The Fiscal Deficit & the Exit Strategy for Financial Policy
Opportunities & Risks for the Japanese Economy

By Kazumasa Oguro

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Two years have passed since the "new dimension in monetary easing" (quantitative and qualitative monetary easing) that set an inflation target of "2% in about two years" was launched. Although the current (as of May) inflation rate (core consumer price index excluding the effect of hiking the consumption tax) is at 0.0% year-on-year, partly due to the effect of the low oil price, Abenomics has pushed down the yen from 75 to the US dollar to 122 (as of July 6) or thereabouts and the Nikkei 225 has soared from around 8,000 yen to the vicinity of the 20,000 mark. It is obvious the Japanese economy is showing signs of brightness.

As part of its growth strategy, the administration of Prime Minister Shinzo Abe has also embarked on corporate governance reform, including the creation of Japanese versions of a Stewardship Code and a Corporate Governance Code, the latter requiring the appointment of outside directors. Labor reform is also under way with measures such as white collar exemptions, in which compensation is based on results, not the time spent working, and discharges for cash settlements being implemented or under consideration. The pieces necessary for the Japanese economy to take a leap forward are falling into place.

However, the Japanese economy as it currently stands is not without risks. Specifically, there are three: the fiscal deficit, the current account deficit, and the exit strategy for monetary policy (i.e. the financial normalization process). Let me explain.

1st Risk

The first risk is the fiscal deficit. As is well known, the demographics of rapidly aging Japan have pushed the nation's public debt to more than twice as much as its annual GDP, surpassing the pre-war peak that led to spiraling inflation right after the end of World War II *(Chart 1)*. Also common knowledge is the fact that "the speed of aging > economic growth rate" is the cause of rapidly expanding social security costs and a permanent fiscal deficit, making fiscal and social security reform an urgent challenge.

This is the background against which the administration and the political parties supporting it are scheduled to produce a new fiscal restoration plan by summer in order to achieve a primary balance surplus by FY 2020.

Plenty of debate and skirmishing has already taken place regarding the scale of expenditure cuts and tax increases in the process of developing the fiscal restoration plan. At the basis of the discussions is the "Economic and Fiscal Projections for Medium to Long Term Analysis" published by the Cabinet Office in February.

The projections convey a simple but important message: the primary balance in FY 2020 will show a deficit equal to 1.6% of GDP even when the April 2017 consumption tax hike (from the current 8% to 10%) is accounted for under a high growth scenario.

The main target of the reform will be "social security". Social security payments rose from approximately 84 trillion yen in FY 2003 to 110 trillion yen in FY 2013 due to the demographics of aging. This amounted to an annual 2.6 trillion yen increase over the decade, although its magnitude fluctuated year to year between 1 and 5 trillion yen.

Moreover, the source of the 110 trillion yen payment in FY 2013 consists of approximately 60 trillion yen in social insurance premiums, 10 trillion yen in asset management revenue, and the remaining 40 trillion yen in public expenses. In recent years, social insurance premiums have plateaued as a result of the

CHART 1
Japan's public debt as percentage of GDP
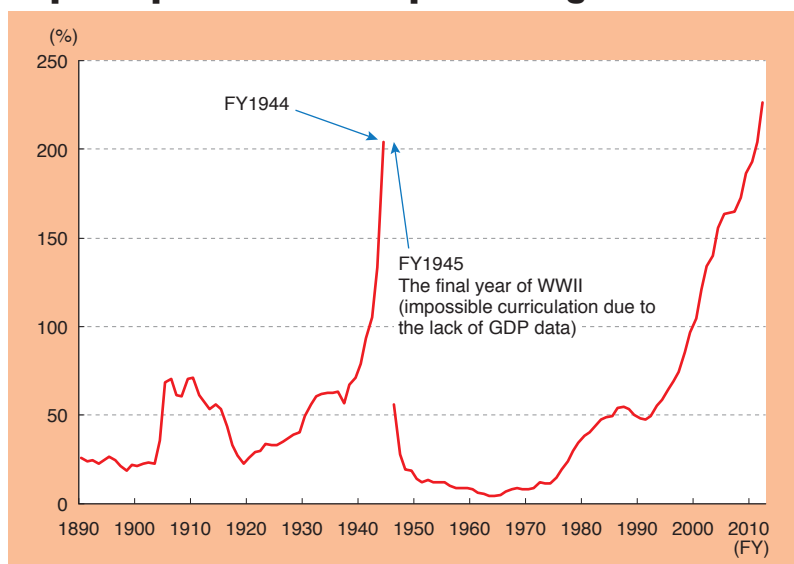
Source: Ministry of Finance in Japan

decline of the working population and other factors, while public expenses have been growing rapidly.

Even if the consumption tax rate is raised to 10% in April 2017 as Abe has vowed, further "pain" such as social security expenditure reductions and tax hikes will be inevitable.

2nd Risk

The second risk is the current account deficit. Generally speaking, when a heavily indebted country falls into current account deficits, it is often the case that it becomes difficult to issue the government bonds necessary to cover the fiscal deficit. Because of this, Japan's current account balance draws attention with regard to the fiscal deficit. But as important as it is to beware of a permanent shift to current account deficits, it is rash to assume that a temporary current account deficit will immediately touch off a crisis for government bond issues.

The analogy of ordinary borrowing is useful here. It is intuitively clear that whether or not a debt can be repaid is determined by subtracting annual expenditures from annual income over the duration of the debt. The same thing can be observed for the government in the relationship between government debt and the primary balance. However, the government can stretch out the repayment period infinitely. In order to prevent government debt from diverging to infinity in that case, though, the current net government debt (as a percentage of GDP) must be maintained at a level no higher than the sum of the primary balance for each year into the infinite future discounted by the annual rate of "1 + government bond yield – growth rate".

Leaving the detailed mathematical proof aside, the following relations expression exists if the "limit of primary balance" is defined as the upper limit of the primary surplus as a proportion of GDP achievable by policy means:

Net government debt as a proportion of GDP ≤ upper limit of the primary surplus as a proportion of GDP ÷ (government bond yield – economic growth rate) …… (1)

In other words, the government at a minimum must have the capacity to generate a primary surplus that is higher than the current net government debt as a proportion of GDP multiplied by (government bond yield – economic growth rate). To put it another way, as long as expression (1) is valid, the government debt can be repaid in theory and there will be no crises over the issuing of government bonds.

The current account does not appear directly in (1). Even if the current account falls into deficit, it does not mean that the government perforce must rely on the overseas financial market in order to issue bonds. It is the substance of the current account deficit that is the question. For example, the current account can be in deficit even when "savings minus investment" is negative in the private sector and positive in the government sector. In such a case, the government has a fiscal surplus, so there are no worries over issuing government bonds.

However, there is a problem when this is not the case, specifically when a current account deficit indirectly affects expression (1). For example, take the government bond yield. When the government can no longer issue all its bonds domestically because the current account goes into deficit, some of those bonds will have to be sold overseas. In that case, overseas institutional investors may demand higher yields than Japanese investors.

The reason for this is simple. Fiscal difficulties generate an incentive for the Japanese government to go into "strategic default" on its government bonds. When the government bonds are being held by Japanese banks and other domestic investors, there is little incentive to undertake such a strategy since default will result in a financial crisis for the Japanese banks and the like, plunging the Japanese economy into chaos. Thus, lower yields can be maintained on government bonds compared to cases where institutional and other overseas investors hold the bonds. In other words, although it is necessary to be mindful of the Japanese economy going into a perpetual state of current account deficits, that does not mean that the issuing of government bonds will necessarily be in danger. It is necessary to carefully examine the substance of the current account deficit in detail.

Japan's net government debt as a proportion of GDP is currently around 150%. According to (1), if we assume a 2% government bond yield of 2% and a 1% economic growth rate, the Japanese government is required to have the ability to generate a primary balance surplus of 1.5% as a proportion of GDP. That said, the upper limit of the primary surplus as a proportion of GDP not only depends on the limits to tax increases and expenditure cuts but is also affected by the maturity of politics and the understanding of democracy. A primary balance surplus of 1.5% as a proportion of GDP is not easy to achieve and requires powerful political leadership. Therefore, if we assume the upper limit of the primary balance surplus to be 1% as a proportion of GDP, the upper limit of the government bond yield that satisfies (1) declines to 1.8%, indicating that if the government bond yield surpasses that figure, there is a theoretical possibility that issuing government bonds could go into crisis mode.

3rd Risk

The third risk is the exit strategy for monetary policy. Some people are "optimistic" that Japanese monetary policy will never arrive at the exit because the current core inflation rate (core CPI excluding the effect of hiking the consumption tax) is not reaching 2% despite the magnitude of the actual quantitative easing. However, there is a possibility going forward that a growing manpower shortage, in construction in particular, will exacerbate inflationary tendencies. In that case, deflation will be defeated but the risk of a fiscal crisis will grow. Therefore, it is necessary even now to conduct a thorough discussion of an exit strategy for monetary policy during the process of interest rate normalization.

This argument is closely related to the quantity theory of money. The quantity theory of money holds that money supply is proportional to the price level and is expressed by the following formula:

CHART 2

Relationship between monetary base & nominal GDP
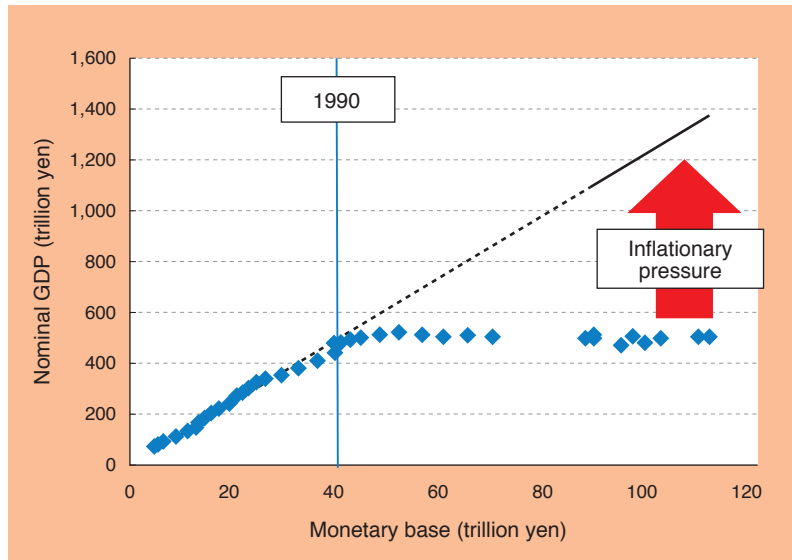
Source: SNA (National Accounts of Japan); Cabinet Office, Bank of Japan

Amount of money in circulation x velocity of money = price level x real GDP …… (2)

The "real GDP" on the right side is the "volume of transactions" to be precise, but is often substituted by real GDP. The right side of the equation is "nominal GDP (price level x real GDP)". The following is derived when the left side of the equation is substituted by the relational expression between the "amount of money in circulation" and the "monetary base" (the amount of money in circulation = money multiplier x monetary base).

Nominal GDP = velocity of money x money multiplier x monetary base …… (3)

Chart 2 illustrates the relationship in (3) using Japanese data. As is clear from the figure, the ratio between the monetary base and nominal GDP was stable until around 1990, before the bubble economy collapsed. For example, in 1990, the monetary base and nominal GDP were approximately 40 trillion yen and 440 trillion yen respectively, while the average of nominal GDP ÷ monetary base, i.e. the average of the "velocity of money x money multiplier" in (3), was approximately 12. (It can likewise be confirmed that the ratio of US monetary base and nominal GDP was stable until just before the subprime shock.)

However, this relationship broke down after 1990 with the end of the bubble economy. For example, although the 2012 monetary base was around 120 trillion yen, nominal GDP was merely around 475 trillion yen. The reason for this was because the velocity of money and the money multiplier had declined dramatically. In a situation like Japan's, where the interest rate is near zero, these numbers drop. As a result,

even if the Bank of Japan (BOJ) increases the monetary base, the quantity theory of money does not apply, and the price level does not rise by much. The current monetary base (as of April 2015) was approximately 300 trillion yen, but this situation is unlikely to change any time soon.

Based on these observations, it is necessary to carefully consider whether or not the price level will rise if the BOJ conducts more quantitative easing, barring the possibility of a growing manpower shortage or some other factor augmenting inflationary tendencies. To wit, looking at the history of inflation rates, the average annual inflation rate even during the bubble economy years was a lowly 0.6%, even as it was pushed up to 1.4% in 1989 with the added burden of the consumption tax. Excepting 1990 and 1991 with the Gulf War, 1997 with the consumption tax hike, and 2008 with the impact of the spike in oil prices, 1985 was the last time the inflation rate topped 2% in a normal year.

John Maynard Keynes and other economists have also noted that the quantity theory of money does not necessarily apply in a situation where the stability of "velocity of money x money multiplier" has broken down, as in Japan today.

In his *General Theory of Employment, Interest and Money*, John Maynard Keynes wrote that the quantity theory (of money) comes into effect in times of full employment, but is not appropriate in a situation where non-voluntary unemployment exists. He explained that the changes in the quantity of money can change not only the prices but also the current debt ratio of the banks and even the velocity of money. We may conclude that the quantity of money and prices change in a way indicated by the quantity theory of money only under the premise that all of these factors are constant. (*Keynes and His Battles* by Gilles Dostaler).

However, the situation changes as deflation is overcome and interest rates go back to normal. At that point, the quantity theory of money prevails again, and the "velocity of money x multiplier" could gradually rise to 12, as in normal times.

At this point, in the case where the monetary base is 300 trillion yen, nominal GDP must be 3,600 trillion yen according to (2). However, when real GDP changes little, the price level must rise by a factor of eight (= 3,600 trillion yen ÷ 475 trillion yen) since "nominal GDP = real GDP x price level". Such inflationary pressures may gradually come to have effect.

In order for the BOJ to control inflation under such conditions, it will become necessary to shrink the monetary base to an appropriate size by taking a large amount of BOJ bank notes out of circulation. There are two way to do this: raise the interest rate on reserve deposits, or conduct selling operations on the open market. Either way, interest rates may push up. Given that in Japan, public debt as a proportion of

GDP has surpassed 200% and banks and other financial institutions hold large amounts of government bonds, it is necessary to proceed with care with regard to long-term interest rates (including their term structure) and the impact on the financial system.

It was under these circumstances that the BOJ announced on Oct. 31, 2014 that the annual pace of the increase in the monetary base would be increased to about 80 trillion yen (an addition of about 10-20 trillion yen compared with the past).

In doing so, the BOJ will be purchasing long-term government bonds so that their amount outstanding will increase at an annual pace of about 80 trillion yen, an addition of about 30 trillion yen compared with the past when it was going to be increased at an annual pace of about 50 trillion yen. In order to increase the net holdings of long-term government bonds by 80 trillion yen annually, it is necessary to purchase long-term government bonds held by the BOJ as they mature, so the effective gross purchase should be around 110 trillion yen. The average remaining maturity (the period remaining until the bonds are redeemed upon maturity; also called duration) of the BOJ's long-term government bond purchases will be extended to about 7-10 years from the current seven years or so.

But there are limits to this new dimension in monetary easing. If the BOJ continues to increase its purchases, the government bonds being traded in the market will dry up in the near future. The reason for this is simple. Let's assume that the annual fiscal deficit (new issues of government bonds) is approximately 30 trillion yen, to pick a convenient ballpark figure. When the BOJ purchases a net amount of approximately 80 trillion yen from the market under the new dimension in monetary easing, it absorbs 50 trillion yen (80 trillion yen – 50 trillion yen) worth of government bonds held by the financial institutions. As of 2014, the amount of government bonds outstanding was approximately 800 trillion yen. Since the BOJ already holds approximately 200 trillion yen in government bonds, a simple calculation shows that it will own all the government bonds in approximately 12 years ((880 – 200) trillion yen ÷ 50 trillion yen), leaving the government bond market high and dry.

Of course the outcome will vary depending on the future circumstances of the fiscal deficit as well as the behavior of government bond holders other than the BOJ. For example, life insurance companies and the like require government bonds as part of their asset management. Thus, in reality, the government bond market would dry up in less than a dozen years.

Chart 3 represents a forecast of the path that the gross assets of the BOJ as a proportion of GDP will take if it continues to purchase long-

CHART 3

Total assets as percentage of GDP (quarterly) for central banks of major economies
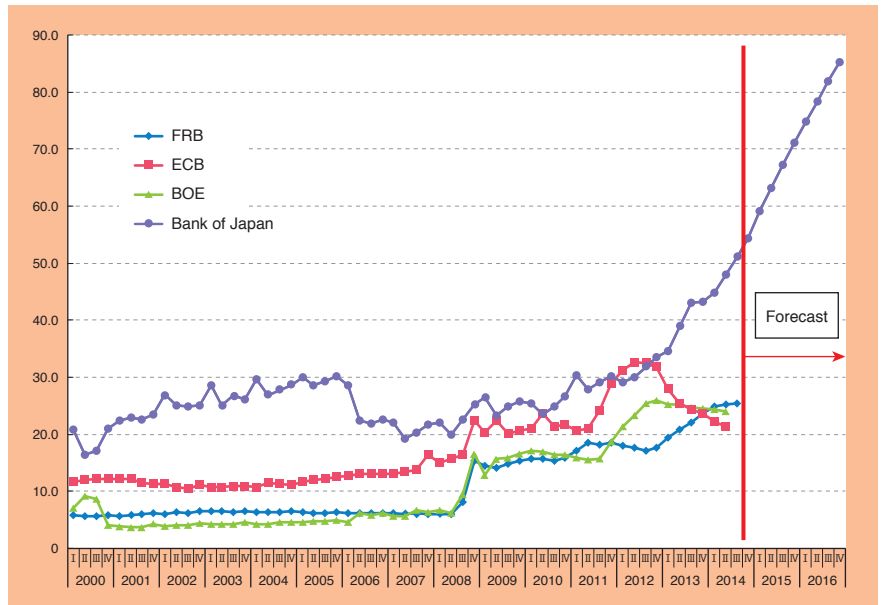
Notes: 1) Total assets outstanding as of end of quarter for BOJ, last Wednesday before end of quarter for FRB, last Friday before end of quarter for ECB, and last Wednesday before end of quarter for BOE. 2) National government statistics: GDP is nominal, seasonally adjusted.
Source: Central banks

term government bonds under the current monetary easing policy. Already by the third quarter of 2012, the ratio of the BOJ's gross assets to GDP at approximately 43% was an outlier compared to the figures for the Federal Reserve Board of the United States, the European Central Bank and the Bank of England, each in the range of 20-25%. Yet if the BOJ alone continues its "new dimension in monetary easing" when the Fed and others begin winding down quantitative easing as the exit strategy for monetary policy, the gross assets of the BOJ could reach around 85% as a proportion of GDP.

Thus, there are limits to the effectiveness of the "new dimension in monetary easing". It is necessary to work even now to prepare an adequate exit strategy for monetary policy including its compatibility with fundamental fiscal and social security reform.

It is clear that fundamental fiscal and social security reform is necessary to avoid these three risks. It is for this purpose that the government and the parties supporting it are scheduled to finalize a new fiscal restoration plan by this summer in order to eliminate the primary balance by FY 2020. Whether or not the Japanese economy, currently on an upswing, can consolidate its gains and usher in a new era of growth will depend on the success of this new fiscal restoration plan. JS

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