figures from August 2015 are the spline interpolated quarterly based forecasts.

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



Note: Outlook on the percentage change of the core CPI (average including consumption tax hike).

Source: Made by MHRl based upon QUICK Monthly Market Survey (latest survey: August 31, 2015).

(Reference) Key political and economic events of major countries

[Key events and economic indicators (major market moving factors)]

Date	Key events and economic indicators (Sep)	Date	Key events and economic indicators (Oct)
Sep/13	China: retail sales, China: industrial production China: investment in fixed assets	Oct/1	Japan: BOJ <i>Tankan Survey</i> , US: ISM Manufacturing Index China: Manufacturing, Non-manufacturing PMI
Sep/14-15	Japan: BOJ Monetary Policy Meeting	Oct/2	US: employment statistics
Sep/15	US: retail sales US: Empire State Manufacturing Survey	Oct/6	US: trade statistics
Sep/16	US: CPI	Oct/6-7	Japan: BOJ Monetary Policy Meeting
Sep/16-17	US: FOMC	Oct/8	G20 Finance Ministers and Central Bank Governors Meeting (Peru, Lima)
Sep/20	Greece: general elections	Oct/13	China: trade balance
Sep/23	US: Manufacturing PMI (preliminary) China: Caixin manufacturing, services PMI (preliminary)	Oct/14	US: retail sales, US: Beige Book
Sep/24	Germany: ifo Business Climate Index	Oct/15	US: CPI, US: Empire State Manufacturing Survey
Sep/25	Japan: CPI	Oct/19	China: GDP, China: retail sales China: industrial production China: investment in fixed assets
(toward end of Sep)	US-China summit meeting (undecided date)	Oct/22	Europe: ECB Governing Council
		Oct/26	Germany: ifo Business Climate Index
		Oct/27-28	US: FOMC
		Oct/29	US: GDP
		Oct/30	Japan: BOJ Monetary Policy Meeting, <i>Outlook for Economic Activity and Prices (Outlook Report)</i> Japan: CPI

Source: Made by MHRI based upon media reports.

(Reference) Key political events of major countries

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

Source: Made by MHRI based upon media reports.

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