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The Bank of Japan's unsuccessful fight against deflation

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- The monetary policy objective of the Bank of Japan (BoJ) is to maintain price stability, with the target of 2 percent of the yearly growth in the consumer price index.
- For years, Japan has faced on and off deflation and a stagnating economy. Exiting from the "deflationary mind-set" – together with a revival of growth – stays at the center of both Prime Minister Abe's three-arrow recovery plan and the BoJ's monetary policy agenda.
- Success is doubtful. As long as the third "arrow" of structural reforms remains stuck in the quiver, the economy is unlikely to escape from its low-growth-mild-deflation equilibrium.

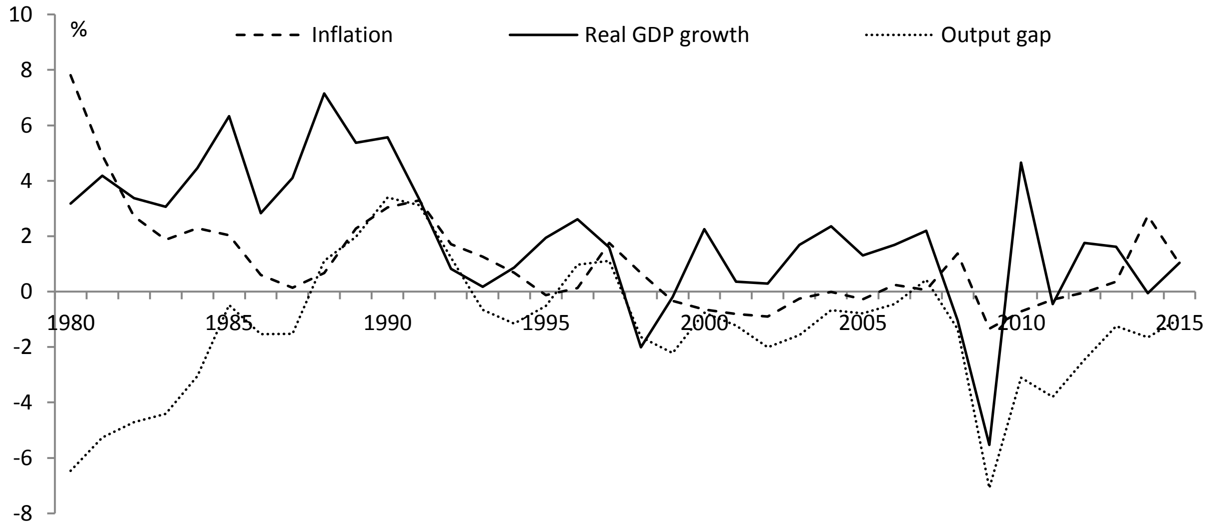
Growth has been poor and inflation very low or negative since the mid-1990s (Fig. 1).[1] The economic policy response was the expansion of fiscal and monetary policy. However, rather than boosting investment and growth, the experiment has led to an unprecedented public debt explosion and an even gloomier outlook for growth.

The disappointing performance of the past years has been due to a number of factors, notably: (a) long delays in the restructuring of the banking sector; (b) inadequate and very slow structural reforms, including the maintenance of international trade barriers and overregulation of services; (c) a secular bear market in equities that aggravated the weakness of balance sheets in the financial sector; (d) rigidities in the labor market; and (e) an aging population.[2] As a result, failure to adjust has left the Japanese economy way behind its foreign competitors.

[1] The origins of Japan's recession date back to the starting point of the Japanese bubble economy during the first half of the 1980s. For a rigorous discussion, see Gunther Schnabl (2015), Monetary policy and structural decline: lessons from Japan for the European crisis, Asian Economic Papers, 14(1), 124-150.

[2] For a more elaborated assessment of the Japan's developments and predicament in the past three decades, see Thomas Mayer (2014), Japanische Zwickmühle, Flossbach von Storch Research Institute, Makroanalyse 10/2014.

Figure 1. Inflation, real GDP growth and output gap in percentage of potential GDP.



Source: World Economic Outlook.

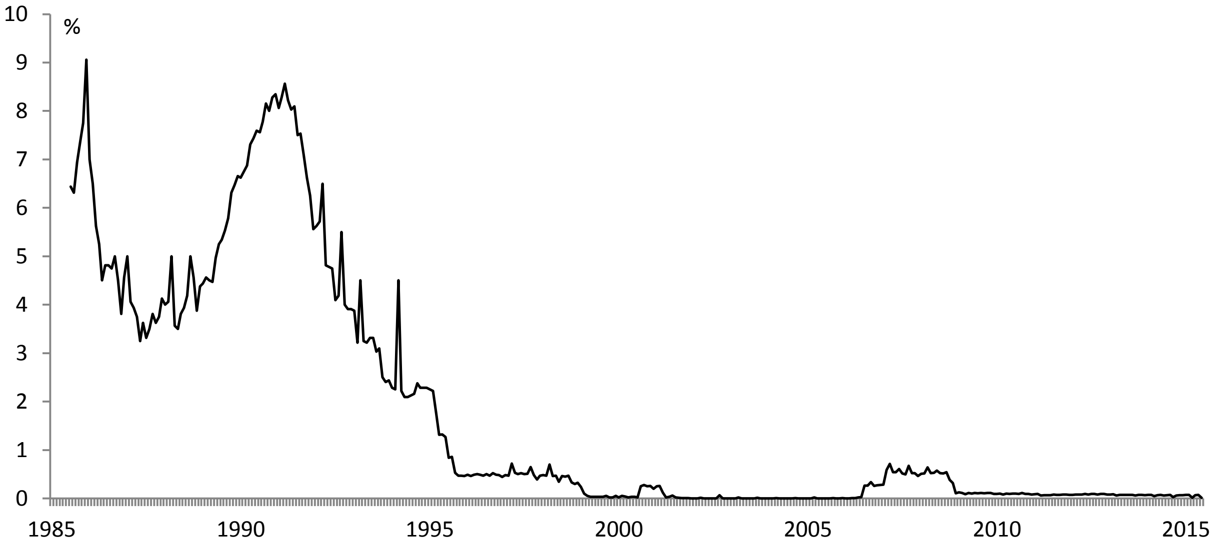
So far, all efforts to escape the low-growth-deflation trap have failed. In this note, we review the BoJ's fight against deflation and give a brief description of its approach to monetary policy.

The early fight against deflation

Since the burst of the asset price bubble in December 1989, the BoJ has fought a low-intensity battle against deflation. Initially, until 1991 the bank kept monetary conditions tight, with the aim of helping the correction of overvalued asset prices. But because of the appreciation of the Japanese yen, the central bank eventually decided to cut the interest rate between early 1991 and 1995, bringing the targeted policy rate, the overnight uncollateralized call rate, from 8 percent to almost zero (Fig. 2). This, however, did not stop the cooling down of the economy. Subsequently, despite claiming to stay at the zero-bound until "deflationary concern [was] dispelled", the bank prematurely raised the rate by 25 bps in August 2000. A new bout of economic weakness forced it into another U-turn. Rates were cut again in March 2001. Policy mistakes and poor communication with the broad public undermined the bank's credibility.

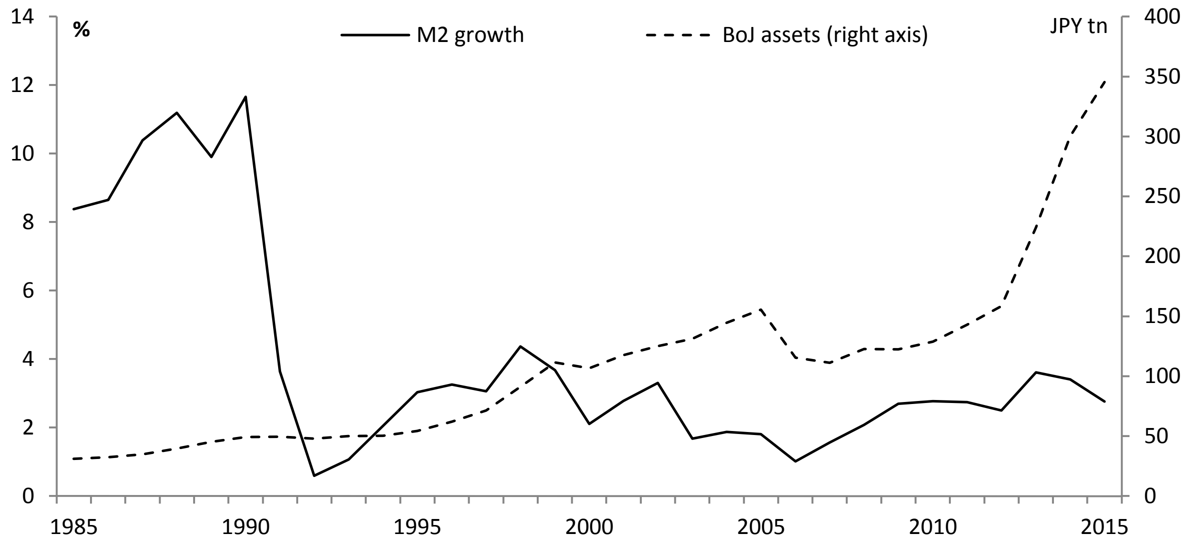
Recessionary tendencies and persistently low inflation induced the BoJ at the end of the 1990s to take unconventional monetary policy measures in the form of a balance sheet expansion dubbed "quantitative easing" (QE). To boost money supply, the bank increased the amount of outright purchases of long-term government bonds from a regular amount of JPY 400bn to JPY 600bn in August 2001, and further to JPY 1.2tn by October 2002. The bank also started to purchase private debt in the form of asset-backed securities. But the purchase program and the increase in the bank's balance sheet did not result in the expected rise in money supply (Fig. 3). On the one hand, monetary institutions preferred to deposit their excess cash at the central bank rather than take risk in lending it to other financial institutions at a derisory yield. On the other hand, improving financial conditions

Figure 2. Uncollateralized overnight call rate, effective, end of period, monthly data.



Source: Haver.

Figure 3. BoJ total assets and money supply (M2) growth.



Source: Haver.

resulting from balance sheet consolidation allowed private enterprises to close their credit lines with commercial banks. As a result, the additional central bank money did not reach the economy. The negative output gap persisted and continued to depress prices.

The BoJ under "Abenomics"

The fight against deflation was stepped up as part of the three-arrow economic stimulus program launched by the incoming Prime Minister Shinzo Abe at the beginning of 2013.

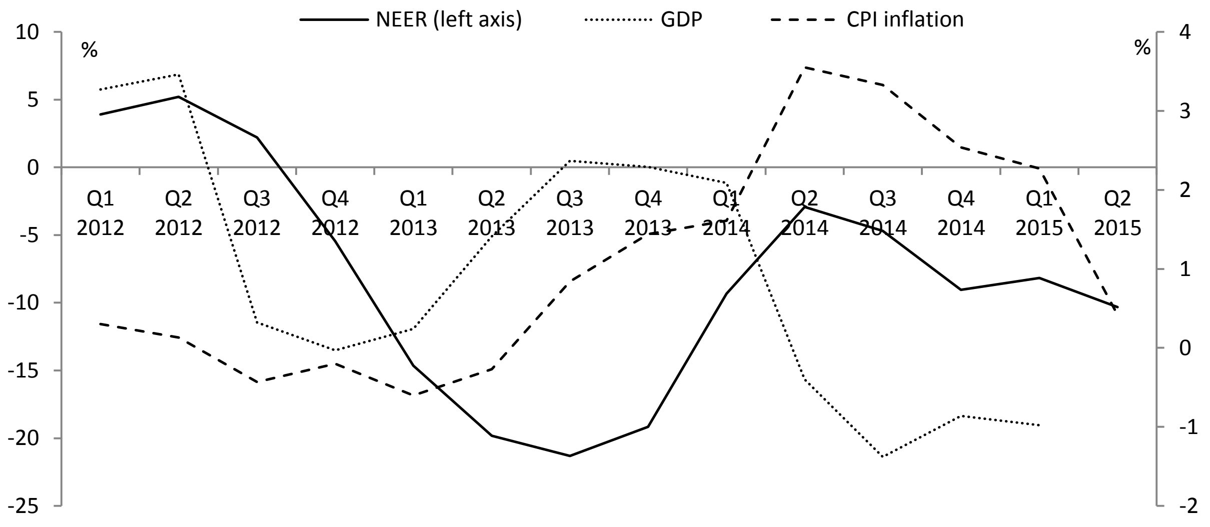
Apart from the first arrow of fiscal stimulus (launched immediately in 2013) and the third arrow of structural reforms (still stuck in the quiver), the second arrow of Abe's economic recovery plan consisted of an extremely loose monetary policy in the form of a large-scale asset purchase program with the aim to weaken the yen and to raise inflation towards the 2 percent target as soon as possible. In April 2013, the BoJ – under the newly appointed governor Haruhiko Kuroda – started to massively buy government bonds with a view to doubling the monetary base. As in the 2000s, the injection of central bank money did not have any appreciable effect on money supply (Fig. 3). Depreciation of the yen since Q3 2013 gave only a short-term boost to inflation while growth remained sluggish (Fig. 4).

The BoJ's monetary policy framework

The primary goal of the BoJ's is to achieve "price stability, thereby contributing to the sound development of the national economy"[3]. In the past, the BoJ had no formal inflation target, but used to refer to a desired inflation rate of zero or above. This changed in January 2013, when the bank set a formal target of 2 percent for the year-on-year rate of change in the consumer price index (CPI).

The responsibility for the formulation and implementation of monetary policy lies with the Policy Board. It is composed of a governor (currently Haruhiko Kuroda, in office since March 2013), two deputy governors (Kikuo Iwata and Hiroshi Nakaso, both appointed together with the governor in March 2013), and six other members.

Figure 4. Year over year percentage growth rates of nominal effective exchange rate (NEER), of CPI inflation and of real GDP, quarterly data.



Source: Haver.

[3] Bank of Japan Act.

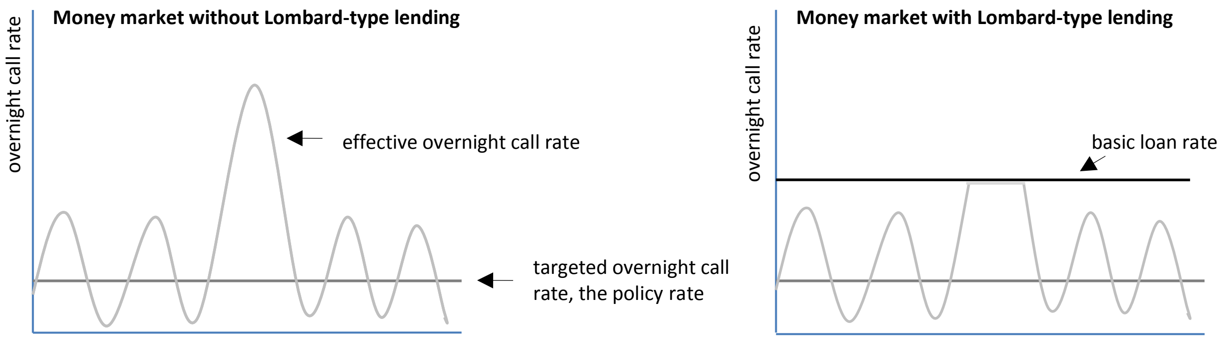
Based on in-depth analyses and discussions on the economic and financial situation, the Policy Board decides on the basic monetary stance for the immediate future and establishes a guideline for money market operations.

Under the normal monetary policy framework, the bank regularly conducts money market operations, consisting of day-to-day provision and absorption of funds in the market, with the aim to achieve the target set for the uncollateralized overnight call rate. Due to weak economic growth and low inflation since the early 1990s, the BoJ gradually cut the target to extremely low levels and put it at zero in the 2000s. Only between mid-2006 and mid-2008 the BoJ managed to raise the rate slightly. But very soon the target was cut again three times between February 2007 and December 2008 to the present level of around 0.1 percent. The effective rate reached zero in March 1999 and, with temporary exceptions around 2001, 2007 and 2008, has remained around this level since then (Fig. 2).

The policy rate of the BoJ can be compared to the US federal funds rate – both constitute a target for an effective rate resulting from inter-bank transactions in the money market. In February 2001, the BoJ introduced a contingent lending facility (sometimes referred to as "Lombard-type" lending facility) to establish a ceiling for the overnight call rate. The rate at this facility is called "basic loan rate" (also referred to as "basic loan and basic discount rate"; prior to 2001 called "official discount rate").The working of the system is illustrated in Figure 5. The basic loan rate was reduced in the course of the financial crisis from 0.75 percent in September 2008 to 0.3 percent in December 2009 and has been kept at this level since then (Fig. 6).

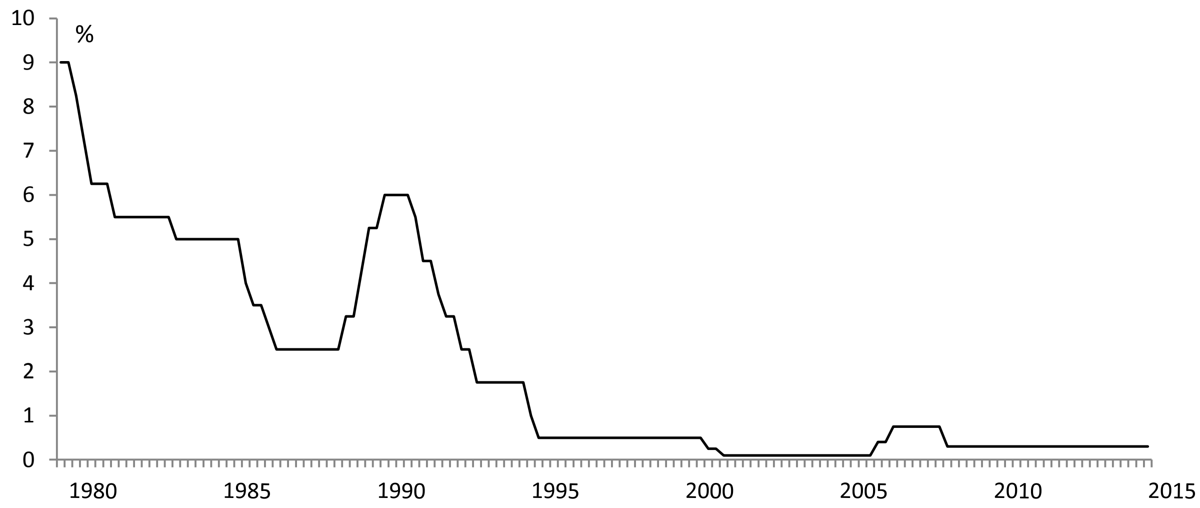
As a response to the turmoil in financial markets since the Lehman collapse in September 2008, the BoJ has adopted a range of unconventional policy measures, both quantitative and qualitative, with the aim to improve liquidity conditions, ensure financial market stability and

Figure 5. Money market and interest rates of the BoJ.



Source: Own elaborations based on the BoJ.

Figure 6. Basic loan rate, quarterly data.



Source: BoJ.

facilitate corporate financing.[4] But as in the period prior to the crisis, these policy actions did not succeed in raising economic growth and ending deflation.

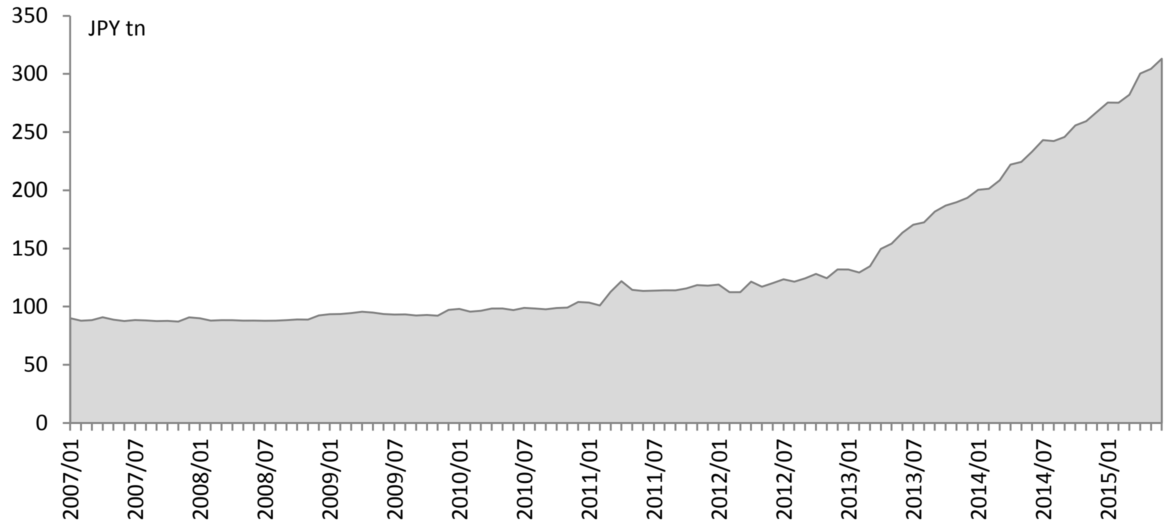
More decisive steps have been taken since April 2013, when the BoJ started a new phase of monetary easing, both in terms of quantity and quality through its "Quantitative and Qualitative Monetary Easing" (QQE) program. As one of the crucial decisions taken within the program, the bank changed its main operating target for the money market operations. The uncollateralized overnight call rate, which had been stuck at almost zero since December 2009, was replaced with a target for the growth of the monetary base. Accordingly, the bank wants to purchase assets so that the monetary base increases by about JPY 60-70tn annually. Since then, the monetary base has more than doubled from around JPY 150tn to JPY 320tn (Fig. 7).

Also in April 2013, the BoJ introduced several qualitative policy measures, with the aim to further ease money market conditions. Specifically:

1) to encourage a further decline in interest rates across the yield curves, the bank accelerated purchases of Japanese Government Bonds (JGBs) to an annual pace of about JPY 50tn. As a result, JGBs have become the largest position on the central bank's inflated balance sheet (Fig. 8). Eligibility of JGBs for purchases was extended to all maturities, including 40-year bonds, and the average remaining maturity of the bank's JGB purchases was extended from almost 3 to about 7 years;
2) to lower capital market rates and support asset prices, the bank decided to accelerate purchases of stock exchange-traded funds (ETFs) and Japan real estate investment trusts (J-REITs).

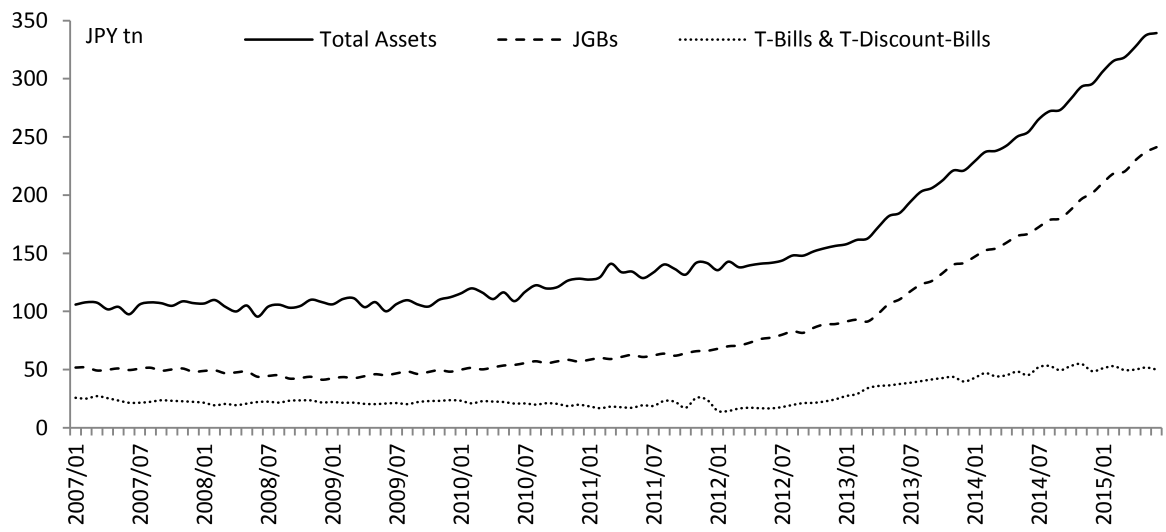
[4] Table A1 in Appendix offers a summary of the major monetary policy measures introduced by the BoJ since October 2008.

Figure 7. Monetary base, average amounts outstanding, averaged monthly data.



Source: BoJ.

Figure 8. Total assets, Japanese government securities, and their categories.



Source: BoJ.

Given the downward pressure on prices due to weak demand following the consumption tax hike and the decline in crude oil prices, the bank expanded the QQE in October 2014. The main policy actions followed the lines of the April 2013 decision and included:

1) acceleration of the annual pace of monetary base growth by JPY 10-20tn to an annual pace of about JPY 80tn;

2) acceleration of JGB purchases by JPY 30tn to an annual pace of about JPY 80tn;

3) extension of the average remaining maturity of the bank's JGB purchases by a maximum of 3 years to 7-10 years;

4) further acceleration of ETF and J-REIT purchases.

The BoJ in the middle of the Japanese experiment

The mandate to achieve the price stability target of 2 percent brought the BoJ to adopt a number of innovative monetary policy measures. However, the huge balance sheet expansion through different kinds of asset purchases and the qualitative monetary easing measures have so far not brought the desired economic effects.

To overcome deflation, the Japanese economy would need growth. Higher nominal GDP would help the government to reduce the exorbitant public debt ratio. But fiscal and monetary easing are not enough. Structural reforms are a must. Although they formally constitute a part of Premier Abe's recovery plan, nothing suggests at present that the arrow will eventually leave the quiver.

Aggressive monetary expansion and more government spending have failed to halt the gradual decline of private investment, both in absolute terms and relative to GDP. The lack of success has brought reciprocal accusations between the central bank governor and the prime minister, with the former calling for more fiscal discipline and the latter insisting on reaching the inflation target.

Developments in Japan may be useful as a crystal ball for looking into the future of other developed economies. Years of stagflation, huge and continuously increasing public debt, an aging population, and a slow pace of structural reforms constitute Japan's predicament. With some years of delay, this could become the predicament of the rest of the western world. If the Japanese cure in the form of ultra-loose monetary policy and excessive fiscal stimulus without structural reforms does not heal the patient, how could this ever work elsewhere?

Appendix

Table A1. Main quantitative and qualitative monetary easing measures of the BoJ since the financial crisis.

Aim	Measure	Date
Improvement of liquidity in the JGB market	- Softening conditions on JGB repo operations: eligibility extended to further maturities of JGBs; - Increase in outright purchases of JGBs from JPY 14.4tn per year to JPY 16.8tn in Dec. 2008 and to JPY 21.6tn in March 2009;	Oct. 2008; Dec. 2008; March 2009; March 2013
Facilitation of corporate financing	- Increase in the frequency and size of CP repo operations; - Broadening of eligibility of asset-backed CP to debt obligations guaranteed by a counterparty's financial institutions; - Introduction and subsequent extension of outright CP purchases; - Introduction of "Special Funds-Supplying Operations to Facilitate Corporate Financing";	Oct. 2008; Dec. 2008; Feb. 2009
Achievement of financial market stability	- Establishment of Complementary Deposit Facility; - Extension of USD funds-supplying operations; - Inclusion of Government-guaranteed dematerialized CP as eligible collateral; - Broadening of the range of Japanese government securities offered in the Security Lending Facility.	Oct. 2008; Feb. 2009
Adjustment of monetary policy target	- Replacement of the uncollateralized overnight call rate target with the monetary base target; - Increase of the targeted yearly monetary base growth.	March 2013; Oct. 2014

Source: BoJ.

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