



June 19, 2014  
Bank of Japan

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## **The Conquest of Japanese Deflation: Interim Report**

*Remarks at the Athens Symposium  
"Banking Union, Monetary Policy and Economic Growth"*

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## **Introduction**

It is my great pleasure to be able to take part in these discussions with such distinguished panelist.

I hope you will forgive my presumption in borrowing the title of my remarks today from Nobel laureate Thomas Sargent's influential book, "The Conquest of American Inflation".<sup>1</sup> I would like to talk about the most important challenge facing the Bank of Japan at the moment, which is how to conquer deflation in Japan. However, before doing so, let me spend some time considering how we came to be struggling with this mild but persistent deflation.

### **I. Deflationary Equilibrium**

Japan's CPI began to dip into negative territory in 1998, and remained there on the whole for the next 15 years. This deflation has two distinctive features. One is its long duration, which clearly sets it apart from the usual business cycle frequency. The other is its mildness. For most of the time, deflation has remained at less than minus 1 percent on a year-on-year basis, except for very short spells such as the period just after the Lehman crisis.

Given the length of this deflation, some economists naturally argue that this is not a temporary disequilibrium phenomenon, but an indication that the equilibrium itself has shifted so that deflation prevails (Chart 1).<sup>2</sup> I am inclined to believe that this is the case, and that the equilibrium shift was triggered by the two huge shocks that hit Japan simultaneously in 1997: the banking turmoil and the Asian currency crises. The combination of two such shocks would be a severe challenge to any monetary authority trying to protect its economy from the threat of serious deflationary pressures. The banking turmoil was a particularly severe blow in that the ability of the credit intermediary function of the banking sector to support economic recovery was seriously impaired, and this in turn exacerbated the deflationary threat. Worse still, there was very little room to

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<sup>1</sup> Sargent, T. J. (1999): *The Conquest of American Inflation*, Princeton University Press, Princeton.

<sup>2</sup> Benhabib, J., S. Schmitt-Grohe and M. Uribe (2001): "The Perils of Taylor Rules," *Journal of Economic Theory*, 2001, 96 (1-2), pp. 40-69; Bullard, J. (2010): "Seven Faces of 'The Peril'," *Federal Reserve Bank of St. Louis Review*, September/October, pp.339-352.

cut the interest rate: the policy rate was already as low as ½ percent prior to these shocks hitting Japan.

Given the magnitude of these negative shocks, the question arises as to why deflation was so mild in Japan. There may be several determining factors,<sup>3</sup> but I believe that a decline in potential growth played an important role. Even before we began to struggle with deflation, potential growth in Japan had started to show a secular decline due to both an ageing and a falling trend in population, as well as a slowdown in capital formation. Thus, potential growth is estimated to have dropped to current levels of as low as ½ percent from about 4 percent in the early 1990s (Chart 2). This is not good news in itself, but it does help prevent the negative output gap from widening.

## **II. Lessons Learned**

What lessons can we learn from this experience? To avoid falling into deflationary equilibrium, especially in the face of huge negative shocks, I think that it is important for the authorities to adhere to the following three principles.

First, we definitely need to avoid a financial crisis. In 1997, we lacked a solid safety net such as a deposit insurance system and a bank resolution mechanism that could effectively deal with a systemic disruption. We failed to stop a large-scale banking crisis because these institutional frameworks were not in place. It was only in the wake of this painful experience that we set up a robust system for the prevention and management of financial crises.

Second, we need to keep a close eye on external events. In 1997, we underestimated the vulnerabilities of Asian economies and it took some time for us to realize the depth, magnitude and interconnected aspects of the Asian currency crisis.

Third, anchoring inflation expectations is critical for monetary authorities. We must not become complacent about seemingly stable long-run inflation expectations. This is because inflation expectations are inherently difficult to measure accurately and are

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<sup>3</sup> Another important hypothesis is that inflation has become less responsive to the output gap.

susceptible to downward shifts once low inflation is observed for a certain period of time (i.e. inflation expectations are formulated in an adaptive manner). We should be careful not to confuse the benefits of falling prices with necessary relative price adjustments. We need to maintain our credentials as deflation fighters as much as inflation fighters by showing clear and unequivocal commitment to overcoming deflation; should these credentials be lost, experience suggests that they are extremely difficult to regain. Furthermore, it is crucial that we show a "whatever-it-takes" stance to prevent inflation expectations from falling in the face of negative shocks. This is one of the motivations underlying the Bank of Japan's quantitative and qualitative monetary easing. Moreover, as we have repeatedly stated, we will not hesitate to make any necessary adjustments to our monetary policy if downward risks to inflation materialize.

Some observers have argued that Europe faces a significant risk of deflation, or at least low inflation. In my view, however, as exemplified by recent decisive action, the ECB has already made considerable progress in the three areas I have mentioned.

### **III. Getting Out from Deflationary Equilibrium**

The story so far has been about prevention, but, today, I also would like to talk about how far we have progressed in breaking free of the deflation trap (Chart 3). Inflation has risen steadily in Japan. Excluding food and energy, the April figure for CPI inflation is 2.3 percent, or around 0.8 percent if we subtract the effects of the hike in the consumption tax rate. Admittedly, this is still only halfway to achieving the target of stable 2 percent, but the situation has changed dramatically from when we started the quantitative and qualitative monetary easing about a year ago.

As I have emphasized elsewhere,<sup>4</sup> we need to provide a sufficient *escape velocity* to the economy in order to break free of deflationary equilibrium. To achieve this escape velocity, we need to employ all the policy measures in our arsenal. As for monetary policy, the Bank of Japan introduced its decisive quantitative and qualitative monetary easing

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<sup>4</sup> Nakaso, H. (2014): "What the Lost Decades Left for the Future," Keynote speech at the 2014 International Conference held by the International Association of Deposit Insurers, Asia-Pacific Regional Committee, April 23, 2014.

[http://www.boj.or.jp/en/announcements/press/koen\\_2014/ko140423a.htm](http://www.boj.or.jp/en/announcements/press/koen_2014/ko140423a.htm)

measures, which comprise a strong commitment to price stability and the powerful suppression of the entire yield curve. As for fiscal policy, the government simultaneously launched an expansionary policy, partly through a supplementary budget, while taking due account of long-term fiscal sustainability. In trying to escape from deflationary equilibrium, I believe that the monetary and fiscal policies that used to be conducted independently under an inflationary equilibrium, need to be pursued using a different approach. The joint statement issued by the Bank and the government in January last year may have been playing an important role as a *coordination device* to enable the collective conduct of monetary and fiscal policies. This joint statement is an important foundation of Abenomics.

Close cooperation between monetary and fiscal authorities can be observed not only in Japan, but also in other areas where unconventional monetary policy has been deployed.<sup>5</sup> For instance, when the Bank of England introduced its Asset Purchase Facility, a letter from the Chancellor made it clear that the British government would provide an indemnity to cover any losses arising from the Facility.

However, this close cooperation does not necessarily imply the loss of central bank independence for the following two reasons. First, a clear mandate of inflation targeting guarantees active monetary policy down the road. The zero lower bound on the nominal interest rate ties the hands of central bankers when it comes to deflation. As for inflation, central bankers can and should adjust policy rates flexibly if inflation is likely to stay above the stated target. Second, governments well understand the importance of fiscal prudence. In the recent G20 communiqué, the respective governments made a firm commitment to maintaining fiscal sustainability. As the second arrow of Abenomics, the Japanese government has already made an important step forward in this respect by raising the consumption tax rate in April this year.

Presumably because of this commitment to fiscal sustainability, survey figures for long-run

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<sup>5</sup> Kohn, D. L. (2009): "Interactions between Monetary and Fiscal Policy in the Current Situation," Speech at the Conference on Monetary-Fiscal Policy Interactions, Expectations, and Dynamics in the Current Economic Crisis, Princeton University, May 23, 2009.

inflation forecasts in advanced economies have not increased to levels much above targeted inflation rates, although these figures are subject to considerable uncertainty, as I mentioned before. These forecasts for Japan have not yet reached even 2 percent, although they do seem to be on a steady rising trend.

#### **IV. Importance of Raising Potential Growth**

Since I have talked about the first and the second arrows of Abenomics, let me touch upon the third arrow before concluding my presentation.

As I mentioned, the decline in potential growth in Japan has limited the range of the negative output gap. Together with demand recovery, lower potential growth seems to be contributing to the recent rise in inflation through the tighter capacity constraint. In fact, the latest output gap is estimated to be largely balanced (Chart 4). We often hear anecdotes of capacity constraint, especially those related to labor shortages, partly because the current economic recovery is driven primarily by the non-manufacturing sector, which is inherently more labor intensive and thus absorbs more workforce than otherwise.

Under these circumstances, raising potential growth is of vital importance. What we envisage by achieving price stability is the sound development of the national economy.<sup>6</sup> In other words, stable inflation should be attained with robust growth, accompanied by healthy job creation and reasonable wage hikes. Low potential growth does not bode well for this scenario, even if, *ceteris paribus*, it contributes to raising inflation through the capacity constraint.

This argues more imminently in favor of supply-side policies such as the third arrow of Abenomics. Ambitious labor market reforms, decisive deregulation and strong governance reforms are all supposed to raise potential growth effectively through increasing both labor and capital inputs, as well as by improving total factor productivity. They are indeed what the Japanese government intends to deliver, and I think it has made steady

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<sup>6</sup> The Bank of Japan Act states "Currency and monetary control by the Bank of Japan shall be aimed at achieving price stability, thereby contributing to the sound development of the national economy." (Article 2)

progress in this respect, including its revised growth strategy that will be announced by the end of this month.

In the meantime, the success of our monetary policy in achieving the 2 percent price stability target would help the transition from deflationary equilibrium, where disinvesting and saving used to be considered virtues, to inflation equilibrium, where the revival of *animal spirits* generates fixed business investment that in turn contributes to elevating potential growth.

### **Concluding Remarks**

Perhaps we are getting a bit too far ahead of ourselves here. For us, the immediate challenge still remains how to deliver stable 2 percent inflation, and discussion of the situation after that may be premature at this stage. After all, there is no point counting our chickens before they are hatched. That is why I put "interim report" in the title of my presentation today, hoping that I can report to you "mission complete" someday, hopefully in the not too distant future.

Thank you.



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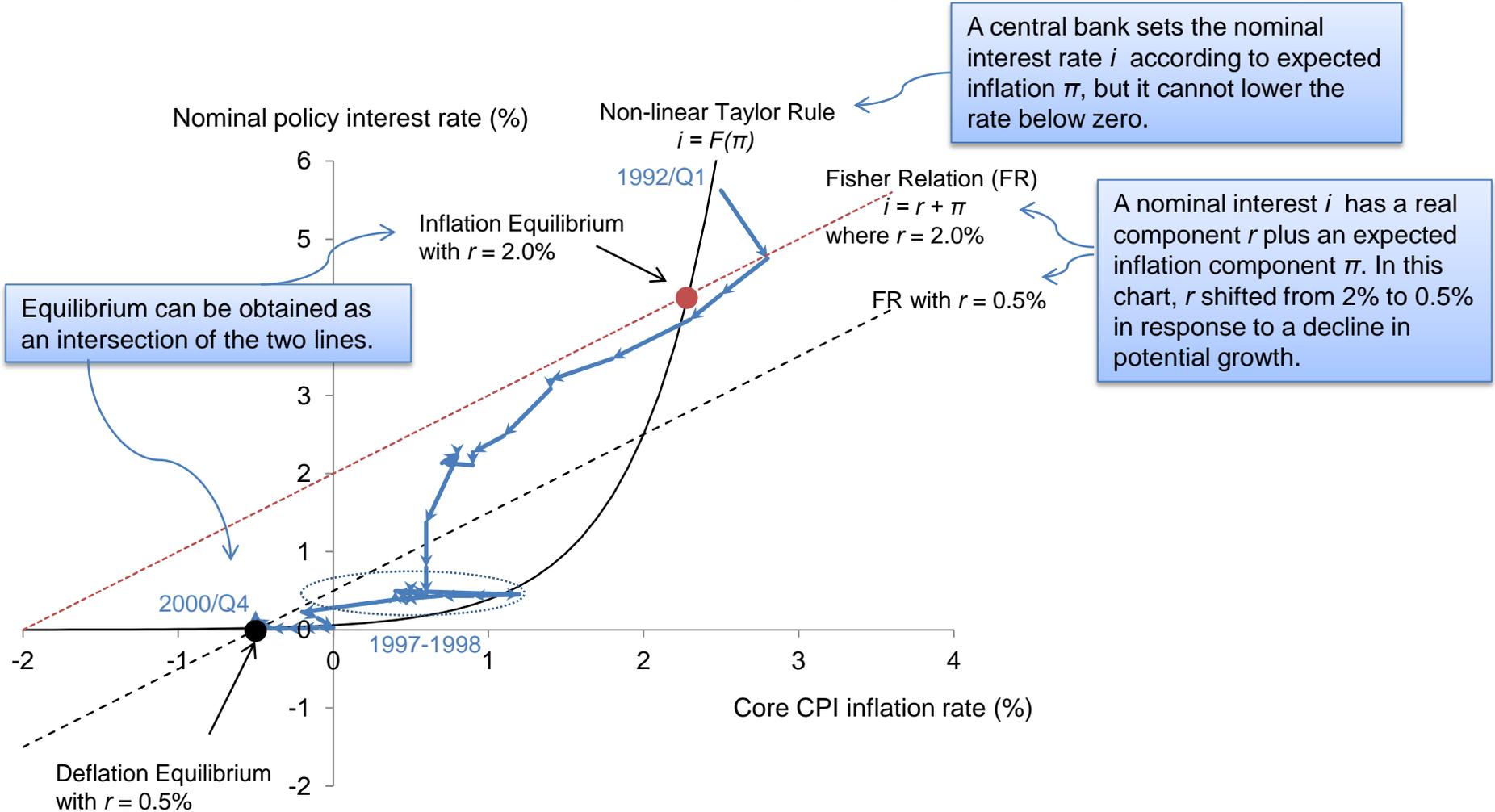
"Banking Union, Monetary Policy and Economic Growth"

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# (Chart 1)

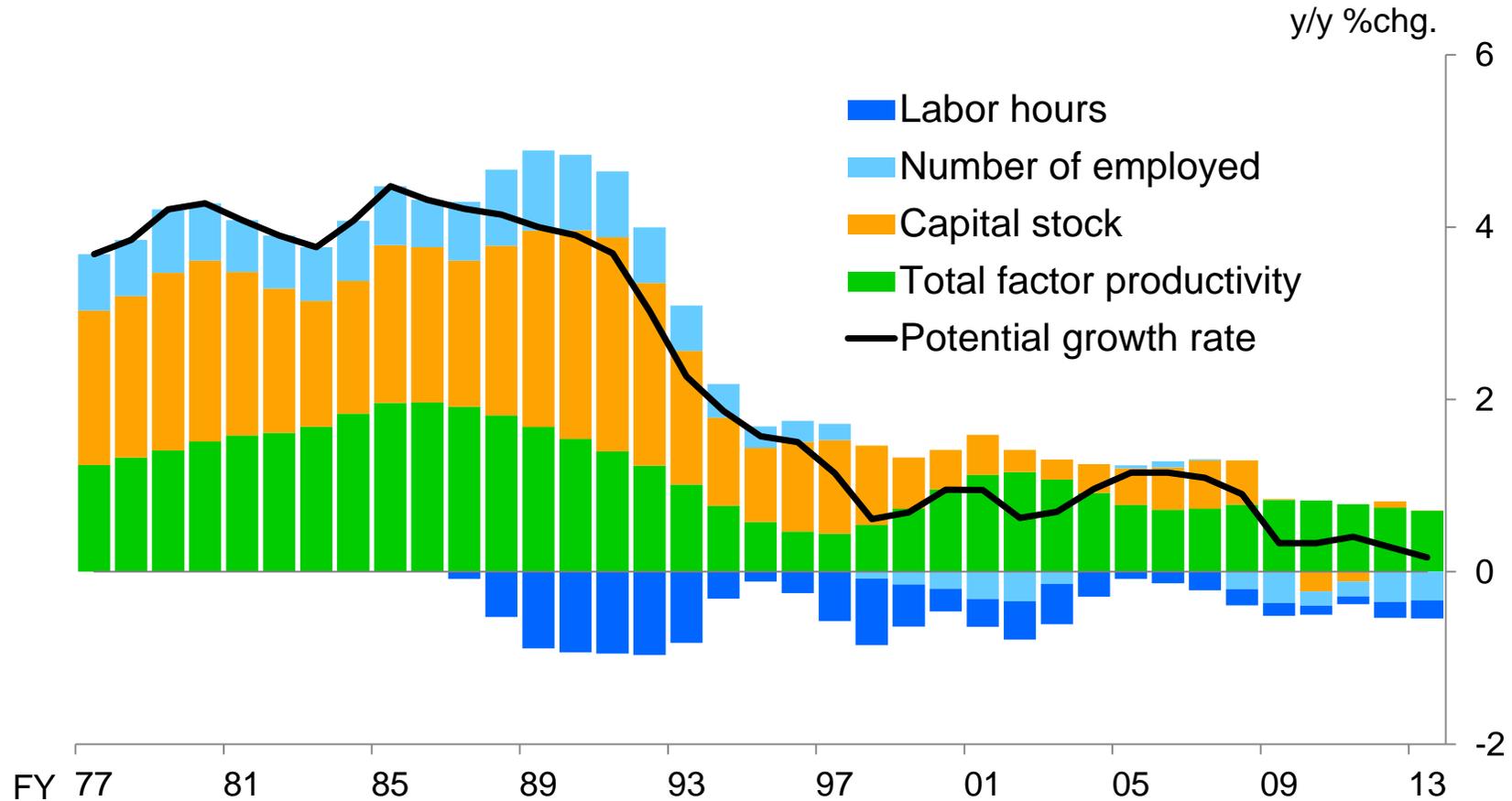
## Transition to the Deflationary Equilibrium in Japan



Note: Core CPI inflation rate, which is a proxy of expected inflation, is defined as CPI excluding food and energy.

(Chart 2)

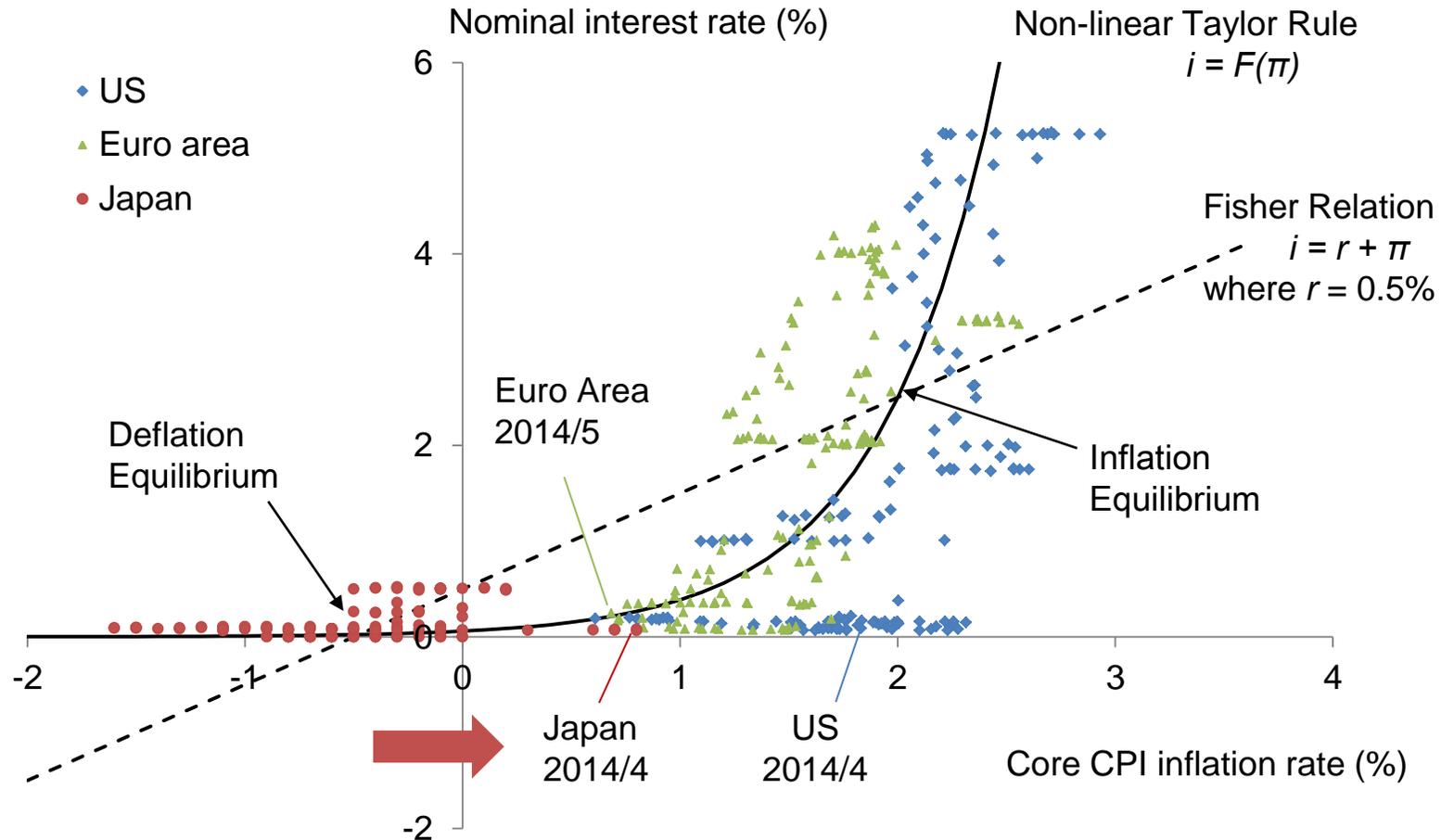
# Potential Growth



Source: BOJ staff estimate.

# (Chart 3)

## Inflation and Deflation Equilibrium

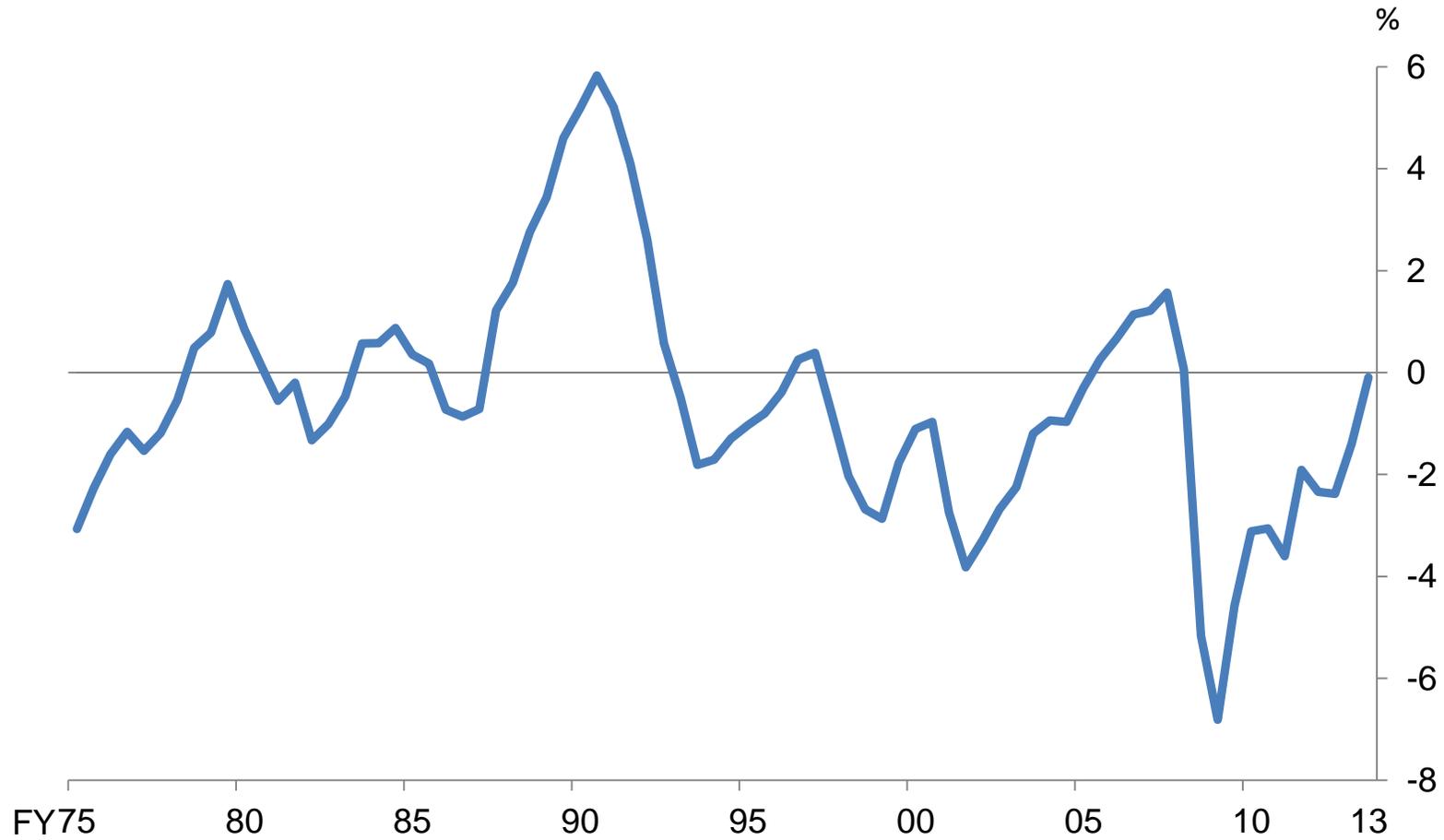


Note: Dots are data plots of nominal interest rate and core CPI inflation rate from January 2002 to April/May 2014. Core inflation is defined as CPI excluding food and energy.

Source: Bullard, J. (2010): "Seven Faces of 'The Peril'," *Federal Reserve Bank of St. Louis Review*, September/October, pp.339-352

(Chart 4)

# Output Gap



Source: BOJ staff estimate.