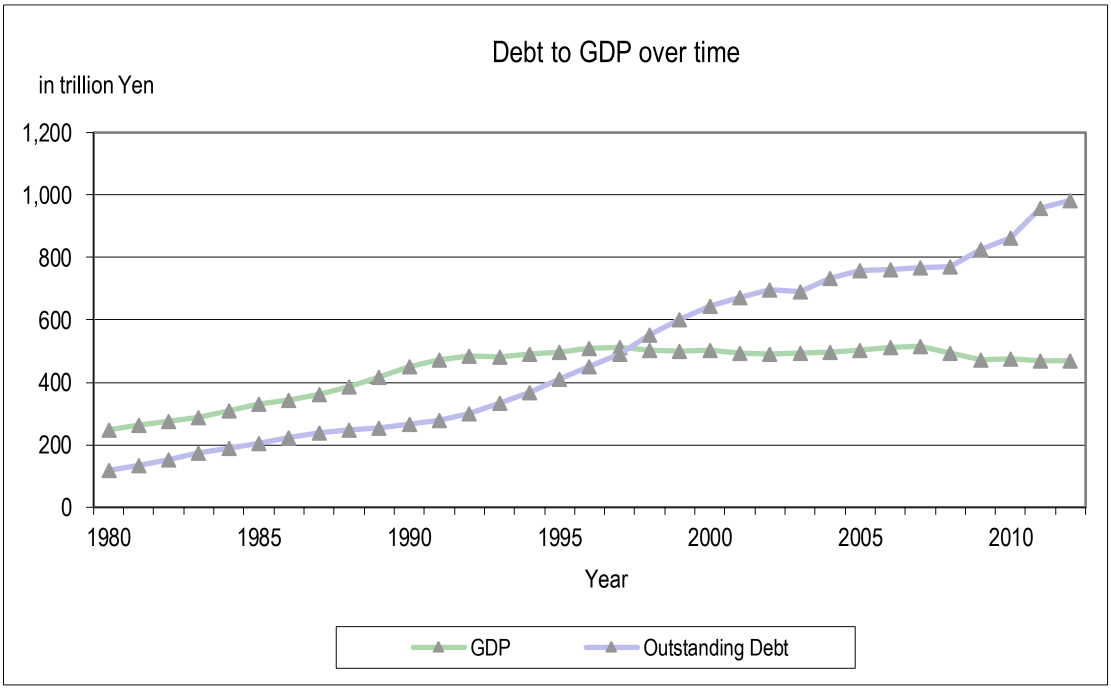
An analysis of the Japanese Government's debt problem

Japan has a number of economic problems – all are somehow related to each other. However, the main obstacle for the future of Japan is the general government budget with a current debt to GDP ratio of more than 210%.

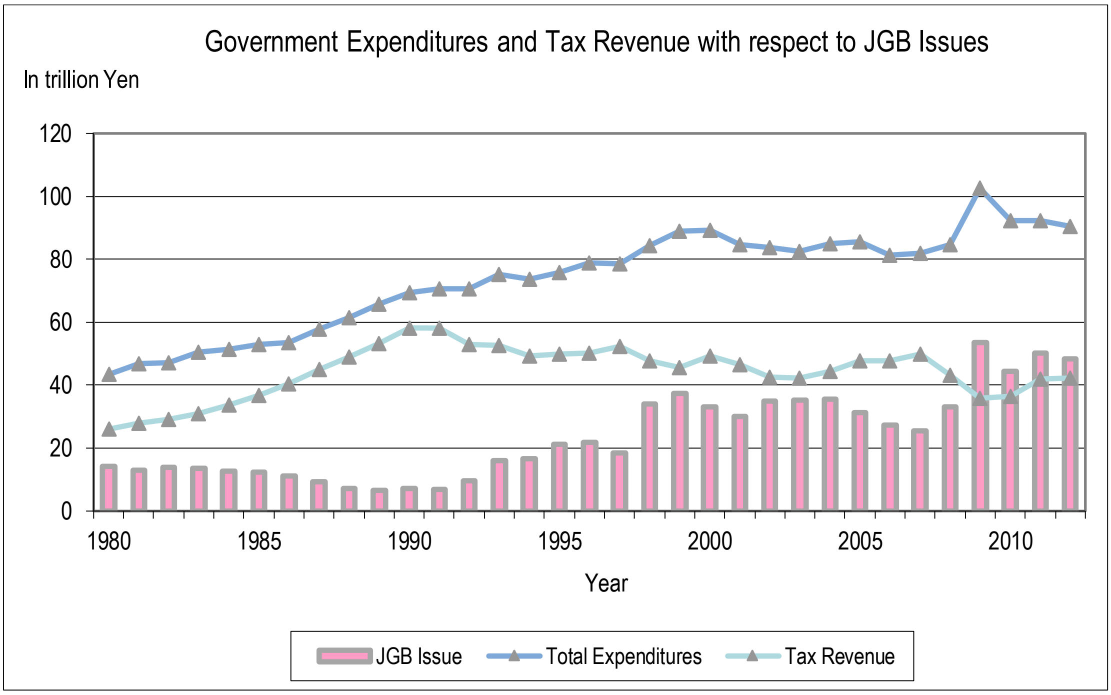
A closer look at the fundamentals shows that GDP in 2012 is at the same level as it was in 1991 and has mostly been remained at this level between 1991 and 2012 only due to large government spending deficits. The total outstanding government debt has almost quadrupled from 278 trillion Yen in 1991 to almost 1,000 trillion Yen in 2012 (Figure 1) - a toxic incline in liabilities, when in the same period, total tax revenues decline by over 27%. Furthermore, for four consecutive years tax revenues have been smaller than JGB issues (Figure 2).

<u>Figure 1</u>



Source: Ministry of Finance Japan

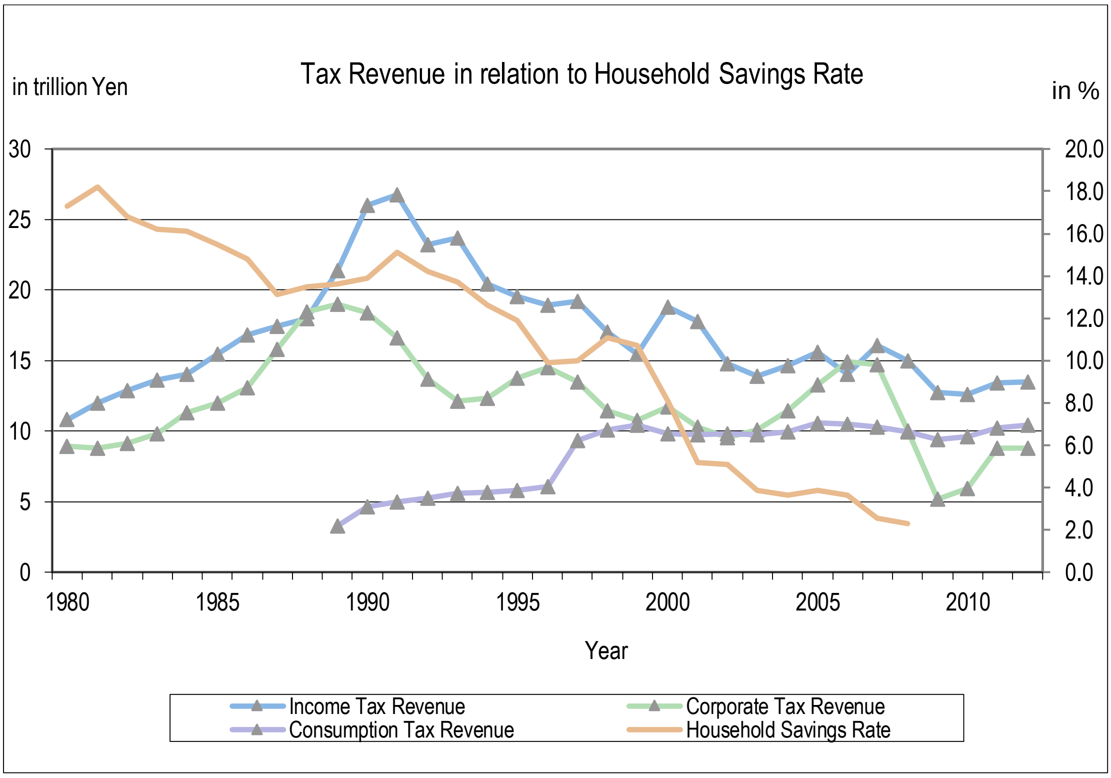
Figure 2



Source: Ministry of Finance Japan

Corporate tax revenues have almost halved from 16.6 trillion Yen in 1991 to less than 9 trillion Yen in 2012. The same applies to income tax revenues, which have declined from 26.7 trillion Yen in 1991 to 13.5 trillion Yen in 2012. To support profitability of corporations, corporate taxes have been reduced steadily from 40% in 1989 to 25.5% in 2012. Again, a similar process applies for income tax; such that 65% of the Japanese population pays only 5% income taxes and only 15% of the population pay more than 10% income tax in 2012. The reduction in income tax revenues has been captured through the introduction of consumption taxes. The consumption tax was first introduced in 1989 at a rate of 3% and later in 1997 was increased to 5%, which led to consumption tax revenue of around 10 trillion Yen per annum since 1997. Consumption tax revenue has been a stable and a calculable income for the Japanese government – at the cost of household savings. Household savings declined from 10% in 1997 to 2% in 2012. This leaves the question how stable consumption tax revenue will remain when the consumption tax will be increased steadily to 10% in October 2015. (Figure 3)

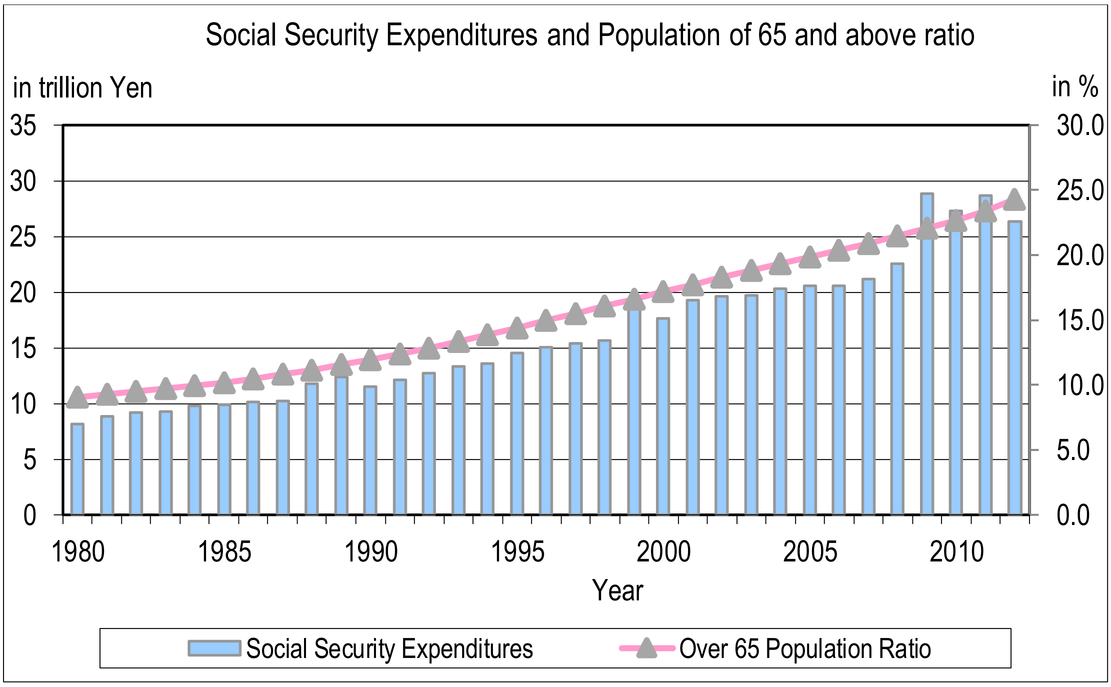
Figure 3



Source: Ministry of Finance Japan (Tax Revenues), OECD (Household Savings Rate)

Next to a 27% decrease in tax revenue, General Government Expenditures have increased by one third from 39.2 trillion Yen in 1991 to more than 51.8 trillion Yen in 2012. This is mainly due to the changing demographics. The aging population caused social security expenditures to more than double from 12.1 trillion Yen in 1991 to 26.4 trillion Yen in 2012. Currently almost one quarter of the population is at the age of 65 or above. In regard to this, the government has extended the age of retirement from 60 to 65 coming into law by 1st of April 2013. Considering that the baby boom generation is going to retire in the coming two years this give a dark outlook on the governmental finances. Currently, 10 million people are at the age of 60 – 65. When these people leave the workforce only around 6 million people will replace them (Figure 4).

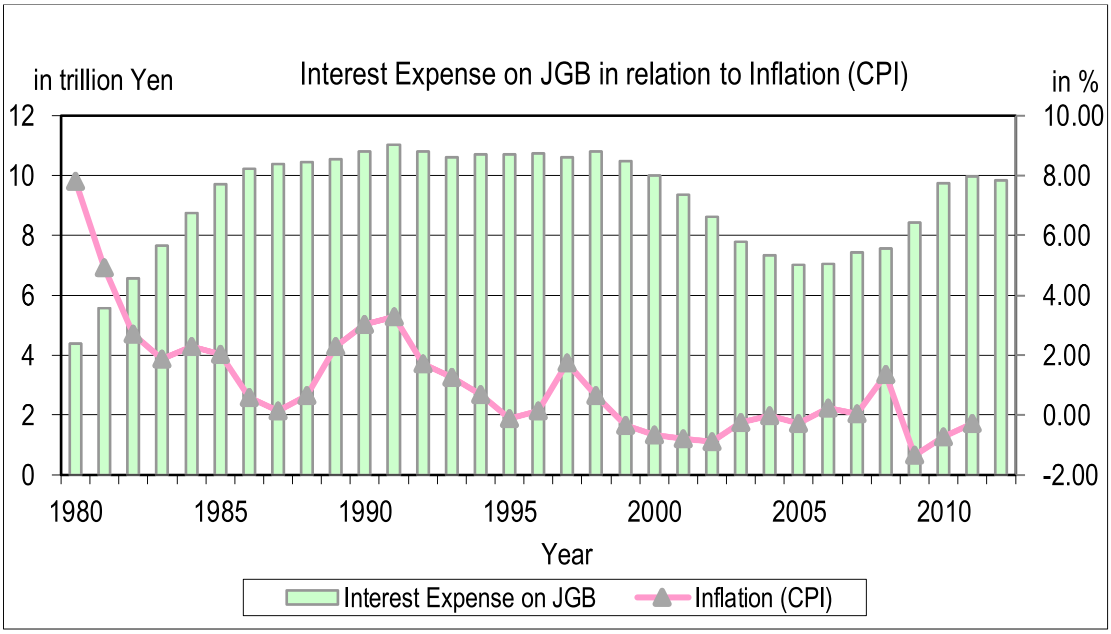
Figure 4



Source: Ministry of Finance Japan (Social Security Expenditures), World Bank (Population above 65 ratio)

Because of near zero key interest rates set by the Bank of Japan (BoJ) and its Japanese Government Bonds (JGB) purchases, interest expenditures on Japanese Government Bonds (JGB) have actually decreased from 11.9 trillion Yen in 1991 to 9.9 trillion Yen in 2012. Banks, pension funds and even households in Japan have actually favored JGBs, because there were simply no other positive investment opportunities since stock markets and property prices declined and the outlook of a strong Yen made investments abroad unattractive. Hence, JGBs were the only option to protect your money from the continuous deflation from 1995 onwards. (Figure 5)

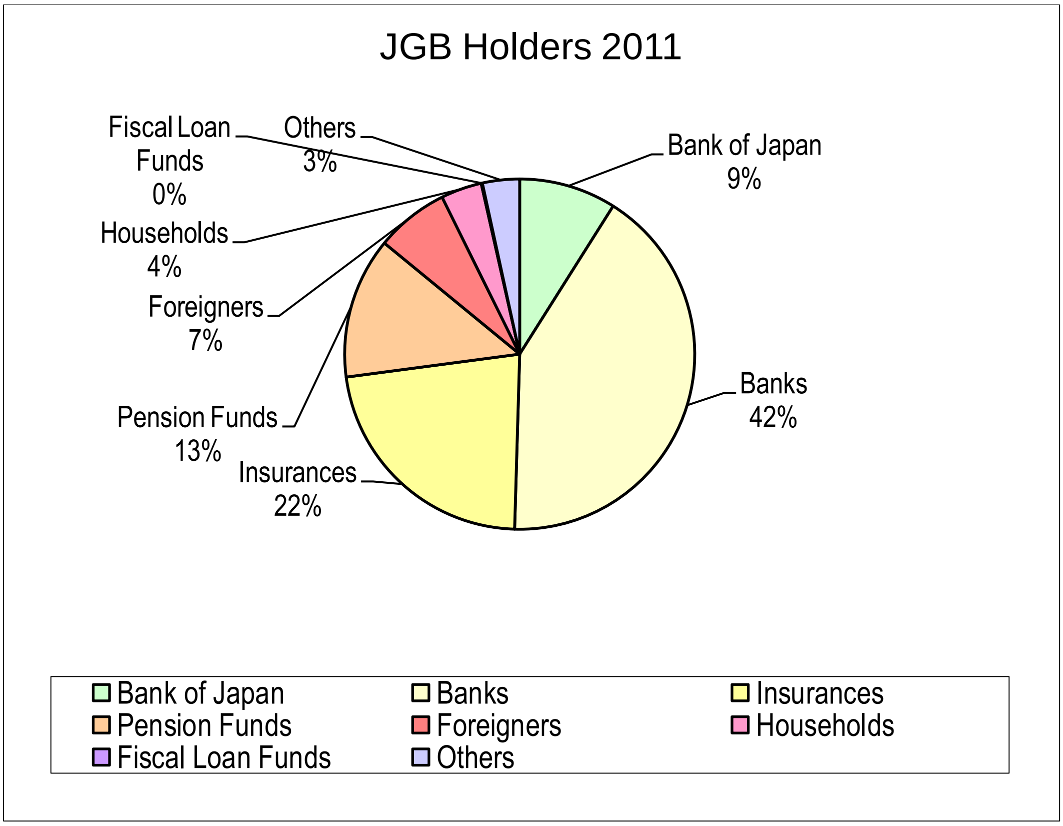
Figure 5



In summary this means, there are only two options to avoid a default on debt by the Japanese government: A debt haircut or to create inflation.

Everyone is familiar with the term "debt haircut" since Greece was bailed out during the European Debt Crisis. Even though it worked out quite well for Greece (so far), it is not an option for Japan. Considering that almost 94% of the government debt is owned by Japanese (Figure 6), a debt haircut would lead to major bankruptcies and large distortions or even a collapse of the Japanese economy. In Greece the threat to the domestic economy was relatively low, because foreigners owned more than 80% of the debt during the haircut, such that the loss of capital could be spread.

Figure 6



Source: Ministry of Finance Japan

To create inflation seems to be the better option. However, higher inflation means higher interest expense on government debt. In this sense, it needs to be investigated how much inflation will be harmful to debt to GDP ratio. To find out about the equilibrium ratio one has to calculate the amount of government bonds the BoJ has to purchase in the future to increase inflation, but at the same time allow interest on debt not to increase by an amount large enough to make government funding problematic.