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# IMF Working Paper

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Twenty Years of Unconventional Monetary Policies:  
Lessons and Way Forward for the Bank of Japan

by Niklas Westelius

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I N T E R N A T I O N A L M O N E T A R Y F U N D

## IMF Working Paper

Asia and Pacific Department

### Twenty Years of Unconventional Monetary Policies: Lessons and Way Forward for the Bank of Japan<sup>1</sup>

Prepared by Niklas Westelius

Authorized for distribution by Paul Cashin

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#### Abstract

The Bank of Japan has used unconventional monetary policies to fight deflation and stabilize the financial system since the late 1990s. While the Bank of Japan's reflation efforts have evolved over time, inflation and inflation expectations have remained stubbornly low. This paper examines the evolution of monetary policy in Japan over the past twenty years, in order to draw relevant lessons and propose ways to strengthen the Bank of Japan's policy framework. In doing so the analysis focuses on three aspects of monetary policy: objectives and goals; policy strategies; and the communication framework. Moreover, the paper discusses coordination between monetary, fiscal, and financial policies, and how the corresponding institutional design could be strengthened.

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## I. INTRODUCTION

With limited conventional fire power to respond to the 2008-09 Global Financial Crisis (GFC), most major central banks adopted unconventional monetary policies (UMPs) to stabilize financial conditions, boost economic activity, and maintain price stability. Today, more than a decade later, financial markets and institutions are looking stronger and more resilient. However, inflation remains below central bank targets, and there is a risk that long-run inflation expectations are drifting downwards. Indeed, some observers have warned that advanced economies are stuck in a suboptimal low-growth and low-inflation equilibrium (e.g., Summers, 2015). Moreover, the low interest rate environment has raised concerns that low profitability of financial institutions might threaten financial intermediation and stability down the road. These concerns have triggered efforts by central banks to reevaluate current monetary policy frameworks, with some observers questioning the very foundations of inflation targeting (e.g., Posen 2019).

It is in this context that Japan's long experience of UMPs can provide valuable lessons to other central banks. Indeed, Japan's efforts to use UMPs to fight deflation and stabilize the financial system are particularly interesting for a number of reasons. First, the Bank of Japan (BoJ) became the first major central bank in modern times to resort to UMPs in 1999, almost a decade before the GFC. This provides an almost two-decade-long time period to assess UMPs in Japan. Second, since gaining greater independence in 1998, the BoJ's policy framework have evolved significantly over time. This evolution has to a large extent reflected a constant struggle to address price stability as well as financial stability concerns, a key challenge that has become increasingly important to other central banks in the post-GFC era. Finally, the relationship between monetary, fiscal, and financial policies has been at the forefront of policy discussions in Japan ever since the BoJ gained greater independence in the late 1990s. Given recent calls for greater coordination between fiscal and monetary policy in other countries (e.g., Bartsch et al. 2019), Japan's experience can provide important lessons.

A large literature has tried to assess the conduct of monetary policy in Japan and to what extent specific policy actions had the intended economic impact. Less has been written about the evolution of the monetary policy *framework* in which such policy decisions have been made.<sup>2</sup> To fill this gap, this paper discusses the BoJ's policy framework since it gained independence in 1998, with a particular focus on the evolution of: (i) objectives and goals; (ii) policy and communication strategies; and (iii) policy coordination between monetary, fiscal, and financial authorities. Moreover, drawing on this narrative the paper proposes potential ways to strengthen the current framework.

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<sup>2</sup> For recent papers evaluating the impact of UMPs in Japan see Schenkelberg and Watzaka (2013), Matousek et al (2019), and Hong and Kandrac (2018). For papers reviewing Japanese monetary policy over the past two decades and discussing the policy framework see Kuttner (2014) and Orphanides (2018).

The paper is organized as follows. Section II discusses the evolution of the BoJ's policy objectives and goals since the late 1990s. Section III lays out the development of the BoJ's unconventional strategies, while Section IV examines the Bank's communication strategies and its attempts to manage inflation expectations. Section V discusses policy coordination between the government and the BoJ, while Section VI reflects upon the Bank of Japan's twenty years of reflation experience and sets out a number of measures that could be taken to strengthen the overall monetary policy framework. Section VII concludes.

## II. EVOLUTION OF POLICY OBJECTIVES AND GOALS

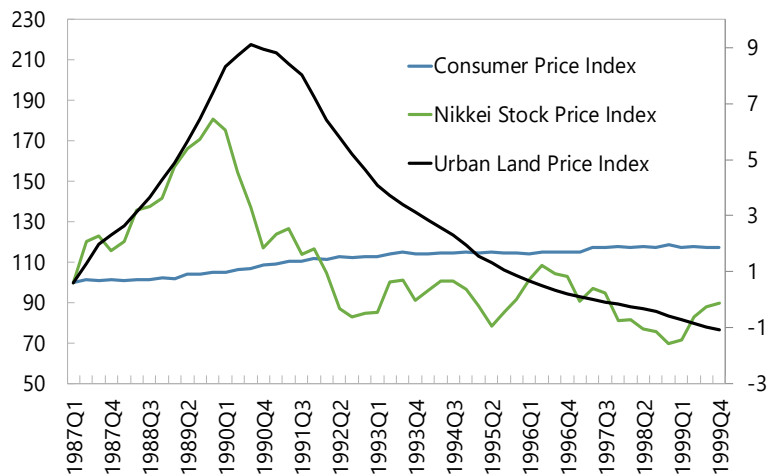
The collapse of Japan's asset price bubble in the early 1990s was a watershed event that had a lasting impact on domestic policymaking. Prior to the collapse, the Japanese economy had been growing at a healthy pace and inflation had been low and stable. Nevertheless, financial imbalances were gradually building up, with equity and real estate prices reaching unprecedented levels in the late 1980s and early 1990s (see text figure). When the asset bubble eventually burst, the ensuing financial crisis and its broad-based impact on economic activity triggered a vivid policy debate on how to strengthen policy institutions and financial market regulation. Reforming the BoJ, which at the time was subordinate to the Ministry of Finance, became one of the focal points of the debate (see Cargill et al., 2000).

In this context, two important lessons emerged from the crisis regarding monetary policy. First, the stable and low inflation observed before the crisis showed that achieving price stability was not sufficient to ensure financial stability and soundness of the national economy. Second, the BoJ

needed greater independence from the government to secure credibility with the public and financial markets. Incorporating these lessons, a new Bank of Japan Act was enacted in 1997 by the Diet, and came into effect in 1998.<sup>3</sup> The new law separated the BoJ from the Ministry of Finance and provided the legal underpinning for a broad-based policy approach with explicit policy objectives to achieve price stability and contribute to the

**Japan: Asset and Consumer Prices, 1987-1999**

(Index=100, 1987)



Source: Haver Analytics.

<sup>3</sup> The new Bank of Japan Act (Act No. 89 of June 1997).

stability of the financial system.<sup>4</sup> Importantly, however, while the revised Act specified BoJ's policy objectives, it did not constrain the bank in interpreting their relative importance and to set specific policy goals.

During 2000–06, financial and price stability issues were front and center for the BoJ. Non-performing loans weighed on financial intermediation while deflation became more pronounced.

Over time, however, as financial

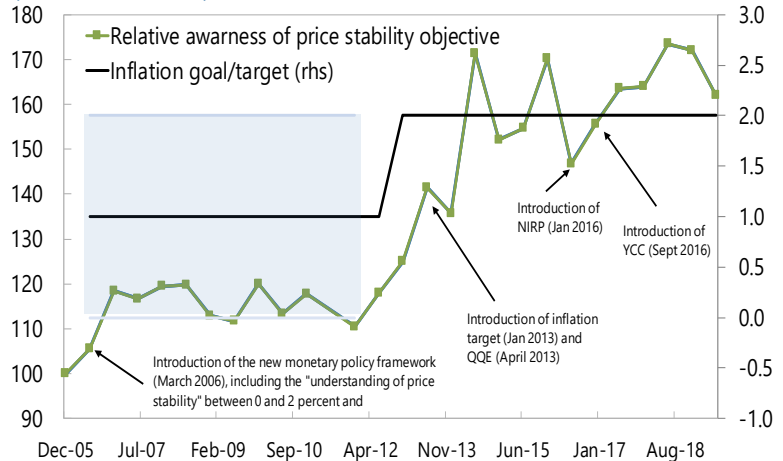
vulnerabilities became less prevalent and the urgency to reflate the economy more pressing, the price stability objective grew in importance. This was particularly true following the government's introduction of Abenomics in 2012 which put forth an ambitious policy agenda to raise growth and exit deflation.<sup>5</sup>

Indeed, survey data compiled by the BoJ show that the public's relative awareness of the price stability objective increased substantially in 2012-13 (see text figure).

Similarly, transparency with respect to the price stability target also became more pronounced over time. The BoJ's definition of "price stability" remained vague in the late 1990s and was broadly defined as a situation that was "neither deflationary nor inflationary."<sup>6</sup> However, in 2006—as part of a new monetary policy strategy—the BoJ saw the need for greater clarity regarding its price stability target and decided to disclose that

**Japan: The BoJ's Price Stability Target and the Public's Awareness of the Price Stability Objective relative to Financial Stability Objective<sup>1</sup>**

(Index Dec 2005=100)



<sup>1</sup> The measure is calculated as the ratio between the share of respondents saying they have knowledge of the price objective to the share of respondents saying they have knowledge of the financial stability objective. Source: Bank of Japan; Opinion Survey on the General Public's Mindset and Behavior.

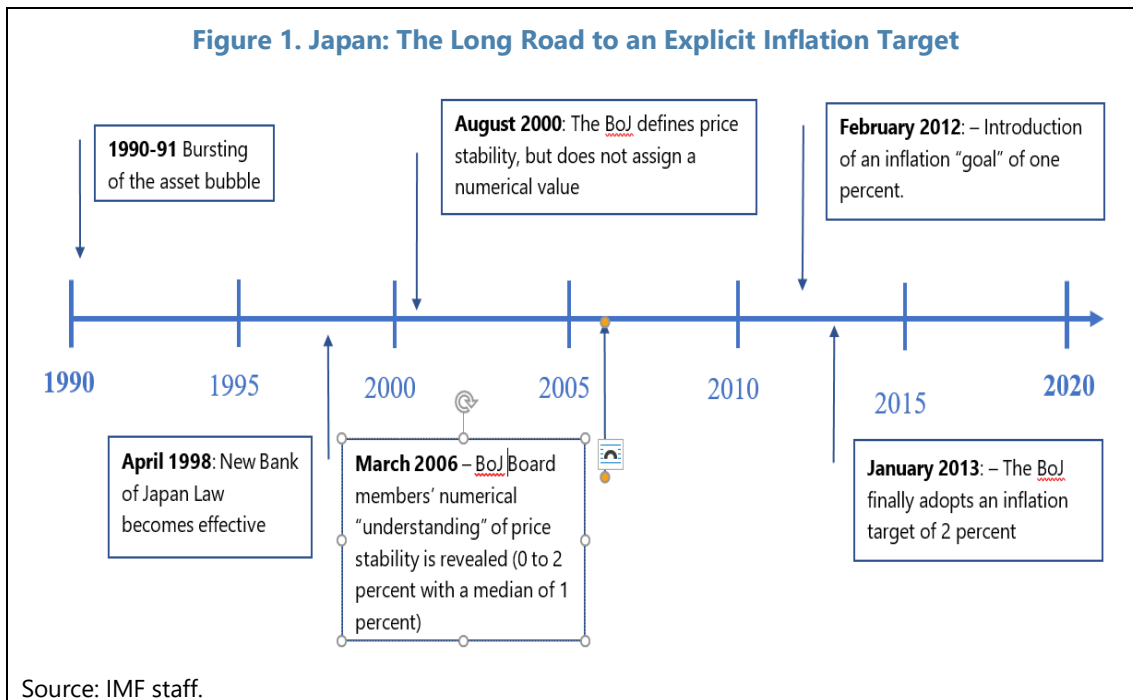
<sup>4</sup> The BoJ's objective under the previous Bank of Japan Act (1942) was to help maximize the potential growth of the economy (Ito, 2004). The 1998 Act states that the objective for monetary policy should be "aimed at achieving price stability, thereby contributing to the sound development of the national economy" (Article 2) and that the purpose of the bank is to "[...] ensure smooth settlement of funds among banks and other financial institutions, thereby contributing to the maintenance of stability of the financial system" (Article 1).

<sup>5</sup> In 2013, the new government of Prime Minister Shinzo Abe announced an ambitious policy framework often referred to as Abenomics. The three arrows of Abenomics called for a coordinated policy effort by the Bank of Japan (BoJ) and the government to jumpstart the economy and create sustained growth synergies through bold structural reforms (Cabinet Office and Bank of Japan (2013), IMF (2013), IMF (2014)). Accordingly, on January 22, 2013, the BoJ announced a new monetary policy framework where a 2 percent inflation target, measured as the year-on-year rate of change in headline consumer price index (CPI), became the price stability mandate. See Anand et al. (2019) for the timeline of monetary policy initiatives introduced by the Bank of Japan since the launch of Abenomics.

<sup>6</sup> See [https://www.boj.or.jp/en/announcements/release\\_2000/k001013a.htm/](https://www.boj.or.jp/en/announcements/release_2000/k001013a.htm/)

individual Board members' understanding of medium to long-term price stability ranged between 0 and 2 percent with a median of around 1 percent. Six years later, in 2012, shortly after the U.S. Federal Reserve announced a 2 percent inflation goal, the BoJ adopted a single numerical inflation goal of 1 percent to help clarify its policy stance. Importantly, the new price stability goal was no longer tied to the views of Board members but to that of the institution. This provided an added layer of stability and transparency to the new goal. Finally, a year later—with the introduction of Abenomics and in line with other major central banks—the 1 percent goal was replaced by a two percent inflation target.

In all, it took the BoJ almost 15 years to adopt a clear and transparent target for its price stability objective (see Figure 1). This prolonged aversion to adopt an explicit inflation target partially reflected a fear that a numerical inflation target would reduce policy flexibility and hence make it more difficult to effectively attend to other policy objectives such as financial stability.<sup>7</sup> After all, one of the key lessons from the financial crisis in 1990-91 was that achieving price stability was not enough to secure a health national economy.



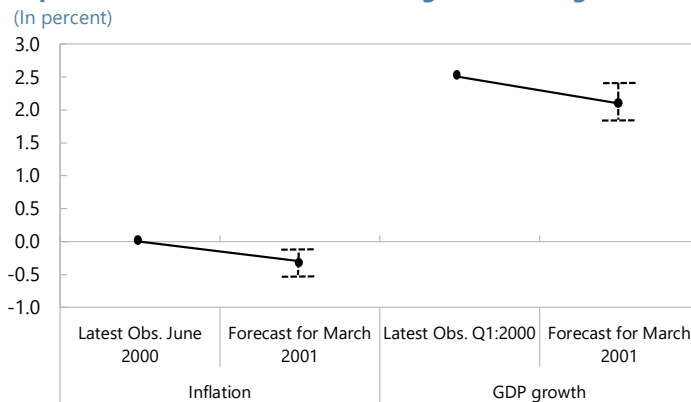
<sup>7</sup> Interestingly, the use of "goal" in 2012 reflected the belief that "target" might be construed as meaning rigidly conducting monetary policy with only price developments taken into account. See [https://www.boj.or.jp/en/mopo/mpmsche\\_minu/minu\\_2013/g130122.pdf](https://www.boj.or.jp/en/mopo/mpmsche_minu/minu_2013/g130122.pdf)

### III. DEVELOPMENT OF UNCONVENTIONAL MONETARY POLICY STRATEGIES

In the late 1990s and early 2000s the Japanese economy was facing slowing demand, declining consumer prices, and financial instability due to a confluence of factors, including the 1997 consumption tax hike, a domestic banking crisis, and the Asian Financial Crisis (see Figures 2 and 3). Unfortunately, with the policy rate close to the zero-lower bound (ZLB), the BoJ was severely constrained in providing monetary policy support. Hence, in the absence of conventional policy space, the BoJ embarked on a number of unconventional policy measures.

In February 1999, the BoJ introduced its Zero Interest Rate Policy (ZIRP) by lowering the policy rate “as low as possible.” In addition, the Bank later announced that the ZIRP would continue until deflationary concerns subsided. By August 2000, the BoJ judged that current economic conditions had improved enough to exit ZIRP and raised the overnight call rate into positive territory. This normalization effort, however, occurred despite a less than favorable outlook (see text figure) and appears to have been premature. For instance, Kuttner (2014) points to the ensuing fall in long-term rates as evidence that the policy reversal adversely affected inflation expectations.

**Japan: BoJ: Forecasts when Exiting ZIRP in August 2000**



Sources: BoJ

Note: The March 2001 forecasts were published in October 2000. The intervals around the forecasts indicate the range of Board members' forecasts

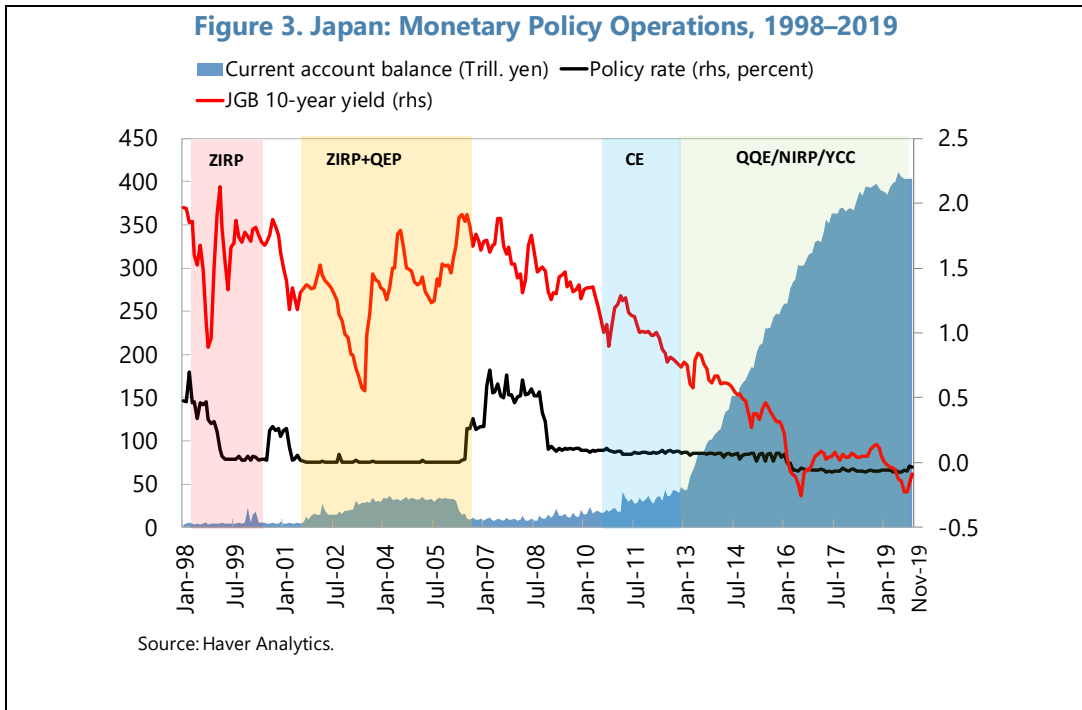
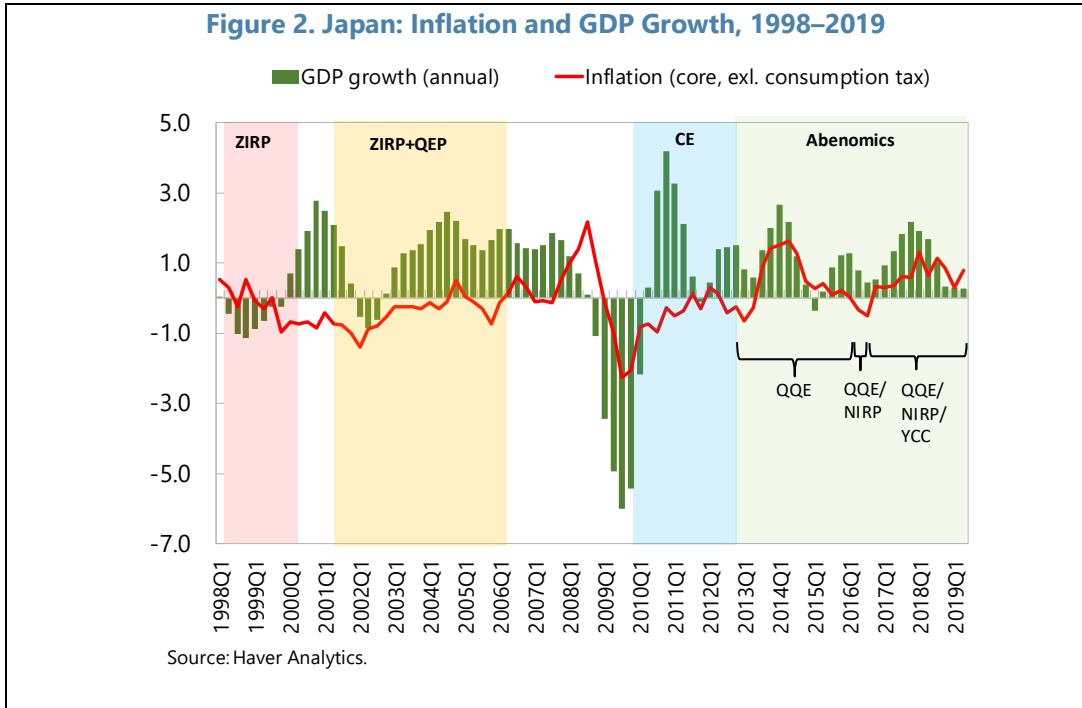
In early 2001, as the economy weakened substantially, the BoJ decided to re-instate ZIRP and reinforce it with the new policy initiative labeled Quantitative Easing Policy (QEP). The new policy strategy entailed a change in policy instrument—from the short-term rate to quantity of reserves—and purchases of long-term JGBs to increase the monetary base. To convince markets that the policy would be maintained, the Board committed to maintain ZIRP until core inflation became stably above zero or recorded an increase year on year.<sup>8</sup>

During the ZIRP and QEP, the financial system stress also occurred several times, causing liquidity and risk premia to rise. In addition to the liquidity support provided through QEP, the BoJ took specific steps to target pockets of financial vulnerability, including widening the range of acceptable collateral for its fund providing operations and allowing banks to sell stocks directly to the BoJ.<sup>9</sup>

<sup>8</sup> See [https://www.boj.or.jp/en/announcements/release\\_2003/k031010b.htm/](https://www.boj.or.jp/en/announcements/release_2003/k031010b.htm/)

<sup>9</sup> See Ueda (2012) and [https://www.boj.or.jp/en/announcements/release\\_2002/fss0210c.htm/](https://www.boj.or.jp/en/announcements/release_2002/fss0210c.htm/)



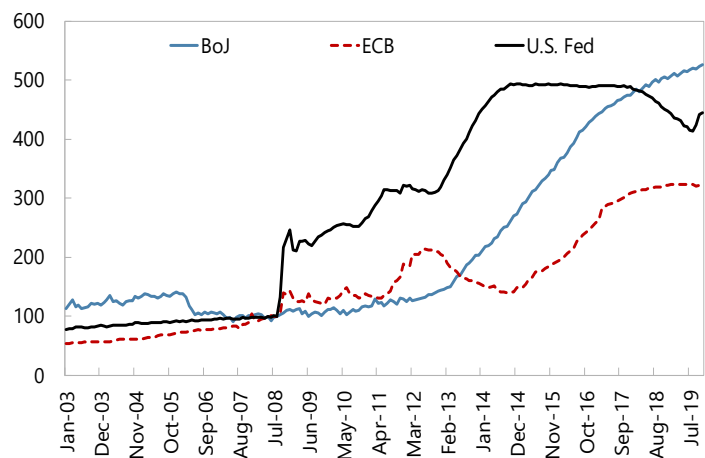


In early 2006, economic growth had recovered, inflation was rising, and financial and corporate sectors were in the best shape in over a decade.<sup>10</sup> Moreover, the legacy problem of non-performing loans, which had hampered financial intermediation, was largely resolved. Hence, in March 2006, the BoJ judged that the conditions for exiting QEP had been met and re-introduced the overnight interest rate as the main policy tool. However, similar to the 2000 episode, the BoJ's economic forecast published around the time of the decision did not seem to indicate a strong case for normalization. Specifically, the BoJ projected the two-year-ahead core inflation at slightly below one percent, and according to the minutes from the policy meeting on March 9, 2006, many Board members judged that the output gap was only gradually narrowing and that unit labor costs were facing weakening downward pressures.

Along with the exit from QEP, the BoJ introduced a new monetary policy framework. The goal was to improve policy predictability while still preserving flexibility. The framework consisted of two components. First, Board members decided to disclose their “understanding” of price stability (ranging from 0 to 2 percent). Second, policy decisions were to be guided by a “two perspective” approach. The first perspective entailed an assessment of whether the near-term outlook (1-2 years) followed a path of sustainable growth under price stability. The second perspective was to examine various risks to the outlook over the longer term, including financial stability risks. This “two perspective” approach” has remained largely intact since 2006 and continues to underpin the BoJ's policy making today.

In the summer of 2008, the GFC significantly depressed economic activity and caused a sharp drop in inflation (Figure 1). In response, the BoJ lowered the overnight rate again to the ZLB and took a number of measures to strengthen financial institutions and market functioning.<sup>11</sup> However, it was not until October 2010 that the BoJ reverted back to quantitative easing by introducing its Comprehensive Monetary Easing (CE) framework. The CE framework re-introduced ZIRP together with an asset purchase program consisting not only of JGB purchases, but also risky assets to reduce term and risk

**Size of Balance Sheet: BoJ, ECB and U.S. Federal Reserve**  
(index=100; August 2008)



Source: FRED

<sup>10</sup> See <https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Japan-Staff-Report-for-the-2006-Article-IV-Consultation-19484>

<sup>11</sup> See <https://www.boj.or.jp/en/mopo/outline/cfc.htm/>

premia.<sup>12</sup> Overall, in comparison to other major central banks (e.g., U.S. Federal Reserve and the European Central Bank), the BoJ's response to the GFC was more protracted and smaller in size (see text figure).

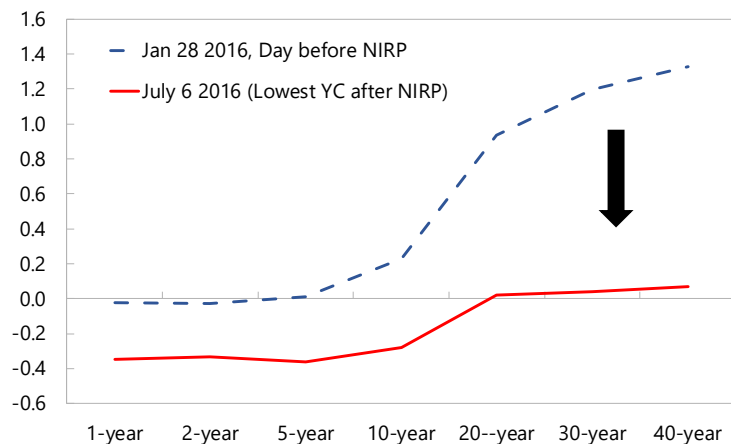
The relative cautious approach adopted by the BoJ after the GFC ended abruptly in 2013 as Abenomics was rolled out. The policy package constituted a coordinated policy effort by the BoJ and the government to: (i) achieve the new two percent inflation target; (ii) boost potential growth and increase competitiveness; and (iii) ensure long-run debt sustainability.

In April 2013, just a few months after raising the price stability target to 2 percent, the BoJ introduced *Quantitative and Qualitative Easing* (QQE)—a significant scale-up of CE—consisting of a sharp increase in purchases of JGBs and risky assets. Under QQE, the BoJ explicitly committed to increase its annual purchase JGBs holdings by about ¥50 trillion per year. The new program signaled a determined effort by the BoJ to back up its commitment to the higher inflation target through strong and transparent actions. The new strategy appeared initially successful. Inflation and inflation expectations rose, the exchange rate depreciated, and growth picked up.<sup>13</sup> However, economic conditions started to deteriorate in the second half of 2014 as a fall in oil prices and weak demand following the consumption tax rate hike in April 2014 exerted downward pressure on inflation and growth. The BoJ responded to the weakening economy in October 2014 by raising the annual increase of JGB holdings from ¥50 trillion to ¥80 trillion

Despite the scale-up of QQE, domestic growth weakened further in 2015, and inflation continued to fall (Figure 1). Moreover, concerns were emerging that the BoJ would soon run out of JGBs to purchase and that options to further stimulate the economy were limited. To dispel these concerns, the BoJ surprised market participant in early 2016 by introducing its *Negative Interest Rate Policy* (NIRP). The interest rate on excess reserves was lowered into negative territory with the intention to put downward pressure on short-term interest rates and raise inflation expectations by re-confirming the Bank's commitment to achieving the inflation target.

However, the impact on yields was larger than anticipated, leading to a significant

**Japan: Flattening of the Yield Curve Following NIRP**  
(In Percent)



Source: Haver Analytics.

<sup>12</sup> The risky asset purchases covered corporate bonds, commercial paper, exchange-traded funds (ETFs), and real estate investment trusts (REITs).

<sup>13</sup> See Ilabaca and Cashin (2019) for an assessment on how QQE affected inflation expectations.

flattening of the yield curve (see text figure). The large compression of term spreads triggered worries about financial sector side-effects (i.e., increased risk taking and further decline in profitability of financial institutions). Moreover, rising global growth concerns and financial stability concerns during the first half of 2016 led to lower stock prices, continued yen appreciation, weak credit demand, and persistent doubts about the BoJ's ability to reflate the economy.

In the summer of 2016, with actual and expected inflation still below target more than three years after the introduction of QQE, the Bank of Japan launched a comprehensive review of its monetary policy framework. The review was published in September 2016 and concluded that while the lowering of real interest rates along the yield curve had been the most effective tool to stimulate economic activity, inflation expectations had proven more backward-looking than previously thought. Based on these observations, the BoJ decided to pivot its policy strategy yet again. Instead of aiming for a quick reflation, the BoJ switched to a more protracted reflation approach that was seen as more compatible with the highly adaptive nature of inflation expectations. Specifically, the idea was to generate a persistent positive output gap through sustained accommodative policy. This would eventually cause realized inflation to gradually rise and eventually re-anchor inflation expectations at the two percent target. Importantly, to make this approach sustainable, this prolonged "high-pressure" strategy would need to be complemented by measures to mitigate financial side-effects.

To support the new reflation strategy, the BoJ implemented a new operational framework labeled *Yield Curve Control* (YCC). The objective of YCC was to shape the yield curve by targeting both the short-term interest rate (NIRP) and the long-term interest rate (10-year JGB yield). By buying JGBs along the entire yield curve, the BoJ would be able to prevent the long end of the curve from falling while keeping the short end unchanged. This would make monetary accommodation more sustainable since lending rates are benchmarked to short- to medium-term interest rates, while the profitability of financial institutions such as pension funds and insurers is influenced by long-term term spreads.<sup>14</sup> Moreover, the YCC would allow the BoJ to reduce JGB purchases and hence address concerns that it was running out of JGBs to buy.

Macroeconomic outcomes improved somewhat under YCC between 2016 and 2020. Economic growth averaged above potential and core inflation appeared to have stabilized at slightly below one percent. Moreover, the yield curve steepened compared to the levels seen right before the implementation of YCC, and the BoJ's purchases of JGBs fell markedly. However, little progress was made in terms of permanently lifting inflation expectations.

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<sup>14</sup> See speech by Governor Kuroda (2017): [https://www.boj.or.jp/en/announcements/press/koen\\_2017/ko171114a.htm/](https://www.boj.or.jp/en/announcements/press/koen_2017/ko171114a.htm/)

Moreover, low bank profitability and search for yield by financial institutions continued to pose a significant medium-term risk to financial stability.<sup>15</sup>

In spring of 2020, global economic activity took a severe hit as the COVID-19 pandemic spread across the world. The BoJ responded with continued monetary accommodation and expanded support to finance firms and maintain stability in financial markets. The Bank adopted measures to maintain the smooth functioning of financial markets and incentivize the provision of credit. These measures included an expansion of asset purchase schemes such as JGBs, commercial paper and corporate bonds, exchange-traded funds, scaling-up of special funds-supplying operations to facilitate financing of corporates, and the enhancement of U.S. dollar liquidity provision with five other major central banks.

#### IV. COMMUNICATION STRATEGIES AND INFLATION EXPECTATIONS

Pre-Abenomics, unconventional monetary policy communication focused on exploring the so-called “duration effect.” The duration effect was intended to influence market expectations about the future course of monetary policy, and hence stabilize interest rates at a low level and lift inflation expectations.<sup>16</sup> Initially, under QEP, the BoJ communicated that monetary easing would “*continue until the CPI (excluding perishables) registers stably a zero percent or an increase year on year.*”<sup>17</sup> While this commitment reduced uncertainty about the policy rate and laid out relatively clear exit conditions, it was largely backward looking and did not tie policy to a price stability target.

This was to some degree reversed with the introduction of the “two-perspective approach” in 2006 which anchored policy guidance in a medium-term numerical “understanding” of price stability. For instance, when introducing CE in 2010, the BoJ stated that it would “*maintain the virtually zero interest rate policy until price stability is in sight on the basis of the “understanding of medium- to long-term price stability.”*” While this guidance was better tied to the price stability objective and hence more forward looking, it was more ambiguous regarding exit conditions.

The BoJ’s communication strategy changed drastically with the introduction of the two percent inflation target in 2013. The new communication strategy focused on quickly re-anchoring inflation expectations at the higher price stability target. First, by promising to achieve the price stability target “*at the earliest possible time, with a time horizon of about two years,*” the BoJ deviated from its previous position that price stability should be pursued over the medium to long-term.<sup>18</sup> Second, the time-dependent guidance indirectly implied an almost unconditional commitment to price stability, effectively deprioritizing other

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<sup>15</sup> See International Monetary Fund (2020a, 2020b) for recent monetary policy developments.

<sup>16</sup> See Fujiki and Shiratsuka (2002).

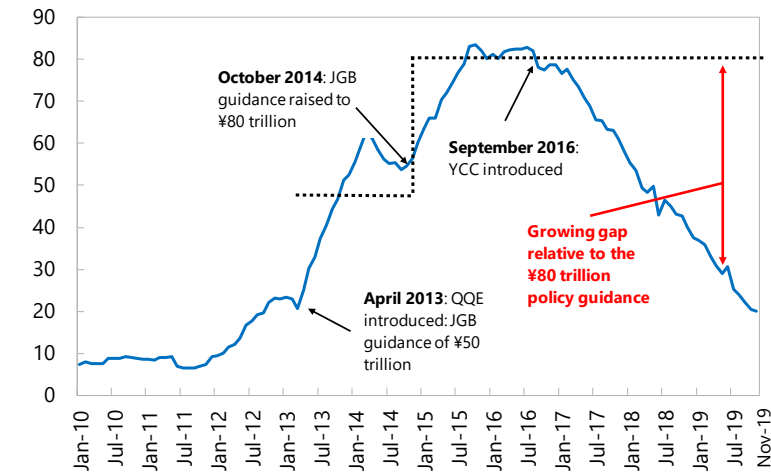
<sup>17</sup> See [https://www.boj.or.jp/en/announcements/release\\_2001/k010319b.htm/](https://www.boj.or.jp/en/announcements/release_2001/k010319b.htm/)

<sup>18</sup> See [https://www.boj.or.jp/en/announcements/release\\_2012/k120214b.pdf](https://www.boj.or.jp/en/announcements/release_2012/k120214b.pdf)

objectives. Third, by committing to the massive increase in JGB purchases, the BoJ showed that it was willing to back up its verbal commitment to the inflation target with strong and transparent policy actions.

The 2016 shift to a gradual reflation approach under YCC required the BoJ to once again adjust its communication strategy. In line with the new gradual reflation approach under YCC, the time horizon for achieving the inflation target was gradually de-emphasized. Moreover, BoJ Board members began to acknowledge financial side-effects more prominently, while arguing that the new framework was more flexible and sustainable. In addition to YCC, the BoJ also tried to make inflation expectations more forward-looking by committing to expand the monetary base until the inflation target was achieved (e.g., the so-called *overshooting commitment*). Policy guidance, however, became more complicated. Despite switching operationally from quantity to interest rate targeting under YCC, the BoJ was reluctant to abandon its quantitative guidance on JGB purchases. This resulted in a growing discrepancy between the quantity guidance and actual JGB purchases (see text figure).

**Japan: Annual Change in the BoJ's JGB Holdings, 2010-19**  
(Trillion Yen)



Source: Haver Analytics.

In 2018, speculation of a premature normalization prompted the BoJ to introduce explicit forward guidance on policy rates. In response to upward pressure on the 10-year JGB yield in the summer of 2018, the BoJ increased the variability range around the zero percent yield target and strengthened its commitment to achieving 2 percent inflation by introducing forward guidance for policy rates. Initially, the forward guidance was time-dependent to ensure that rates would remain low beyond the implementation of the scheduled October 2019 consumption tax rate increase. However, in the fall of 2019, the BoJ shifted to a more state-based guidance by committing to keep short- and long-term interest rates low “*as long as it is necessary to pay close attention to the possibility that the momentum toward achieving the price stability target will be lost.*”

## V. POLICY COORDINATION

Coordinating monetary and fiscal policies can be a powerful way to help stimulate activity and generate inflation, particularly when conventional monetary policy tools are constrained.

However, due to a number of factors, policy coordination in Japan has proven difficult, especially in the pre-Abenomics period.

First, with a growing public debt and a rapidly aging population, the government has been reluctant to commit to fiscal stimulus on a sustained basis. Instead, a primary objective has been to stabilize debt dynamics by committing to medium-term consolidation. Moreover, there appears to be a broad understanding that short-term fiscal support should and will be paid for by higher taxes or lower spending in the future. Such an underlying commitment may reduce the effectiveness of fiscal support as economic agents will save the short-term windfall to pay for higher taxes later.<sup>19</sup>

Second, the BoJ's willingness to provide monetary policy support appears to have been affected by the Bank's desire to protect its independence, particularly in the pre-Abenomics period. For instance, with fiscal support constrained, the government has frequently argued in favor of more expansionary monetary policy to exit deflation. To safeguard the perception of its autonomy, the BoJ has been reluctant to give in to such pressure. This was particularly evident during the two normalization episodes in 2000 and 2006.<sup>20</sup> Before QQE, the BoJ also appeared to be reluctant to engage in large-scale quantitative easing due to concerns of fiscal monetization. Even during Abenomics, the BoJ appeared to carefully argue that perceptions of fiscal monetization may hurt the BoJ's credibility and erode fiscal discipline.

Finally, the BoJ has consistently made the case that reflating the economy cannot only be done through monetary policy. Instead, monetary support needs to be complemented by structural reforms to reverse the decline in potential growth and boost competitiveness. However, the government has been slow in implementing needed reforms. This structural reform inertia may reflect political difficulties to pass unpopular reforms during unfavorable economic conditions and lack of urgency during economic upswings.<sup>21</sup>

Recognizing these obstacles to effective policy coordination, the BoJ, the Ministry of Finance, and the Cabinet Office published a joint statement in January 2013, committing to strengthen policy coordination.<sup>22</sup> The BoJ raised its price stability target from 1 to 2 percent and committed to achieve the target as soon as possible. The government, in turn, promised to implement flexible fiscal policy and formulate measures to strengthen competitiveness and the growth potential of the Japanese economy. Interestingly, the higher inflation target may not have reflected a substantial change in the BoJ's views on the inflation level consistent

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<sup>19</sup> For instance, the fiscal stimulus in 1995 was implemented under an explicit commitment to raise the consumption tax in 1997 (see Ito, 2004).

<sup>20</sup> For instance, in August 2000, the government formally requested the BoJ to postpone its decision to exit ZIRP, but was overruled by the BoJ's Board.

<sup>21</sup> While it is beyond the scope of this paper, a comprehensive policy package that highlight the coordination of fiscal and monetary policy with structural reforms would also increase the chance of reaching the inflation target (IMF 2016, 2017, 2018, 2020a; Colacelli and Fernandez-Corugedo, 2018).

<sup>22</sup> *Joint Statement of the Government and the Bank of Japan on Overcoming Deflation and Achieving Sustainable Economic Growth* ([https://www.boj.or.jp/en/announcements/release\\_2013/k130122c.pdf](https://www.boj.or.jp/en/announcements/release_2013/k130122c.pdf)).

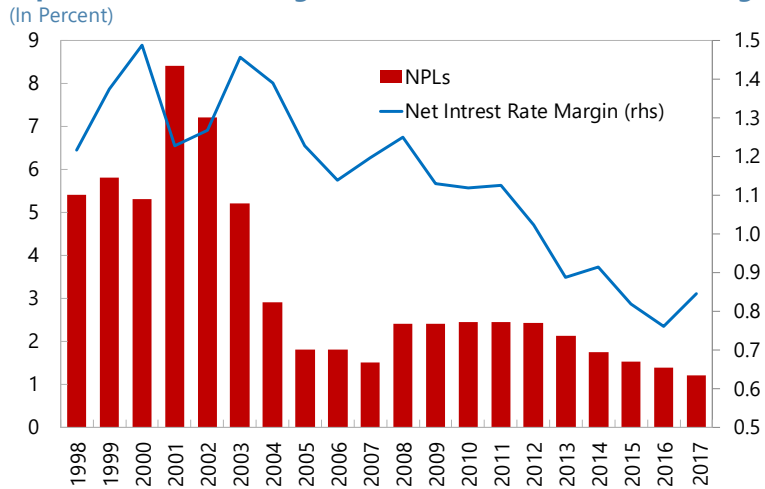


with price stability (i.e., one percent). In fact, the two percent target was seen as conditional on government efforts to boost growth and implement needed reforms. Moreover, the government did not loosen up its commitment to medium-term consolidation. Instead, the government re-enforced its commitment by pledging to “*promote measures aimed at establishing a sustainable fiscal structure with a view to ensuring the credibility of fiscal management.*”

Coordination between monetary and financial sector policies has also affected BoJ’s ability to reflate the economy. Indeed, the health and stability of the financial sector is not only important because of its direct impact on growth and general soundness of the economy, but also because of its impact on the effectiveness of the monetary policy transmission. For instance, the slow response by the government to address the non-performing loan (NPL) problem in the late 1990s reduced the effectiveness of QEP during the early 2000s. Today, the problem is no longer high NPLs.

Instead adverse demographic trends and a chronic low interest rate environment have resulted in a gradual decline in the net interest rate margin of banks (text figure). The consequent low profitability of financial institutions—with its potential to erode capital buffers and increase risk taking—has been a growing concern for the sustainability of the BoJ’s prolonged monetary accommodation.

**Japan: Non Performing Loans and Net Interest Rate Margin**



Source: FRED.

## VI. LESSONS LEARNED AND WAY FORWARD

Based on the BoJ’s twenty years of reflation experience, there are a number of measures that could be taken to strengthen the overall monetary policy framework. In particular, the BoJ could: (i) clarify its commitment to the inflation target while increasing policy flexibility to address competing objectives, (ii) improve the internal decision-making process, and (iii) simplify and strengthen its communication framework. In addition, more effective policy coordination between the BoJ, the government, and the Financial Services Agency (FSA) will be essential for reaching the inflation target in a stable and timely manner.

### A. Policy Objectives and Goals

The lack of stability and clarity of policy objectives have complicated policy implementation and hampered reflation efforts. During the early years, the relatively large weight on the



financial stability objective combined with the absence of a clear price stability target may have contributed to insufficient monetary stimulus and a bias towards premature policy normalization (e.g., the 2000 and 2006 episodes). On the other hand, the large relative weight on price stability combined with an over-optimism to achieve the inflation target during the QQE/NIRP/YCC period has likely negatively affected policy credibility and contributed to keeping inflation expectations persistently low. In particular, the emphasis on achieving the price stability target “as soon as possible” together with unrealistic inflation forecasts have been particularly problematic given limited policy space, clogged monetary transmission, and rising financial stability costs. Finding the right balance between the price and financial stability objectives and setting realistic conditions for achieving the inflation target is key to improve policy credibility and better anchor long-run inflation expectations.

The BoJ should consider strengthening and clarifying its commitment to the target while increasing policy flexibility to address financial stability concerns. Specifically, the BoJ could announce a comprehensive review of its price stability objective—similar to the reviews conducted in 2000, 2006, and 2013. The review would allow the BoJ to:

- *Re-confirm or re-evaluate the inflation level viewed as consistent with price stability.* Moreover, the BoJ should clarify that the price stability target will be achieved over the medium- to long-term. This would help dispel a lingering perception that the BoJ is trying to achieve the two percent target as soon as possible regardless of the short-term costs.
- *Introduce a range around the inflation target.* This would enable a more gradual reflation process that is more consistent with realistic inflation projections while also providing more flexibility to credibly address financial side-effects.
- *Better communicate its views on the trade-offs between financial stability and price stability objectives.* The BoJ should clarify that it is not excessively focused on inflation, but that other objectives, including financial stability, also matter for monetary policy. This would help avoid speculation of premature normalization and a loss of credibility when financial stability costs rise.

The re-evaluation of the inflation target and introduction of greater policy flexibility would need to be carefully communicated. A target range and a longer time horizon would allow the BoJ to more effectively take into account: (i) downward pressure on inflation from structural forces; (ii) limited available policy space; and (iii) financial sector side-effects. However, these adjustments could be interpreted as a reduced commitment to the inflation target and hence depress inflation expectations. It is therefore crucial to communicate these adjustments in a careful and systematic manner. For instance, an announcement of a comprehensive review of the price stability objective would allow the BoJ to clearly lay out the underlying motivation and rationale for the changes. Indeed, the BoJ could replicate the communication strategy of YCC, which successfully allowed the Bank to reduce JGB purchases without

triggering policy normalization concerns.<sup>23</sup> Moreover, the BoJ could point out that introducing a target range and a longer time horizon is largely consistent with the practice of some other major central banks. Indeed, as shown in Table 1, several major central banks specify a tolerance range around their inflation target while emphasizing the medium- to long-term nature of the target horizon (also see Anand et al. 2019).

## **B. Policy Strategy and Communication**

Policy decisions should be more forward looking and better tied to policy goals. As argued by Governor Kuroda, the BoJ's pre-Abenomics commitment to reflation was at times ambiguous and likely rendered monetary policy insufficient to raise inflation expectations.<sup>24</sup> The absence of an explicit long-term price stability target in the early days may have complicated policy discussions and the ability to manage inflation expectations.<sup>25</sup> In addition, there appears to have been a tendency to place a large weight on current instead of future economic conditions when setting policy. This is particularly problematic given that monetary policy works with a lag. Moreover, discussions during policy deliberations tend to focus on current policy settings rather than the entire future policy path. Indeed, these features of the decision-making process may partly explain the premature nature of the two normalization episodes (2000 and 2006) and the delayed response to the GFC. The “two-perspective approach” implemented in 2006 and the subsequent clarifications of the numerical value of the price stability target clearly improved matters. However, even today, it is unclear how policy decisions are systematically guided by the BoJ Board's economic forecasts and the two percent inflation target.

The communication strategy under Abenomics has at times been overly ambitious, ambiguous, and complicated. The commitment to achieve the inflation target in 2013 was an improvement and stood in sharp contrast to the pre-Abenomics period. However, one potential drawback was that the commitment was likely too extreme, hence resulting in reduced policy credibility. In particular, by communicating an unrealistic target horizon and overselling the available policy space to stimulate the economy, the public gradually come to discount the BoJ's ability to achieve the inflation target. Moreover, communication during the QQE/NIRP/YCC period did not adequately ensure policy predictability and probably added to policy uncertainty and ambiguity. This was perhaps best illustrated by the surprise implementation of the NIRP, and the BoJ's reluctance to remove redundant policy guidance when changing the policy framework (i.e. keeping both quantitative and interest rate

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<sup>23</sup> One of the problems facing the BoJ is that increasing policy flexibility is much harder to communicate when inflation expectations are not well anchored at the target. For instance, the Reserve Bank of New Zealand only introduced a target range once the inflation target had been achieved.

<sup>24</sup> See [https://www.boj.or.jp/en/announcements/press/koen\\_2017/ko171114a.htm/](https://www.boj.or.jp/en/announcements/press/koen_2017/ko171114a.htm/)

<sup>25</sup> As pointed out by Orphanides (2018), the lack of definition for price stability implied that BoJ Board members could use their discretion to define the inflation goal. The obvious problem with such a situation is that alternative policy goals imply different policy settings.

guidance under YCC). Overall, there is a need for the BoJ to better explain how its policy strategy can achieve the price stability target based on current and forecast economic conditions. Indeed, anchoring long-run inflation expectations at the 2 percent target critically depends on whether the public believes that the BoJ's policy strategy and associated actions are consistent with achieving the target.

Implementation of Inflation Forecast Targeting (IFT) could strengthen the policy decision process and the BoJ's ability to manage inflation expectations. The IFT framework was originally proposed by Svensson (1997) and has since been adopted by a number of central banks.<sup>26</sup> IFT provides an intuitive and structured approach to policy making which enables a central bank to effectively communicate its strategy and manage expectations.<sup>27</sup> The following adjustments could be made in the case of the BoJ:

- *Strengthen the decision-making process.* In preparation for a monetary policy meeting (MPM), BoJ staff could construct inflation and growth forecasts based on given policy rate-paths and the latest economic information.<sup>28</sup> These forecasts and associated policy paths would then be presented to the Board members at the MPM. They would vote on which policy path best fulfills the BoJ's mandate.<sup>29</sup> Hence, in contrast to today's practice, the Board's decision would not just take into account changes to current policy tools, but also the entire future path of policy decisions.
- *Publish the policy path and the associated economic forecast.* Following the policy decision, the policy path and corresponding economic forecast should be published in the BoJ's *Economic Outlook Report*. In addition, a detailed discussion to motivate the policy path and the forecast is crucial to make them credible. The outlook report should also discuss alternative scenarios to clarify implications of selected shocks. This would help generate a better understanding of the BoJ's approach to managing macroeconomic risks, and thus help improve policy predictability. It would also reinforce that the baseline forecast of the policy path is conditional on economic developments.
- *Simplify the communication strategy.* To improve communication with financial markets and the public, the BoJ needs to simplify its policy guidance. For instance, while the BoJ finally abandoned the quantity guidance on JGB purchases in April 2020, the inflation overshooting commitment should be de-linked from the monetary base. Note that if the

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<sup>26</sup> See Clinton et al (2015).

<sup>27</sup> This discussion closely follows Svensson (2019) and Arbatli et al (2016).

<sup>28</sup> While Svensson (2019) discusses an exogenous policy rate path, Clinton et al (2015) advocates for an endogenously determined policy rate path that is determined by a reaction function.

<sup>29</sup> Note that while the forecast is a key input into the policy decision, the process does not exclude individual Board members from incorporating their own judgment.

BoJ was to publish the policy path associated with the forecast, then the forward guidance currently applied to policy rates would be redundant.

Inflation Forecast Targeting has been fully or partially adopted by other major central banks and would not constitute a drastic change from the BoJ's current practices. Presently, the BoJ publishes economic projections by individual Board members that takes into account the effects of past policy decisions and financial market expectations regarding future policy. Hence, the forecasts do not incorporate the current policy decision or the Board's view on future policy settings. Adopting the IFT framework would imply a discontinuation of this practice in favor of publishing a staff forecast that is consistent with the Board's view on current and future policy decisions. A commonly-voiced concern is that removing individual Board members' projections would reduce transparency (i.e., the public can no longer observe the diversity in views). This concern could be addressed by allowing dissenting views to be reflected in the *Summary of Opinions*—currently published shortly after a MPM. Importantly, the guiding principles behind IFT are similar to the BoJ's existing guidelines for the conduct of monetary policy. Indeed, publishing the baseline staff forecast together with alternative risk scenarios could be viewed as a quantification of the “two-perspective approach” currently employed. Finally, IFT has been adopted by a number of central banks in both emerging and advanced countries. Table 2 shows the publication policies by selected central banks regarding the baseline forecast, the associated policy path assumption, and risk assessments. Indeed, most central banks publish both the baseline forecast as well as the assumed underlying policy path.

### C. Policy Coordination

Monetary-fiscal policy coordination has been hampered by the absence of an effective commitment mechanism. Perhaps the most serious obstacle to a coordinated monetary-fiscal policy support has been the presence of a policy coordination failure. On the one hand, the BoJ's strong defense of its independence and fear of perceived fiscal monetization may have resulted in a reluctance to provide large-scale quantitative easing even when economic conditions so warranted. Moreover, the Bank has long argued that supportive fiscal policy and structural reforms are key to reflating the economy. Meanwhile, the government has argued that the high public debt limits fiscal support and that more aggressive monetary stimulus is needed to exit deflation and generate a more conducive environment for passing unpopular reforms.

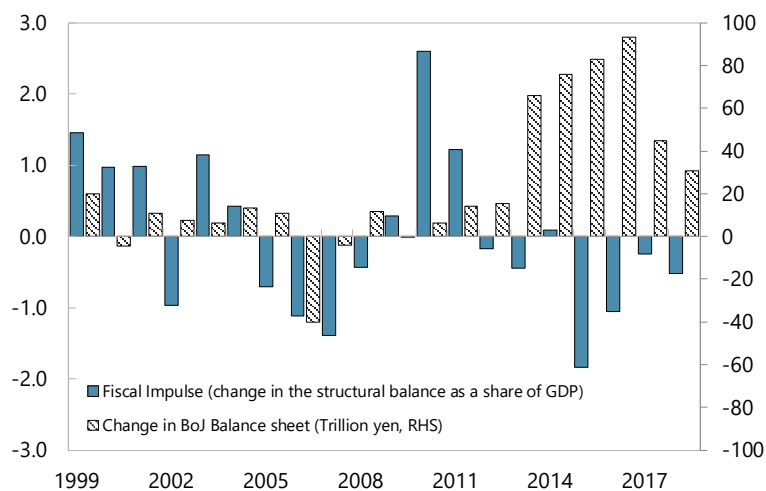
**Table 1. Japan: Monetary and Financial Stability Objectives and Goals of Selected Central Banks**

Central Bank	Monetary Policy		Financial Stability Objective	Macroprudential Policy Responsibility
	Objective(s)	Target/range		
<b>Reserve Bank of Australia (RBA)</b>	Price stability (taking into account activity and employment levels)	2-3 %	Medium-term average	<i>Council of Financial Regulators</i> (incl. RBA). Power resides with members. Australian Prudential Regulation Authority (APRA) is responsible for MaPP
<b>Bank of Canada (BoC)</b>	Price stability	2% +/-1%	Six to eight quarters depending shock persistence	Powers over macroprudential tools lie with the Department of Finance and OSFI.
<b>Bank of England (BoE)</b>	Price stability	2 % target; Letter to Government if outside 1-3%	None	BoE's <i>Financial Policy Committee (FPC)</i> identifies, monitors and takes action to remove or reduce systemic risks.
<b>Bank of Japan (BoJ)</b>	Price stability	2%	As soon as possible	The <i>Financial Services Agency</i> is the designated regulatory and supervisory authority for all financial institutions and responsible for the implementation of macroprudential policy in Japan. The BoJ also assesses systemic risks and conduct on-site examinations and offsite
<b>European Central Bank (ECB)</b>	Price stability	Below 2 %	Medium-term	Macroprudential policy is a shared competency between national authorities and the ECB.
<b>Reserve Bank of New Zealand (RBNZ)</b>	Price stability and maximum sustainable employment	2% +/-1%	Medium-term with a focus on keeping future inflation near the 2 percent mid-point	<i>RBNZ</i> is responsible for macroprudential policy. Ministry of Finance is consulted ahead of policy decisions.
<b>Riksbanken</b>	Price stability	2 % with a variation band of 1-3%	None	<i>Financial Stability Council</i> (incl. Riksbanken). Powers reside with members. The Financial Supervisory Authority is responsible for MaPP
<b>U.S. Federal Reserve (U.S. Fed)</b>	Price stability and maximum employment	2%	Long-run goal	<i>Financial Stability Oversight Council (FSOC)</i> - includes all regulatory agencies (incl. the FRB). FSOC is consultative and powers reside with members.

Sources: IMF; BoC; BoE; BoJ; ECB; RBNZ; Riskbanken; and U.S Fed

The Joint Statement in 2013 by the government and the BoJ was an important attempt to address this coordination failure. However, the effort has not panned out as hoped. While monetary policy has largely lived up to its end of the bargain, fiscal policy support has been sporadic at best and structural reforms slow to progress. One potential explanation is that the government has preferred to use the fiscal space created by the BoJ's massive quantitative easing program to bring down the deficit instead of supporting reflation efforts and accelerate structural reforms. Indeed, as shown in the text figure, while the balance sheet of the BoJ has expanded sharply during Abenomics, the fiscal impulse has primarily been contractionary.

**Japan: Fiscal and Monetary Policy Coordination, 1999-2018**



Sources: Haver and IMF Staff Estimates

Potential measures to solve the policy coordination failure varies from re-visiting the 2013 joint commitment to introduction of more unorthodox policy packages.

- *Aligning policy goals.* The government and the BoJ could strengthen the January 2013 Joint Statement by making the 2 percent target a priority for the BoJ *and* the government. This might reduce the bias towards medium-term consolidation and allow fiscal policy to be more supportive of reflation efforts. Indeed, when the BoJ's Board discussed the language of the Joint Statement in January 2013, concerns were raised that unless the government would share the responsibility with the BoJ to achieve the 2 percent target, the effectiveness of the commitment might be limited.
- *Managing severe downside scenarios.* Another potential avenue is to lay out a coordination framework that is activated when the economy is faced with a large adverse shock. This could include a mechanism for providing money-financed fiscal stimulus as suggested by Bartsch et al (2019). Of course, such a framework would have to clearly define under what circumstances the mechanism would be activated and de-activated, and ensure that it does not undermine the BoJ's independence or erode fiscal discipline.
- *Unorthodox measures to reflate the economy.* More radical proposals to enhance policy coordination include committing to (i) "irresponsible" fiscal and monetary policy (Krugman, 2015), (ii) a fiscal monetization (Turner, 2015), (iii) an unbacked fiscal expansion tied to reaching the inflation target (Sims, 2016), and (iv) a price level target supported by a complementary exchange rate policy (Svensson, 2000). A common theme across these proposals is that they all reduce the real interest (despite the ZLB) by

inducing a sharp increase in inflation expectations. If, however, inflation expectations do not react strongly fast or if term premiums on longer-term interest rates rise sharply, the cost of these proposals may become too large in the short-term.

Closer coordination between the FSA and the BoJ could help mitigate financial sector side-effects and create more policy room for monetary policy. Given that financial stability issues have been an issue for the effectiveness and sustainability of monetary policy in Japan, effective coordination between the FSA and BoJ should be of the highest priority. As seen in Table 1, several countries where the financial stability mandate is shared by multiple agencies have opted to create coordinating bodies in which the central banks participate to varying degrees.<sup>30</sup> In Japan, the Council for Cooperation on Financial Stability (CCFS) was created in 2014 to enhance macroprudential cooperation between the BoJ and the FSA. However, as pointed out by FSB (2016) and IMF (2017), the role of the CCFS could be further strengthened and clarified. In particular, providing the CCFS with a formal mandate and clear objectives would increase accountability, ensure that the FSA and BoJ can act in a timely fashion, and mitigate possible conflicts between micro- and macroprudential policies. There is also more room to widen the cooperation between the BoJ and FSA when it comes to analytical work and information sharing arrangements.

## VII. CONCLUSIONS

The Bank of Japan has been at the forefront of global monetary policy innovation for the last two decades. The Bank's prolonged struggle to reflate the economy while maintaining financial stability provides important lessons for other central banks that are now finding themselves in a similar position. For example, the Reserve Bank of Australia adopted its own version of yield curve control (YCC) in March 2020, by setting a target on the 3-year interest rate of around 0.25 percent, with the commitment to buy Australian government bonds in the secondary market to achieve the target. In August 2020, the United States Federal Reserve (Fed) announced the adoption of Average Inflation Targeting (AIT). Similar to the BoJ's overshooting commitment, AIT implies that the Fed would allow inflation to remain above the target for a prolonged period in order for the *average* inflation rate to equal 2 percent.

Three main lessons can be drawn from the BoJ's twenty-year effort to reflate the Japanese economy. First, the importance of the BoJ's price stability objective (relative to financial stability) has increased over time, along with the clarity of the price stability target. This lack of stability and clarity of the BoJ's price stability objective has complicated policy implementation and hampered reflation efforts. Second, policy decisions have not been sufficiently forward-looking and could have been better tied to policy goals. This has likely

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<sup>30</sup> Following the GFC, a number of countries reformed their financial oversight frameworks to more effectively manage systemic risks in the financial system. A main feature of these reforms has been to allow central banks to play a more prominent role whether they serve as the main regulator or not. Indeed, there is empirical evidence that when the central bank is given an important role in the macroprudential framework, macroprudential policy instruments are used in a more timely fashion (Lim et al, 2013).

caused a bias towards premature normalization (e.g., exiting ZIRP in 2000 and QEP in 2006) and delayed stimulus when conditions deteriorated (e.g., late response to the GFC). Third, the BoJ's communication strategy has at times been overly ambitious, ambiguous, and complicated. Finally, the coordination between monetary, fiscal, and financial policies has been insufficient and at times counter-productive. Policy coordination failure and concerns about perceived infringement on institutional independence resulted in insufficient policy support before Abenomics and a one-sided stimulus during Abenomics.

A number of measures could be taken to strengthen the monetary policy framework and enhance policy coordination (International Monetary Fund 2020a, 2020b). First, the BoJ could consider increasing policy flexibility by introducing an inflation range target while emphasizing the medium- to long-term nature of achieving the price stability objective. This would allow the BoJ to more flexibly address competing policy objectives such as financial stability. Second, the BoJ could consider adopting Inflation Forecast Targeting, which would improve policy credibility and predictability by making monetary policy respond more systematically to deviations of BoJ's inflation forecast from the price stability target. The BoJ could also consider simplifying its policy guidance by de-linking the inflation overshooting commitment from the monetary base. Finally, a number of measures could be taken to strengthen policy coordination between monetary and fiscal policies. The 2013 Joint Statement should be used to its full potential to ensure that fiscal and monetary policies work in tandem toward mutually reinforcing objectives of growth and reflation. Moreover, closer coordination between the BoJ and the FSA is needed to better manage financial cycles and structural financial vulnerabilities. To this end, strengthening the macroprudential framework will be critical to ensure financial stability and make monetary accommodation more sustainable.



**Table 2. Japan: Publication of Forecasts and Risk Assessments by Selected Central Banks**

<b>Central Bank</b>	<b>Publication of Forecast</b>	<b>Policy Path Assumption</b>	<b>Publication of Risk Assessment</b>
<b>Reserve Bank of Australia (RBA)</b>	Staff forecast is published quarterly; No policy path assumption is published	Policy path is in line with financial markets	Uncertainty bands around forecast; Risks to the outlook discussed in detail.
<b>Bank of Canada (BoC)</b>	Staff forecast is published quarterly; No policy path assumption is published	Policy path endogenously determined within the model	Risks to outlook discussed in detail; Sometimes quantified risk assessments.
<b>Bank of England (BoE)</b>	Staff forecast is published quarterly; Policy path assumption is published	Two assumptions are used: The policy path is either (i) in line with financial markets or (ii) assumed to be constant.	Uncertainty bands around forecasts; Key judgments and risks; Occasional quantification of alternative risk scenarios.
<b>Bank of Japan (BoJ)</b>	Forecasts of individual Board members are published; No policy path is published	Policy path is in line with financial markets	General assessment of risks to the outlook.
<b>European Central Bank (ECB)</b>	Staff forecast published quarterly. Policy path assumption published	Policy path is in line with financial markets	Uncertainty bands around forecast; Quantification of alternative scenarios (e.g. oil price, and exchange rate path).
<b>Reserve Bank of New Zealand (RBNZ)</b>	Staff forecast published quarterly. Policy path assumption published	Policy path endogenously determined within the model	Key assumptions and uncertainties to the outlook; Alternative scenarios sometimes included.
<b>Riksbanken</b>	Staff forecasts published six times per year; Policy path assumption published	Policy path endogenously determined within the model	Detailed discussion of uncertainties and risks; Sometimes quantitative risk assessments and policy responses discussed.
<b>U.S. Federal Reserve (U.S. Fed)</b>	No monetary policy/inflation report; Projections by Board members published four times per year, including individual policy path projections.	Individual members pick a policy path deemed most likely to foster outcomes for economic activity and inflation that best satisfy the mandate.	The Fed does not publish a monetary policy report; No substantial risk assessment discussed in policy statement.

Sources: IMF; BoC; BoE; BoJ; ECB; RBNZ; Riksbanken; and U.S. Federal Reserve.

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