

## *Options for Kick-Starting Economy amid Risks of Worsened Deflation*

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- Quantitative Easing Urgently Needed
- Deflation Showdown Looms
- Lower Social Insurance Premiums also Essential
- Below-Trend Economic Activity Inevitable
- BOJ Should Raise Target Level for Prices
- Hike Consumption Tax and Use Ecotax for Social Security

Last November 20, Economic and Fiscal Policy Minister Naoto Kan declared that the Japanese economy was in the grip of deflation. However, it would be more accurate to say that deflation has plagued the economy continuously for nearly fifteen years since 1995. Although real economic growth remained generally positive between 1995 and 2008, nominal GDP has remained flat at around 500 trillion yen. This means that the GDP deflator, which gauges prices in the overall economy, has been falling.

With nominal growth continuing stubbornly flat in this way, the Japanese economy deteriorated even further when the global economic crisis struck. Nominal GDP in 2009 Q4 was 474 trillion yen, 43 trillion yen below the pre-crisis peak marked in 2008 Q1. This means per-capita annual income fell by more than 300,000 yen and obviously indicates no improvement in the recession.

The JCER Monetary Research Unit, which I led, has made a broad study of macroeconomic issues related to monetary policy. Our present study focused on the risks of a further worsening deflation and it reports solutions to the deflation problem.

Prices have continued to fall despite a recovery in production because inadequate demand has kept capacity utilization rates for labor and capital far below normal. Even if companies cut overtime and stop hiring, they would still have excess staff, and if they have extensive idle facilities, downward pressure will be put on wages and prices. This shortfall in demand is so-called the “deflationary (or negative GDP) gap”.

We estimated the Phillips curve which takes account of the macroeconomic capacity utilization rate in order to predict the outlook for consumer prices (as gauged by the core-core CPI, which excludes foodstuffs and energy). We estimate potential GDP as the level of Non-Inflation-Rate-Accelerating GDP which can be produced by using Japanese labor force and Japanese capital stock data. We then consider the divergence from actual GDP as an indicator of the macroeconomic capacity utilization rate. The nation's actual GDP has fallen chronically short of potential GDP, and this is the principal cause for continued deflation.

In order to predict the trend of future prices, we need to forecast future real GDP and potential GDP. For real GDP growth forecasts, we have used the estimates reported in the JCER Quarterly Forecast of the Japanese Economy (No. 141 of February 23). Our figures for the potential GDP growth forecasts are derived by the estimated macroeconomic production function.

Japan's potential GDP growth rate has been gradually falling due to the decline in potential labor inputs, which have eroded as the labor force population has declined. Owing to the rapid decline in nonresidential fixed investment during the global financial crisis, moreover, the capital stock growth rate has also fallen, in turn bringing down potential capital inputs. Thus even though productivity has continued to improve, the economy's potential GDP growth rate plummeted from 0.7% in 2008 Q1 to 0.1% in the 2009 Q3 (Figure 1). As we expect nonresidential fixed investment to improve somewhat thanks to the economic recovery, we estimate the potential GDP growth rate at 0.42%, which is the average for the most recent two years (or 2007 Q4 through the 2009 Q3).

**Figure 1. Contributions to Potential GDP Growth Rate (quarterly)**

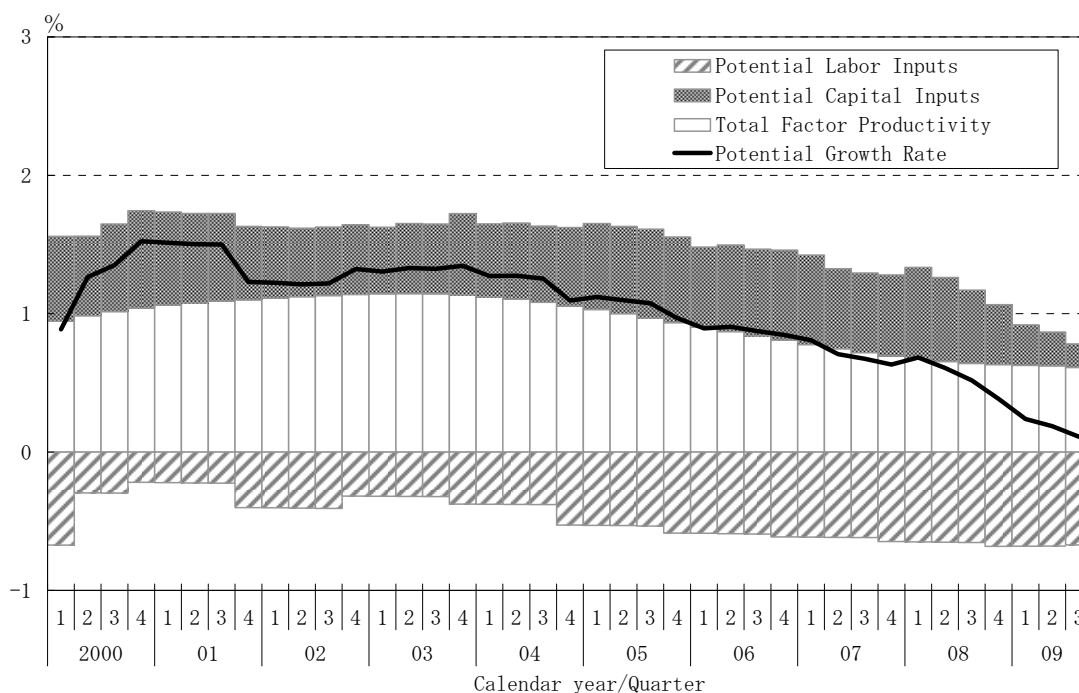
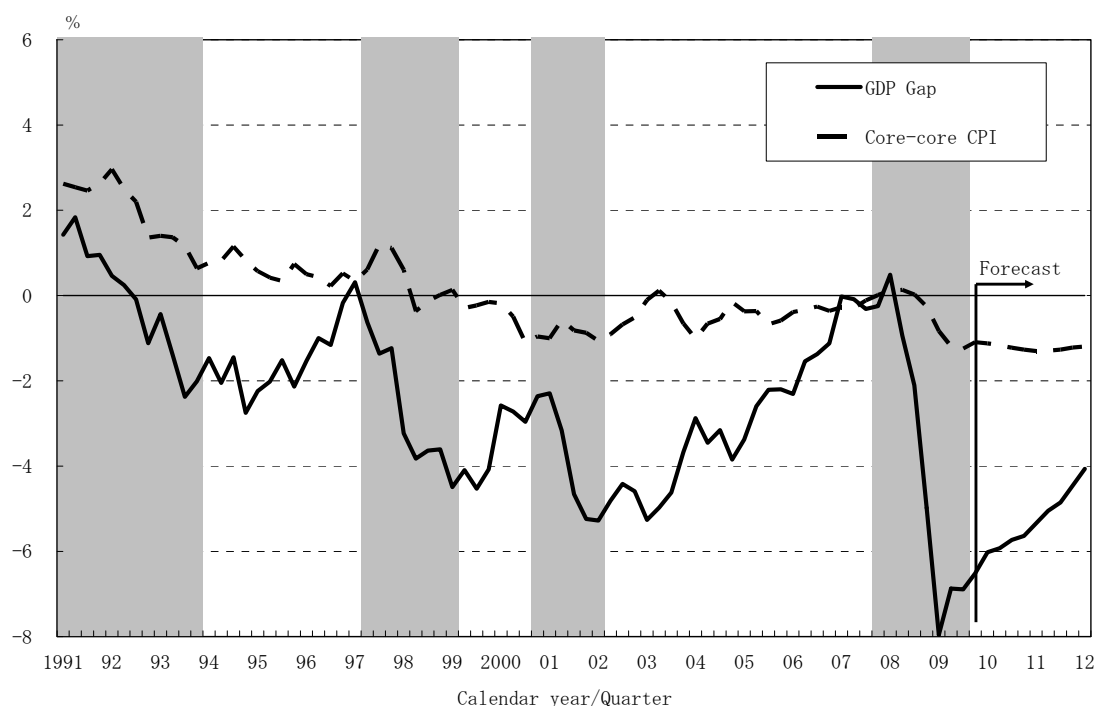


Figure 2 shows the trends for the long-term GDP gap and the core-core CPI. We define the GDP gap as being zero when the core-core CPI can remain +1% in the long term. This is because we believe it would be best for prices to rise at least +1% or thereabouts in order to keep the economy from falling into recession and deflation. With real GDP growth in excess of the growth rate of potential GDP, the GDP gap will start to narrow from 2010 and thereafter. Nevertheless, a substantial gap of about -4% will still remain in 2012 Q1. As a result, the core-core CPI will continue to decline by about annual 1.2% throughout the forecast period.

Owing to Japan's long-term deflationary trend, the Bank of Japan has been forced to keep the money market interest rate at the very low level of 0.5% or lower for over fifteen years since 1995. The BOJ must keep prices stable to avoid both deflation and inflation. In fact, the BOJ should not have abandoned its quantitative easing and zero interest rate policies starting from 2003 at the time of the economic recovery. In its Monetary Policy Release "Clarification of the 'Understanding of Medium- to Long-Term Price Stability'" released in December of 2009, the BOJ stated that the target rate of increase in the CPI needed to maintain price stability would be around 0% to +2%, but given the margin against deflation, we believe the target rate should be at least +1% to +2%. The BOJ's median figure of around 1% seems too low.

**Figure 2. GDP Gap and Outlook for Prices (quarterly)**



Note: Shaded areas indicate recession. The core-core CPI rate of change is expressed as a three-quarter moving average.

At an unscheduled Monetary Policy Meeting held on December 1, 2009 following the government's declaration on deflation, the BOJ decided on a 10 trillion yen "new funds-supplying operation," which is likely to have some impact in lowering interest rates on "term debt" (debt with maturities from two months to just under one year). However, money market interest rates have little room to fall further, and with the Japanese economy in increasing danger of tumbling into long-term stagnation due to deflation, it would be best to adopt quantitative easing at an early stage. In fact, in its "Outlook for Economic Activity and Prices" released at the end of October 2009, the BOJ predicted that prices would continue to fall for the three consecutive years through 2011, which also indicates that the Bank should adopt quantitative easing at an earlier stage.

However, it remains a fact that there is a limit to what the Bank can do in the battle to overcome deflation. Even if the BOJ did act on quantitative easing, it would be impossible to expect any dramatic improvement in deflation. The reason is that there is virtually no room for further cuts in interest rates, which constitute the central bank's primary tool in monetary policy.

On the fiscal side, tax policy and government spending policy should also be used in a manner that does not exacerbate the fiscal deficit. Specifically, this would mean increasing indirect taxes while reducing de facto direct taxes on employment. If tax increases and decreases are implemented at the same time, it could stimulate the economy even if the net increase in taxes is a bit large.

For example, the government might announce that it will implement a 2% hike in the consumption tax in January next year, to be followed by hikes of 2% each subsequent January for a total of three years until the rate has been raised by 6%. Meanwhile, in so far as the increase in tax revenues allows, social insurance premiums on national pensions and basic pensions could be slashed. This would amount to a de facto reduction of direct tax and could be expected to have a considerable impact in stimulating the economy. The increased tax revenues from the consumption tax hike could ultimately be expected to reach around 14 trillion yen, and the large reduction in insurance premiums would enable business firms to hire full-time employees. Moreover, the incremental increases in the consumption tax would create the expectation of rising prices, and if after-tax income rises thanks to the reduction in social insurance premiums, that could be expected to provide a means to overcome deflation since it could stimulate residential construction and purchases of durable goods.

Another suggestion would be to aggressively use ecotaxes to fund not just policies for the economy but those related to pensions, medical expenses and the falling birthrate. The government of Yukio Hatoyama has set the ambitious goal of cutting greenhouse gases by 25% versus 1990 levels by the year 2020. Strong incentives for households and business firms to reduce greenhouse gases would be essential in order to achieve that. Legally enforceable emissions trading would be particularly effective in this context, and the cost of adopting ecotaxes in particular would be low since monitoring would be unnecessary and it would be easy to tax coal, oil and natural gas at the import stage.

According to our model, achieving the target of a 25% reduction through an ecotax alone would require an ecotax of 60,000 - 100,000 yen per ton of greenhouse gas emissions. A tax of 60,000 yen

would mean increasing taxes by 140 yen per liter of gasoline, resulting in a tax of more than 300 dollars per barrel in crude oil equivalence terms. Implementing this would be next to impossible. For this reason, it would be necessary to lighten the burden of the ecotax through regulation and subsidies in conjunction with purchases of emissions credits from other nations, such as developing countries. However, it would be necessary to impose a tax of at least 20,000 yen per ton.

Since it would be difficult to adopt a 20,000 yen tax abruptly, setting it initially at 2,000 yen and raising it to 20,000 yen over the course of ten years could lead to expectations of rising prices. An ecotax of 20,000 yen per ton would yield revenues of between 16 and 18 trillion yen, a huge source of funding equivalent to a consumption tax hike of 6% to 7%. This could be used for such purposes as assisting households and business firms to invest in energy-saving and providing subsidies to support exporting emission reduction facilities to developing countries such as China. At the same time, it could provide allocations aimed at slashing social insurance premiums. Doing this would not only ease the burden on business firms in hiring full-time employees but would lead to a recovery of confidence in the social insurance system.

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