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JAPANESE GOVERNMENT DEBT: IT'S NOT AS BAD AS YOU MIGHT THINK

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Japan has the third largest economy in the world, after the United States and China, as ranked by total GDP. Its government is also regarded as one of the most highly indebted of all countries, and perhaps the most indebted of highly developed countries.

According to data from the Bank of Japan and the Japanese Cabinet Office, the gross level of government debt in Japan grew consistently since 1998, while nominal GDP stagnated. By the end of fiscal year 2018, the gross debt of Japan was 1,175.84 trillion yen,¹ or 213.67% of GDP,² a ratio almost double that of the United States.

The striking figures and upward trend of Japanese government debt certainly arouses our concerns about Japan's economy and the fiscal situation of the Japanese government. However, the point of this note is to show that the magnitude of the gross debt-to-GDP ratio for Japan may be misleading, and may not be a good indicator of the actual fiscal situation of the Japanese government. However, it is the net debt-to-GDP ratio of Japan that is more important as this value is much lower than the widely reported gross debt-to-GDP ratio.

There are two big adjustments to make in moving from gross to net debt for Japan. One is to account for the sizable asset holdings of Japan's government. We subtract the financial assets held by the government from the gross outstanding debt. Next, we adjust the net asset position of the Bank of Japan, the central bank of Japan. The Bank of Japan has purchased a large amount of the gross government debt, and this debt represents a debt of the Japanese government that is owed to the Bank of Japan. But the Bank of Japan earns interest on this debt and then remits its earnings back to the government of Japan. That is, the debt that Japan's government owes to the Bank of Japan represents a debt that the government essentially owes to itself and should, therefore not be included in a measure of the overall net debt obligation of the government of Japan. Complicating this issue is the need to also adjust for the liabilities that the Bank of Japan created in order to buy this government debt. These liabilities are the reserves of commercial banks that are held by the Bank of Japan.

¹ The gross debt of Japan refers to the debt of general government, this includes general government debt securities outstanding (debt securities held by the government is excluded) and loans from financial institutions, calculated according to Japan's Flow of Funds Accounts.

² Nominal GDP released by the Cabinet Office.

FINANCIAL ASSETS OF JAPAN'S GOVERNMENT

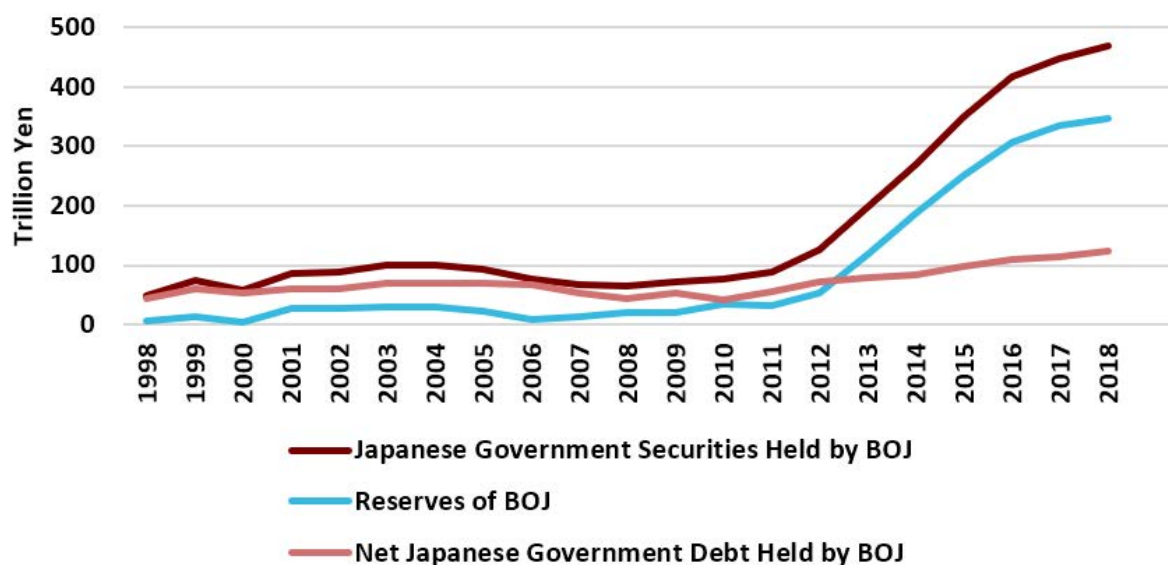
The Japanese government holds a considerable quantity of financial assets, which makes the huge debt seem less foreboding. According to data released by the Bank of Japan, by the end of FY 2018, the Japanese government held 451.35 trillion yen of financial assets, including 86 trillion yen of currency and deposits, 154.68 trillion yen of equity and investment fund shares and 210.67 trillion yen of outward investments in securities. This represents about one third of the gross debt. By subtracting the financial assets of the Japanese government from the gross debt, we have an initial net debt of 724.49 trillion yen, and a net debt to GDP ratio of 131.7%.

DEBT HELD BY THE BANK OF JAPAN

The Bank of Japan holds a sizable asset position in Japanese Government Bonds. Under the Comprehensive Monetary Easing Policy of 2010, the Bank of Japan established an Asset Purchase Program. It then began to make large purchases of Japanese Government Bonds and steadily increasing its holdings of Japanese Government Securities since 2010. In April 2013, Japan's government implemented a policy named the Quantitative and Qualitative Monetary Easing Policy (QQE). This policy set a target to increase the Bank of Japan's holdings of Japanese government bonds by 50 trillion yen annually. In fact, the Bank of Japan's holdings increased more than this, with purchases exceeding 60 trillion yen in 2013 and reaching an all-time high with purchases of 81.76 trillion yen in 2015.³ At the end of fiscal year 2018, the Bank of Japan held 469.95 trillion yen of Japanese Government Securities, representing 40.0% of the gross government debt. Almost 98% of the securities held by the Bank of Japan were government bonds, although there were a smattering of other securities including Financing Bills, Treasury Bills and Treasury Discounted Bills.

Since the government securities held by the BOJ are essentially debts that the government of Japan owes to itself, if repaid, the BOJ could then rebate those payments back to the government. To understand the actual fiscal burden that the government debt imposes on Japan, it is important to net out the debt that Japan owes to itself.

Figure 1. Net Japanese Government Debt Held by BOJ



³ The annual purchase of Japanese Government Bonds is calculated by the holdings of Japanese Government Bonds in the Bank of Japan Accounts.

When adjusting for the Bank of Japan's asset holdings, it is also important to take into account the liabilities that it incurred in purchasing all of this government debt. A large portion of the funding for the Bank of Japan debt purchases is matched by liabilities in the form of bank reserves. These reserves are interest-earning assets of banks but are liabilities of the Bank of Japan, and hence are, ultimately, liabilities of the government of Japan. As such, these reserves should be netted out from the Bank of Japan's holdings of government securities. The net assets of the Bank of Japan, its holdings of government securities less its reserve liabilities, is the second adjustment made to calculating the final net debt position of Japan's government. Figure 1 shows the large increase in government securities held by the Bank of Japan, as well as the huge increase in reserve liabilities. Bank of Japan reserve liabilities rose from 34.95 trillion yen in 2010 to 346.25 trillion yen in 2018.

Why were banks willing to hold this large increase in excess reserves? The trend in both short term and long term interest rates on Japan's government bonds was toward zero. This lowered the incentive for banks and individuals to hold Japan's government bonds, and encouraged individuals to place their safe short term funds in bank accounts. Similarly, banks were given incentives to prefer interest-earning reserve accounts over Japan's government bonds. Hence, the Bank of Japan's purchase of government bonds was accompanied by a simultaneous increase in reserve account liabilities. Basically, the public ended up holding the government debt indirectly, via the Bank of Japan.

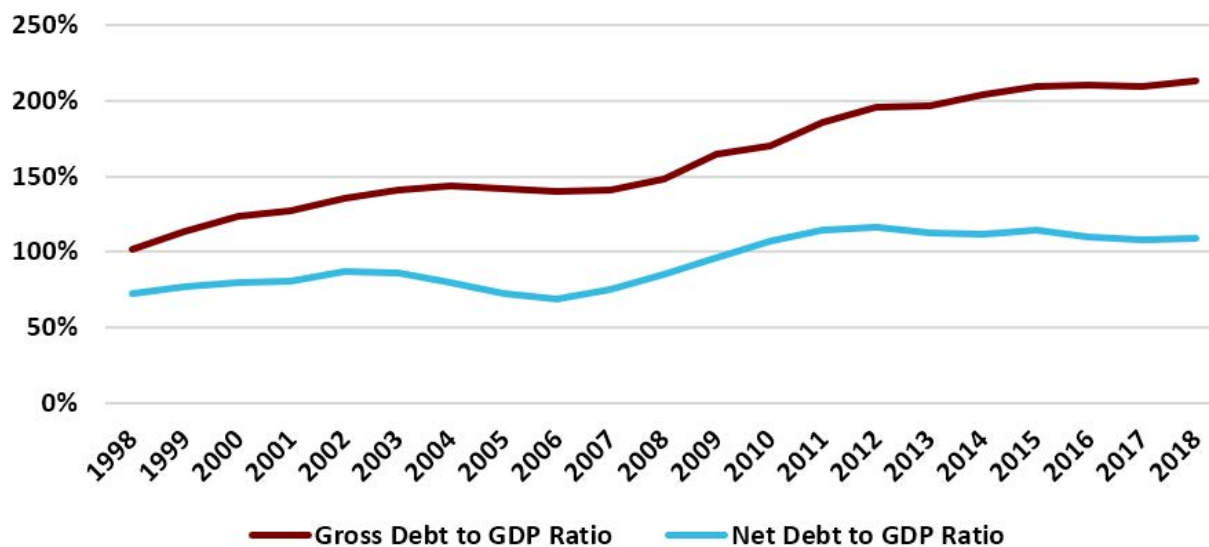
The net assets of the Bank of Japan, the government securities held less the reserve liabilities, is also shown in Figure 1. The net assets of the Bank of Japan is the second adjustment needed to calculate the net asset position of Japan's government.

FINAL NET DEBT OF JAPAN

After making this second adjustment, the net debt of Japan's government was 600.8 trillion yen in FY 2018, and the ratio of net debt to GDP falls to 109.2%. Figure 2 shows the evolution of Japan's net debt-to-GDP ratio after making both adjustments to gross debt.

In conclusion, the government of Japan's fiscal situation is not nearly as bad as it appears when looking at the gross debt numbers. We see that the more informative net debt-to-GDP ratio peaked in 2012 at 116.5%, and has remained steady at a value of about 110% over the last half decade.

Figure 2. Debt to GDP Ratio of Japan, 1998-2018



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DATA SOURCES

Cabinet Office, Statistics > SNA(National Accounts of Japan) > Quarterly Estimates of GDP - Release Archive > Quarterly Estimates of GDP - Release Archive - 2019 > Jan.-Mar. 2019 (The 2nd preliminary), https://www.esri.cao.go.jp/en/sna/data/sokuhou/files/2019/qe191_2/gdemenuea.html

The Bank of Japan, Statistics > Flow of Funds, <https://www.boj.or.jp/en/statistics/sj/index.htm/>

The Bank of Japan, Statistics > Bank of Japan Statistics > Others > Bank of Japan Accounts, <https://www.boj.or.jp/en/statistics/boj/other/ac/index.htm/>

The Bank of Japan, Statistics > Bank of Japan Statistics > Others > Reserves, <https://www.boj.or.jp/en/statistics/boj/other/reserve/index.htm/>