Mizuho Economic Outlook & Analysis

The BOJ's Comprehensive Assessment will be a *de facto* game changer of its monetary policy framework

- "Five Proposals" for the extension of monetary easing toward the year 2020 -

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Mizuho Research Institute





"Five Pillars" of MHRI's proposals in light of the extension of monetary easing

☐ Shift target from "quantity" to "interest rate"

• Implement measures which reduce the amount of the government's JGB holdings but would not be conceived as tapering among market participants (for example, set forth an outlook on or a statement to stabilize long-term interest rates (Japanese version of interest rate pegging) or presentation of forward guidance, etc.)

☐ Shift policy placing emphasis upon "expansion of quantity" to one placing emphasis upon "quality"

• Increase emphasis upon "quality" while reducing the amount of the government's JGB holdings. Expansion of financial intermediation functions through credit easing (such as purchases of local government bonds, government-guaranteed bonds, securitized products, foreign currency-denominated loan obligations)

☐ Raise flexibility of inflation target

- Prepare for the extension of monetary easing by reviewing the flexibility of the inflation target. The target should be changed to a long-term (final) target, while maintaining the fundamental objective to achieve the inflation target of 2% as early as possible
- Diversification of targets by setting forth reference values (GDP growth rate, output gap, wage hike rate, etc.)

□ Strengthen cohesiveness with the government

- Strengthen cohesiveness with the government's government bond management policy. Extension of the maturity of JGBs eligible for purchase by the Bank of Japan (BOJ) along with the increase of ultra long-term JGB issues
- Provide the government with the option to issue government bonds (equivalent to the value of undersubscribed JGBs) directly to the BOJ as an emergency measure to cope with undersubscriptions

□ Pass the torch to the growth strategy

- Confirm the government's joint commitment to measures for Japan's economic recovery, in a shift from an excessive dependence upon the BOJ's monetary policy
- Aspire to pass the torch to fiscal policy and the growth strategy in tandem with the government



Summary

0	Given that the inflation target is yet to be achieved, we are inclined to believe that the Bank of Japan (BOJ) will take a further monetary easing stance in it Comprehensive Assessment. However, note that this will comprise a <i>de facto</i> shift toward the extension of monetary easing. The BOJ will most likely aspire for a new policy framework as the negative interest rate policy loses effectiveness along with a shift in the US' tolerance of a strong dollar, and the BOJ faces limits to its JGB purchases.
0	In order to extend monetary easing up to 2020, monetary policy measures would have to shift away from the expansion of "quantity (government bond purchases)". To maintain the sustainable purchase of government bonds, the annual increase of the BOJ's bond purchases would have to be reduced from the current JPY80 trillion to around JPY20 trillion to JPY30 trillion. The use of the BOJ's current account balance as collateral is one option.
0	While the BOJ will have to maintain a monetary easing stance, it must eliminate the risk of the reduction of JGB purchases being perceived as a "tapering" in the market. As options available for the BOJ, we propose (1) a shift of target from "quantity" to "interest rate", (2) a shift to monetary policy placing emphasis upon "quality", (3) increased flexibility of inflation target, (4) a strengthening of cohesiveness with the government, and (5) a passing of the torch to the growth strategy, along with the maintenance of communications with the market.



While the Comprehensive Assessment will show a further monetary easing stance, it will serve as a *de facto* shift toward the extension of monetary easing.

- At the next Monetary Policy Meeting (MPM) (September 20 and 21), the BOJ will conduct a Comprehensive Assessment from the perspective of what should be done to achieve the price stability target at the earliest possible time. We expect a shift in the BOJ's strategy in order to extend the time span of monetary easing while maintaining its policy target to "achieve the price stability target of 2% at the earliest possible time".
 - In the Comprehensive Assessment, we expect the BOJ to set forth the policy effects thus far while indicating the impediments toward achievement of the price stability target such as the fall of crude oil prices. In order to indicate a stance toward further monetary easing, we look forward to monetary easing measures placing emphasis upon "quality" such as the expansion of corporate bond purchases.

[Direction of the Comprehensive Assessment]

Analysis of policy effect	 Indicate the policy impact to date such as the impact from the decline of real interest rates, realization of increase in base wages, and the decline of the unemployment rate. There may be comments on the impact of negative interest rates on the profits of financial institutions and on pensioners. 			
Analysis of impediments to the rise of prices	 Indicate the impediments to achievement of the price stability target strong sense of uncertainty about the decline of the price of crude oil and overseas economies strength of "adaptive formation mechanism" of inflation expectations difficulty for prices to rise due to the price setting method for public utilities and lack of quality adjustments for rent 			
Revisions of the policy framework	 Low possibility of a revision of the 2% price stability target or a retraction of the negative interest rate policy The Joint Statement by the Government and the BOJ (January 2013) expressly stated the achievement of the 2% price stability target at the earliest possible time Possibility of a revision of outright purchases of JGBs 			

Source: Made by Mizuho Research Institute (MHRI)

[Shift in monetary policy and achievement of price stability target]

Timing	Shift of monetary policy	Achievement of price stability target
Apr 2013	Introduction of "Quantitative and Qualitative monetary easing (QQE)"	Around 2 years
Oct 2014	Expansion of QQE	
Apr 2015		Around 1 st half of FY2016
Oct 2015		Around 2 nd half of FY2016
Dec 2015	Introduction of "Supplementary Measures for QQE"	
Jan 2016	Introduction of "QQE with a Negative Interest Rate"	Around 1 st half of FY2017
Apr 2016		During FY2017
Jul 2016	Enhancement of monetary easing → instruction to conduct "Comprehensive Assessment"	

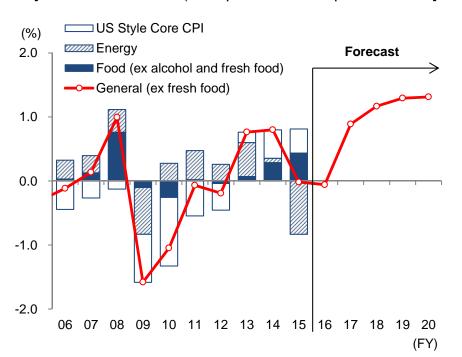
Source: Made by MHRI based upon BOJ, etc.



The inflation rate will still be below 2% in FY2020. Rising uncertainties toward achievement of the price stability target

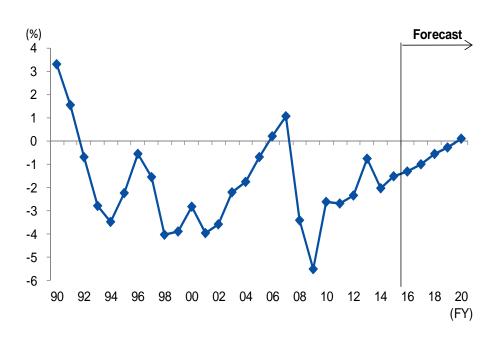
- Given the impact of the yen appreciation and the fall of crude oil prices, the core inflation rate will remain in negative territory until around the end of 2016. From then onward, despite an upturn of the y-o-y change of energy prices, it would be difficult to achieve the price stability target during FY2017. The achievement of the price stability target is uncertain, with the inflation still around 1.0% to 1.5% or so in FY2020.
- □ The BOJ indicated in its *Outlook for Economic Activity and Prices* (the *Outlook Report*) that it is highly uncertain whether the price stability target can be achieved during FY2017. The strength of "adaptive formation mechanism" of inflation expectations may serve as an impediment to the rise of prices.

[Outlook on the CPI (ex impact of consumption tax hike]



Note: The US style core CPI = general ex food (ex alcohol) and energy Source: Made by MHRI based upon Ministry of Internal Affairs and Communications, Consumer Price Index

[Output gap]



Note: Estimates by MHRI.

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



QQE with a negative interest rate – its mechanism and challenges

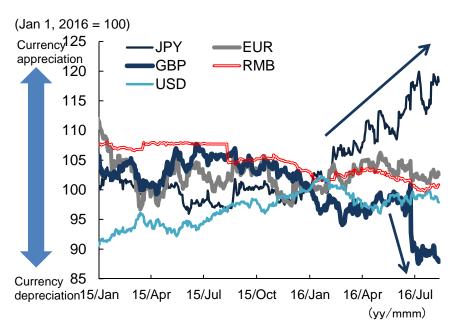
☐ The BOJ lowered the nominal interest rate with the introduction of its "quantitative and qualitative monetary easing with a negative interest rate" (QQE with a negative interest rate). Although the BOJ sought to achieve expected price rises by showing a strong commitment toward achievement of the price stability target and by surprises, it became apparent that there are limits to the price rise mechanism due to the difficulty to raise inflation expectations by the adaptive formation mechanism of inflation expectations. As the natural rate of interest fell, its relation to the real interest rate has made it difficult to achieve a sufficient monetary easing effect. It will be necessary to demonstrate a long-term commitment (up to around 2020) against a background of adaptive expectations and to raise the natural rate of interest by the growth strategy. [Mechanism of QQE with a negative interest rate] Strong and clear commitment to achieve Concerns regarding Massive purchases of the price stability target of 2% sustainability of long-term JGBs JGB purchases Long-term commitment with a view to 2020 Drive down the real interest rate below the real equilibrium interest rate Real interest Real equilibrium interest rate I **Inflation expectations** Nominal interest rate (natural rate of interest) JGB yields have declined more than **Decrease** Increase Increase BOJ's expectations Decrease Impact upon Increase by financial institutions' government's growth strategy fund management, corporate retirement Lending and benefit obligations capital market Inflation expectations are not rising due to the Contraction of the loan-deposit **Economy Improve** fall of crude oil prices interest spread is pushing and adaptive formation down financial institutions' profits mechanism Growth of capital investment is **Actual inflation rate** Increase also limited despite the decrease of lending rates Source: Made by MHRI based upon BOJ



The yen is failing to weaken despite the decline of long-term interest rates Hurdles edge higher for achievement of the price stability target

- The yen is still appreciating despite the decline of long-term interest rates due to massive purchases of JGBs by the BOJ, making it the strongest currency in strength against the US dollar.
- Although the negative interest rate policy (NIRP) is largely an antidote to the strong yen as a substitute to currency market intervention, it is failing to exert its desired effect.
- The impact of the yen appreciation upon the y-o-y rate of change of the CPI through the fall of import prices is intensifying in comparison with its impact a decade ago. The persistence of a strong yen is serving as head winds for the BOJ's price stability target.

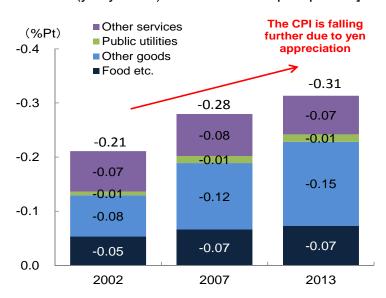
[Exchange rate trends of (5 major currencies)]



Note: The US dollar in the graph above is set forth as the nominal effective exchange rate. All currencies other than the dollar are exchange rates to the dollar.

Source: Made by Mizuho Research Institute (MHRI) based upon Bloomberg

[The impact of a 10% appreciation of the yen upon the CPI (y-o-y % ch) via the fall of import prices]



Note: We calculated he impact of the change in price of imported goods at times of a weak yen upon each of the sectors in the graph on the basis of the *Input-Out Tables*. The percentage change of price rises for each of the sectors was then weighted by consumption expenditures of each of the sectors. We assume these results to be the rate of contribution to the rise of the CPI. The rate of price shift is assumed to be a uniform 0.5.

Source: Made by MHRI based upon Ministry of Economy, Trade and Industry, Input-Output Tables



Rise of concerns regarding the side effects of NIRP

- Despite hopes that NIRP will have a positive effect upon the government and corporate sectors, the contraction of the loan-deposit interest spread is driving down financial institutions' profits, leading to concerns regarding the decline of financial intermediation functions.
 - The BOJ's Financial System Report (April 2016) indicated the extension of NIRP "could eventually lead to a weakening in their credit intermediation function". There is also a global trend which scrutinizes NIRP's "economic limits", namely that NIRP does not have a positive impact upon the economy.
- Note that there are deep concerns regarding NIRP among the public. BOJ Deputy Governor Hiroshi Nakaso stated that "It certainly is true that those who have no housing loans and whose financial assets mostly consist of deposits, such as pensioners and the elderly, do not enjoy benefits from the decline in borrowing rates and instead only suffer from a decline in interest income".

[Impact of NIRP upon transfer of income among sectors (approximation)]

	Impact upon property balance (interest income - interest payments)	Including the impact of a change in price of JGB sell-offs to the BOJ
Household (including individual proprietorships)	+122.6 bil yen	
Non-financial institutions	+265.7 bil yen	Sell-off of JGB holding
Financial institutions	-973.3 bil yen	Positive impact upon earnings due to the rise of JGB sell-off price to BOJ
Government	+935.0 bil yen	_
Bank of Japan	-278.2 bil yen	Negative impact upon earnings due to the rise of purchase price of JGBs

Note: Base upon the following assumptions:

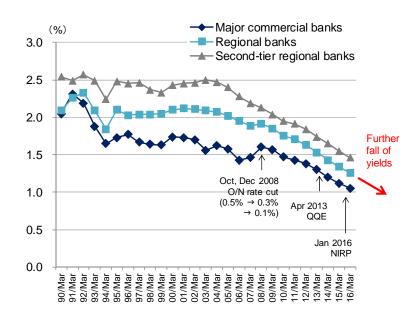
Loans & borrowings, securities other than stocks (-10 bp), deposits (-1 bp)

The macro add-on balance (-10 bp), policy interest balance (-20 bp)

Source: Made by Mizuho Research Institute (MHRI) based upon Bank of Japan, Flow of Funds

Accounts

[Trends in loan-deposit interest spread (by type of bank)]



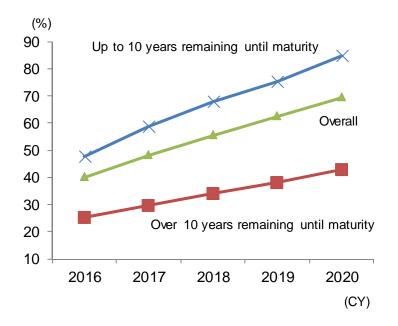
Source: Made by MHRI based upon Japanese Bankers Association



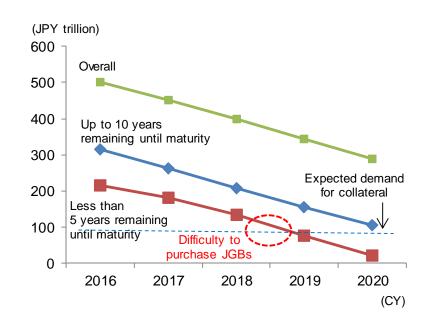
The possibility that it will become difficult for the BOJ to purchase JGBs from 2018 onward

In view of demand for government bonds as collateral by financial institutions, the BOJ may find it difficult to purchase JGBs from 2018 onward. Given forecasts of the extension of monetary easing, it will be necessary to enhance the sustainability of monetary easing through the reduction of JGB purchases.

[Outlook on the percentage of JBGs held by the BOJ in JGBs issued 1



[Outstanding JGB holdings by private-sector investors other than the BOJ]



Based upon assumptions of an increase of BOJ purchases of JGBs at a rate of JPY80 trillion per year. The amount of JGB issues is based upon the JGB Issuance Plan for FY2016.

Source: Made by MHRI

Based upon assumptions of an increase of BOJ purchases of JGBs at a rate of JPY80 Note: trillion per year. The amount of JGB issues is based upon the JGB Issuance Plan for FY2016.

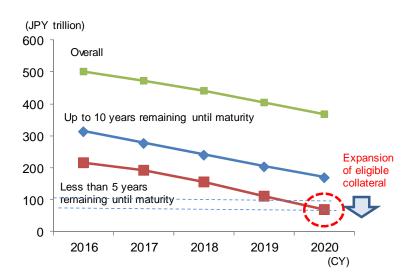
Source: Made by MHRI



Looking forward to 2020, JGB purchases would have to be reduced to the JPY20 trillion-level

- ☐ It may be possible for the BOJ to keep purchasing JGBs up to 2020 by reducing the annual increase of JGB purchases from JPY80 trillion/year to JPY60 trillion/year, and at the same time, reducing the burden of collateral by accepting part of the current account balances with the BOJ as eligible collateral.
- The equilibrium level at which the BOJ can maintain the sustainable purchase of JGBs up to 2020 would be around JPY20 trillion to JPY30 trillion in the event it purchases the same amount of JGBs as the increase in amount of JGBs outstanding (of each maturity).

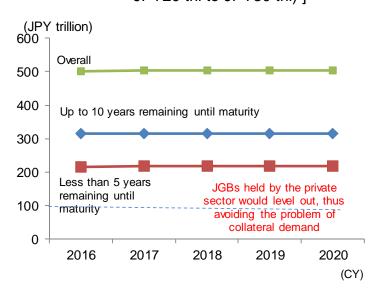
[Case 1: Reduction of JGB purchases (JPY80 tril → JPY60 tril) + expansion of eligible collateral]



ote: Based upon assumptions of an increase of BOJ purchases of JGBs at a rate of JPY60 trillion per year. Of the BOJ current account deposits, the basic balance will be deemed as eligible collateral, thus liquidating JPY30 trillion of JGBs deposited by financial institutions to the BOJ. The amount of JPG issues is based upon the JGB Issuance Plan for FY2016.

Source: Made by MHRI

[Case 2: Equilibrium value of JGB purchases (JPY80 tril → JPY20 tril to JPY30 tril)]



Note: The pace of the BOJ's JPG purchases: FY2017 (JPY29 trillion), FY2018 (JPY28 trillion). FY2019 (JPY25 trillion), FY2020 (JPY23 trillion). The amount of JPG issues is based

upon the JGB Issuance Plan for FY2016.

Source: Made by MHRI



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