

Japan - long-term stagnation or the limit of quantitative growth?

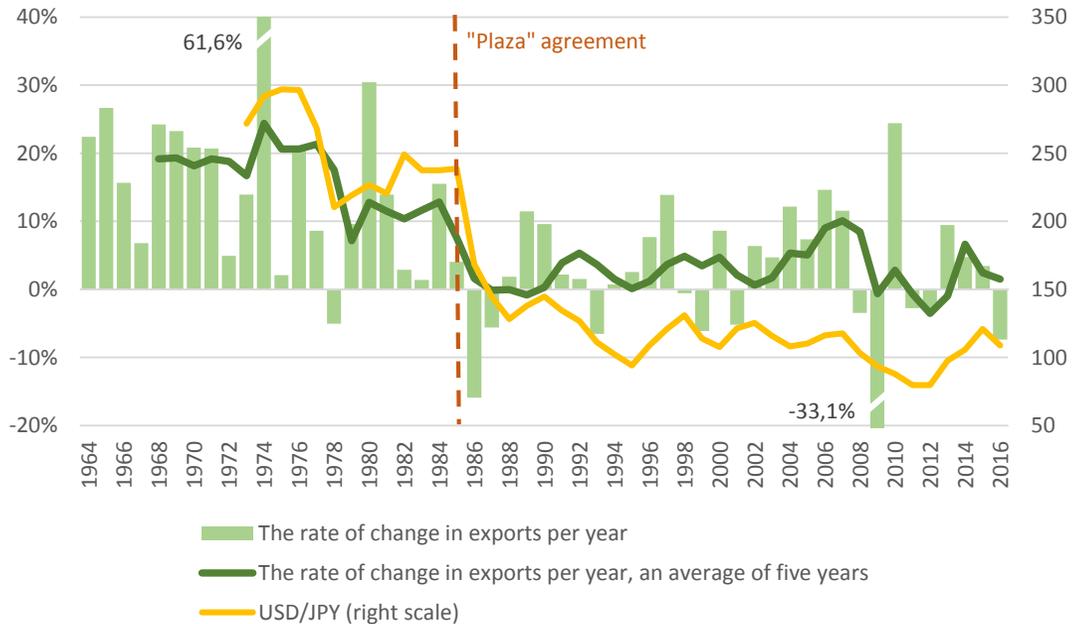
For three decades the Japanese economy has been showing extremely low growth rates combined with deflation. All attempts to change the situation have not yet succeeded. But, perhaps, the traditional understanding of economic indicators does not reflect the real state of the Japanese economy.

Deflation trap

Post-war economic growth of Japan is deservedly considered an economic miracle; there were no such high rates of growth in all documented world history. Such a rapid growth in the export-oriented Japanese economy has caused discontent in the US, which has accumulated a significant foreign trade deficit.

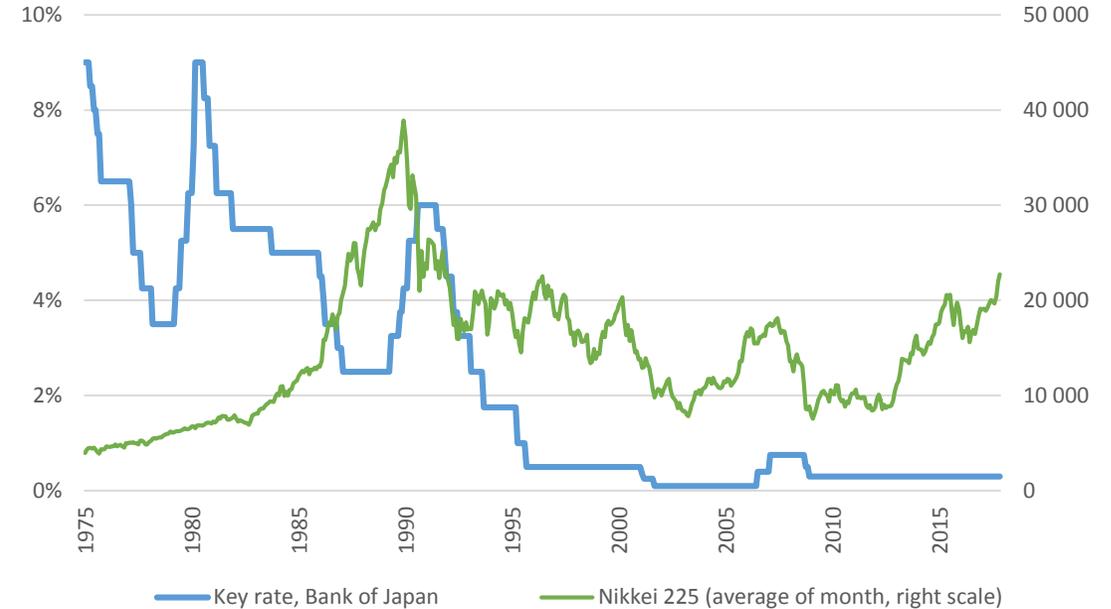
In order to balance the imbalances in trade with the US, other developed countries, including Japan, agreed to strengthen their own currency against the dollar with the help of currency interventions. This treaty, known as the “Plaza” agreement, was signed on September 22, 1985 and became a turning point in Japan's economic history.

Export and USD/JPY rate



Source: Ministry of Finance

Key rate and stock index Nikkei 225



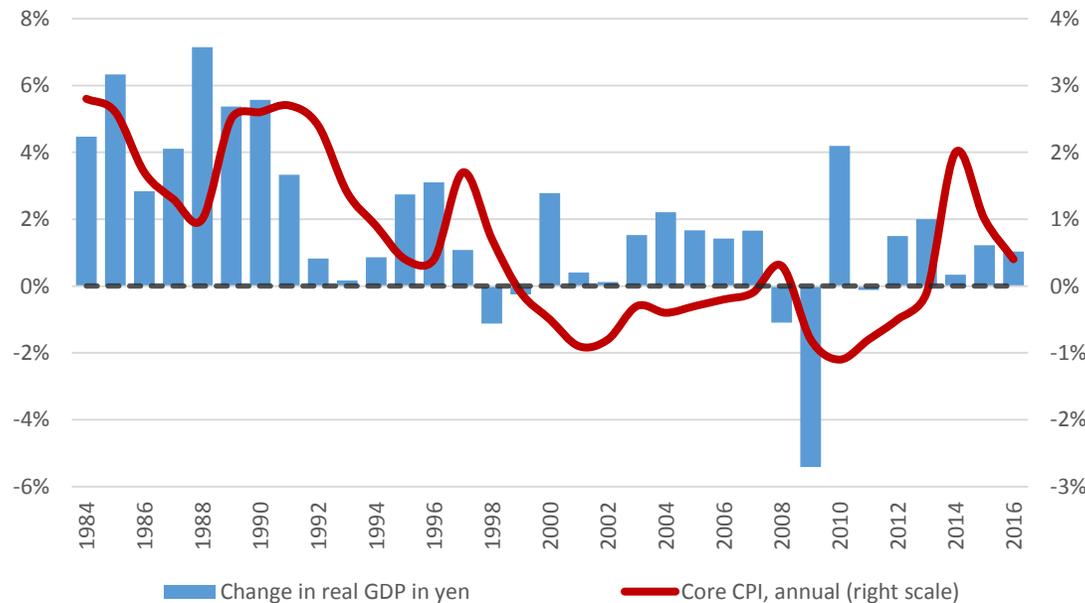
Source: Bank of Japan

Within the next year, the yen rose by 29%, which led to the collapse of Japanese exports by 15.9% and in 1987 by another 5.6%. The government of Japan, concerned about the reduction of the most important component of the national economy, decided to compensate an expensive yen by reducing the key rate (from 5 to 2.5%), which, in turn, inflated the bubble in the financial markets. Now they had to worry about the bubble. The subsequent series of a 6% rise in the key rate contributed to the fall of financial markets and the onset of a long period of economic depression combined with extremely low inflation, turning into deflation. Japan fell into the so-called “deflation trap”, when consumers and businesses, waiting for further price reductions, postpone purchases and investments, which in turn contributes to further deflation.

Pumping up economy with liquidity

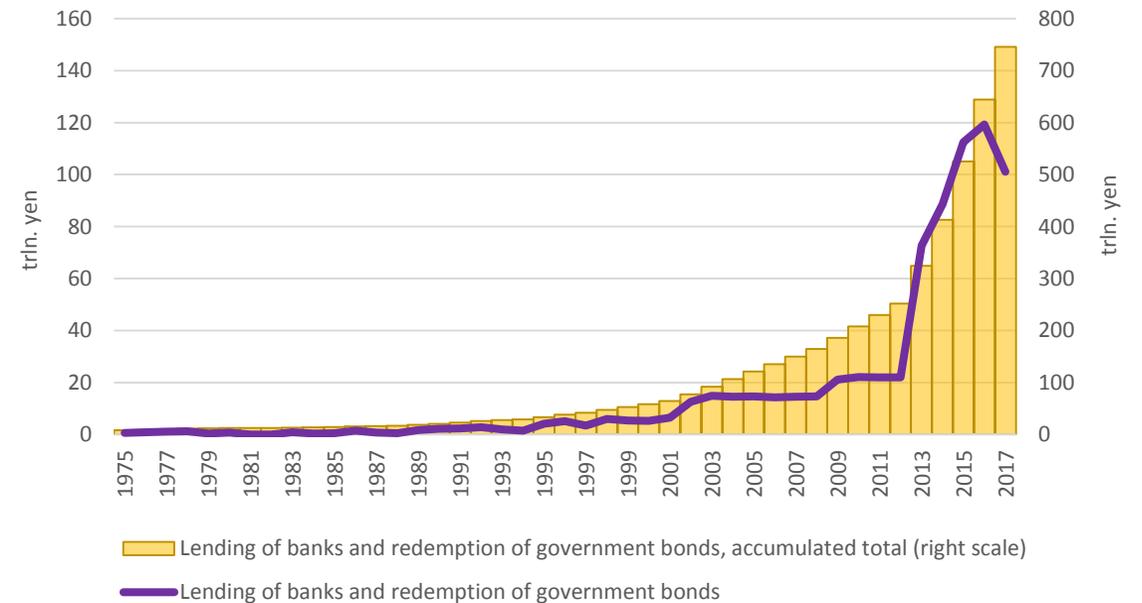
The measures of the Japanese authorities to revive economic growth were based on the fight against deflation. The key rate again entered the long-term cycle of decline, dropping to a minimum value of 0.1% by 2001. Once the capabilities of this instrument have been exhausted, the Bank of Japan launched the first in the history program of “Quantitative easing” (QE), which is still ongoing. For sixteen years (from 2001 to the present), the Bank of Japan bought from commercial banks bonds for almost 400 trillion yen. At the same time, the Japanese government reduced taxes and directed funds directly to the real sector of the economy, bypassing banks.

Dynamics of GDP and consumer price index (excluding food and energy)



Source: Bank of Japan

Volume of lending to the banking sector and open market operations of the Bank of Japan



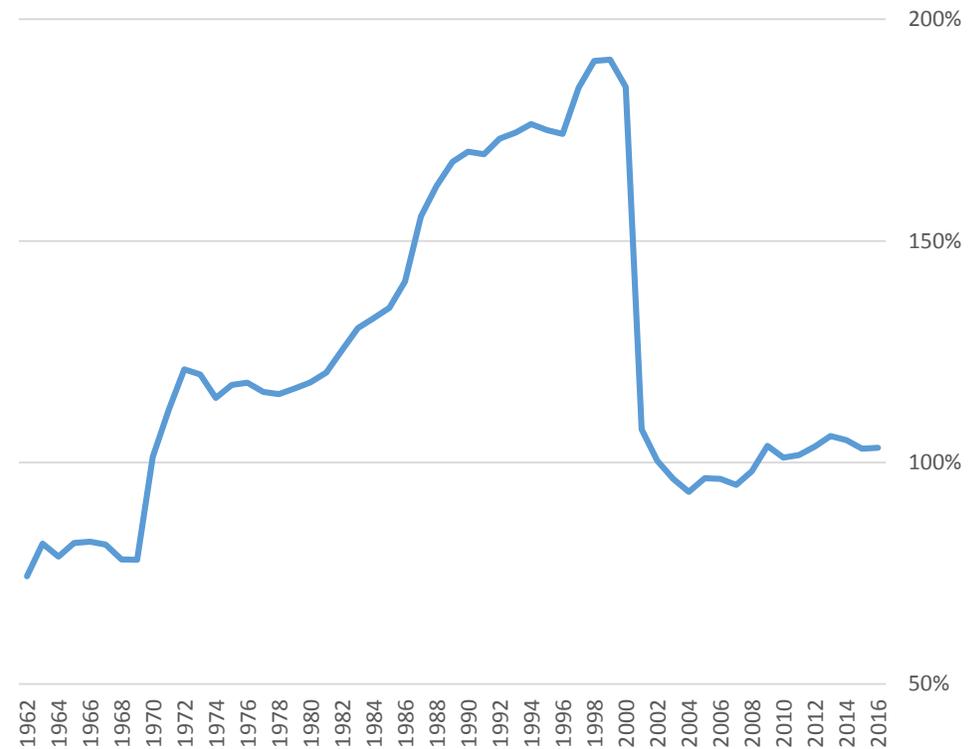
Source: Bank of Japan

The authorities expected that the increase in the volume of the monetary base (cash and other most liquid instruments) would cause the growth of bank lending, which would contribute to inflation and economic growth. However, these measures have not had the desired effect. Prices did not move into the zone of sustainable growth, and GDP growth rates remained extremely low.

The problem was that the growth of the monetary base did not lead to an increase in lending. After the explosion of the financial bubble, banks remained with a huge portfolio of overdue loans, the collateral for which did not cover the cost of debt. Under normal circumstances, such banks would go bankrupt, but the state artificially supported them afloat, fearing social instability. Overburdened with bad debts, banks preferred to direct their funds not to lend to the real sector, but to strengthen their liquidity and create reserves. The ratio of bank loans to GDP collapsed in 2001, and has fluctuated around 100% since then.

Funds directed to the real sector of the economy were mainly invested in infrastructure projects, often inefficient and redundant.

Private sector lending by commercial banks (% of GDP)



Source: Bank of Japan

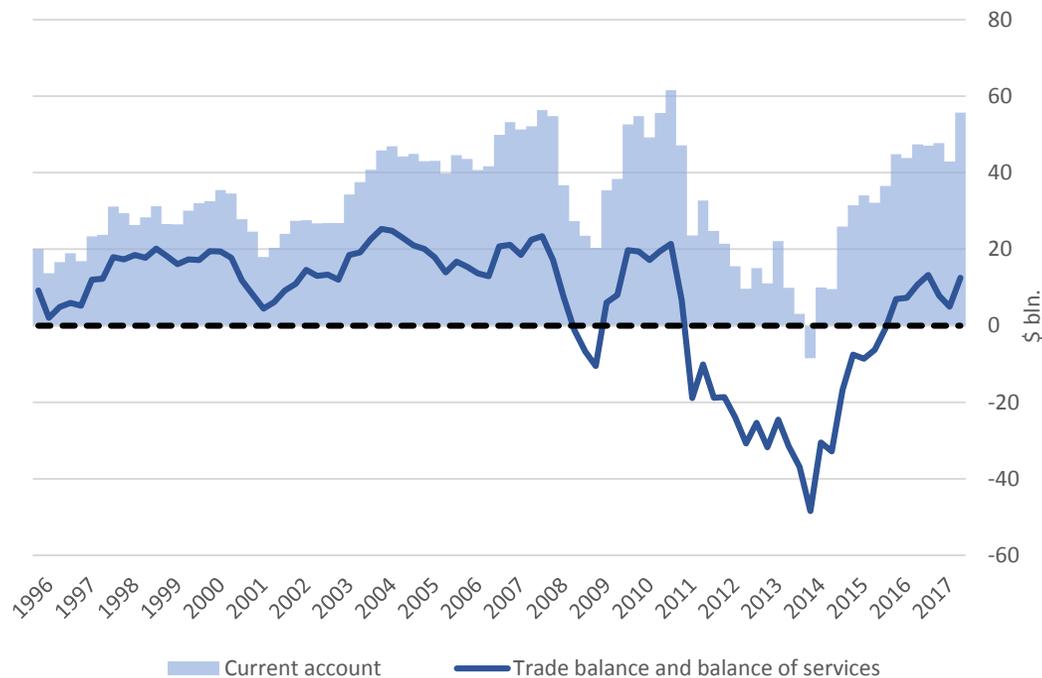
Pillars of an economic miracle

Post-war economic miracle of Japan was based on two key aspects - strong exports and a high saving rate.

Only twice in the 21st century, the balance of goods and services went to negative territory - during the 2008 crisis and after the Fukushima accident in 2011, when the Japanese nuclear power plants were stopped and the energy carriers had to be imported in large quantities. At present, Japan has returned to its traditional positive foreign trade balance of goods and services, although not as strong as before. But even in times of negative trade balance, the annual account of current operations remains surplus, due to Japan's huge income from foreign investments.

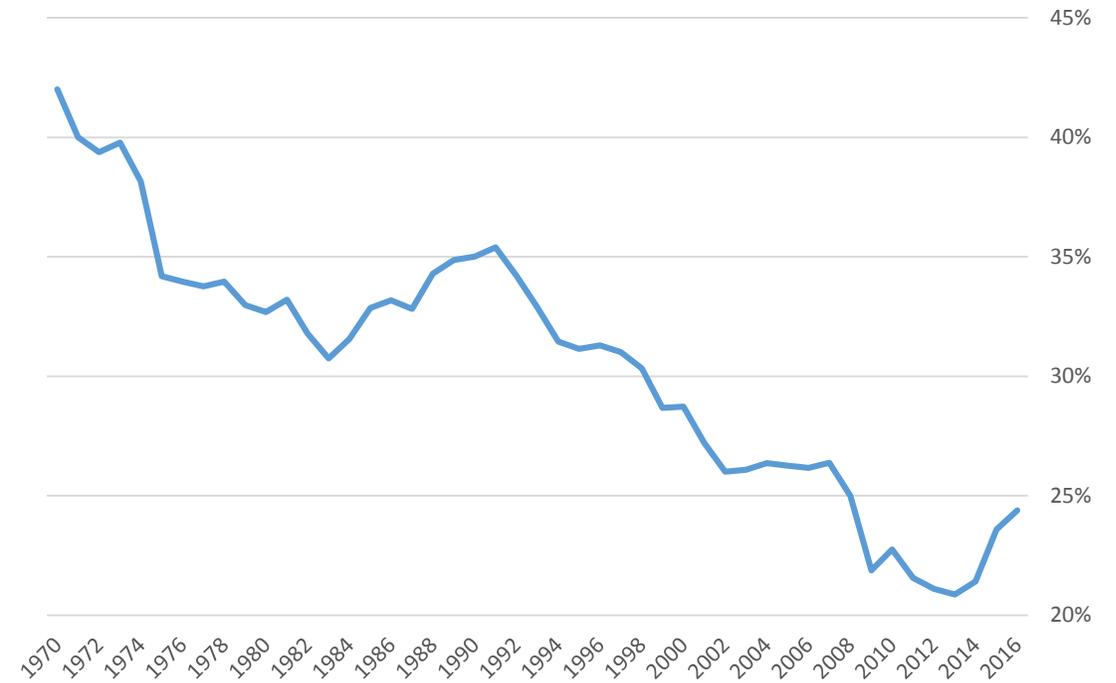
The high savings rate, which previously allowed for significant investment in the Japanese economy, now differs little from the average level of developed countries. In recent years, the situation has improved slightly, but the return to the values of the XX century is unlikely to be expected. Japanese society has changed quite a lot since the post-war era, and social welfare has allowed savings to be treated more lightly.

Current account, by quarter



Source: Ministry of Finance

Gross domestic savings, % of GDP

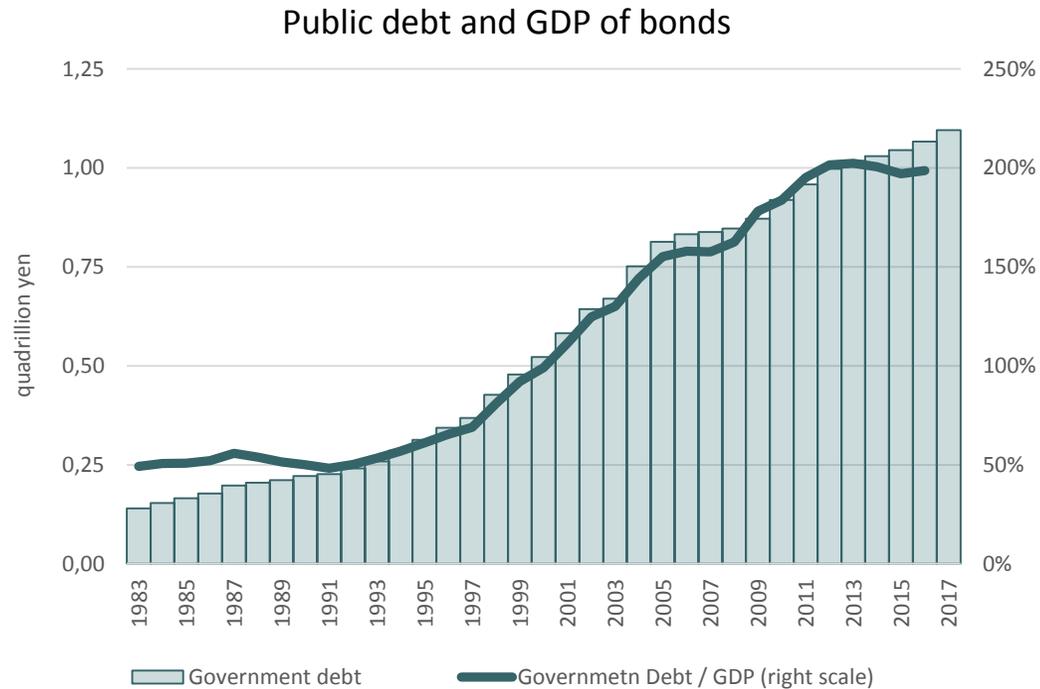


Source: Ministry of Finance

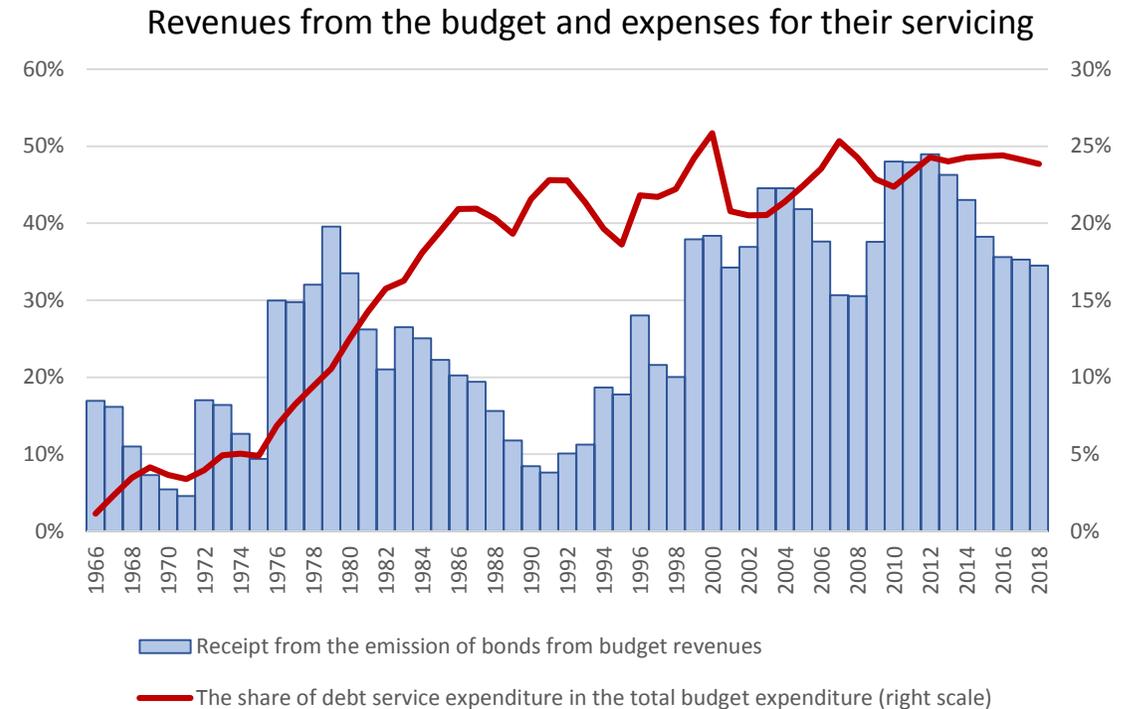
Dependence on debt

Due to measures to stimulate economic growth, Japan's public debt began to grow rapidly. By 2012, Japan's national debt has reached quadrillion yen and twice exceeded the country's annual GDP, which is an absolute record among all countries in the world.

In public finances of Japan, debt plays a huge role. Last year, proceeds from bond issues accounted for more than a third of all budget revenues, and in 2012 this share was 50%. And the cost of debt servicing since the mid-90s is slightly less than 25% of all budget expenditures, and that's despite the incredibly low interest rates.



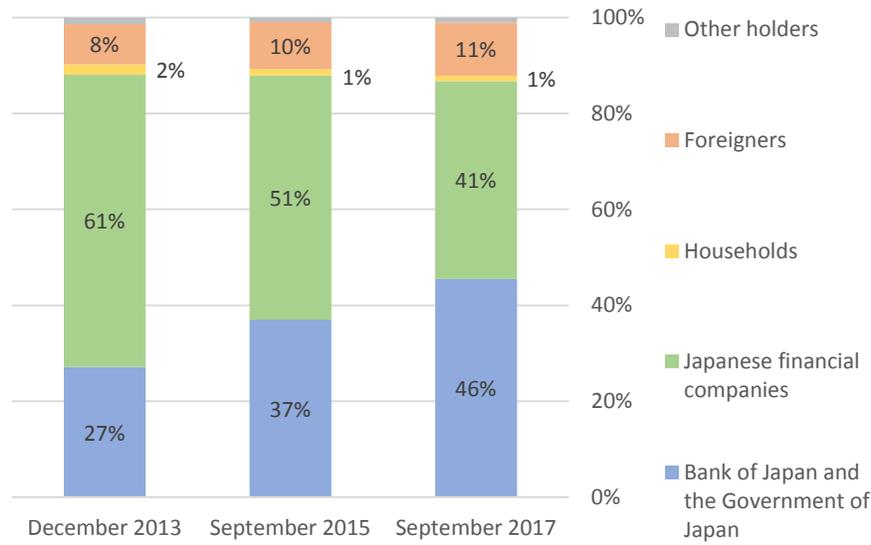
Source: Bank of Japan



Source: Ministry of Finance of Japan

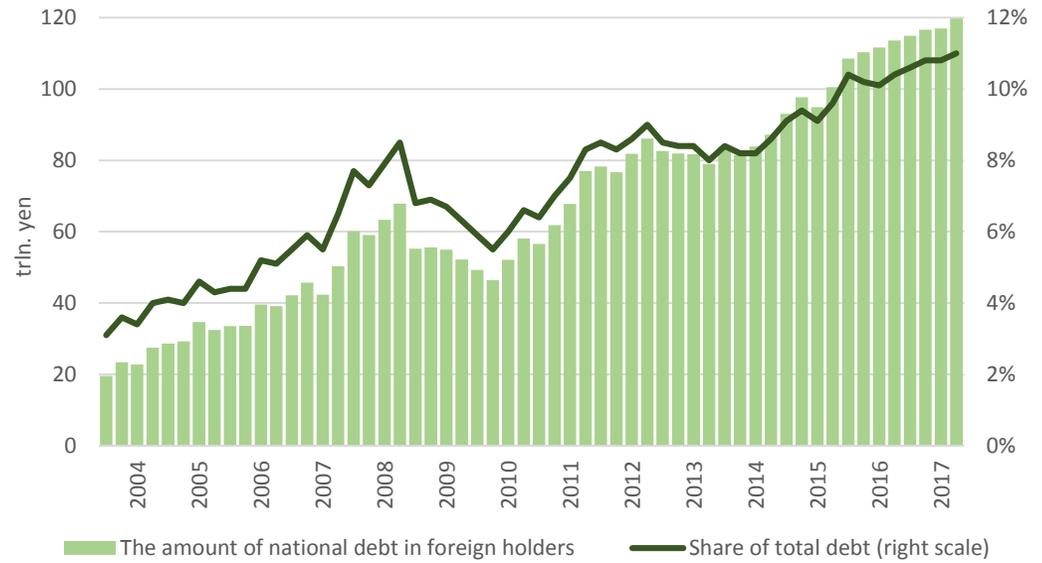
The structure of debt somewhat softens the problem of its size. Most of the debt belongs to national holders, and in 2017 the largest holder was the Bank of Japan, which bought most of the bonds during QE programs. However, the share of foreign holders is gradually growing. In general, foreigners are concentrated in short-term securities, up to one year, where they own more than half of the volume. But even more long-term bonds are in increasing demand.

Structure of state debt ownership



Source: Bank of Japan

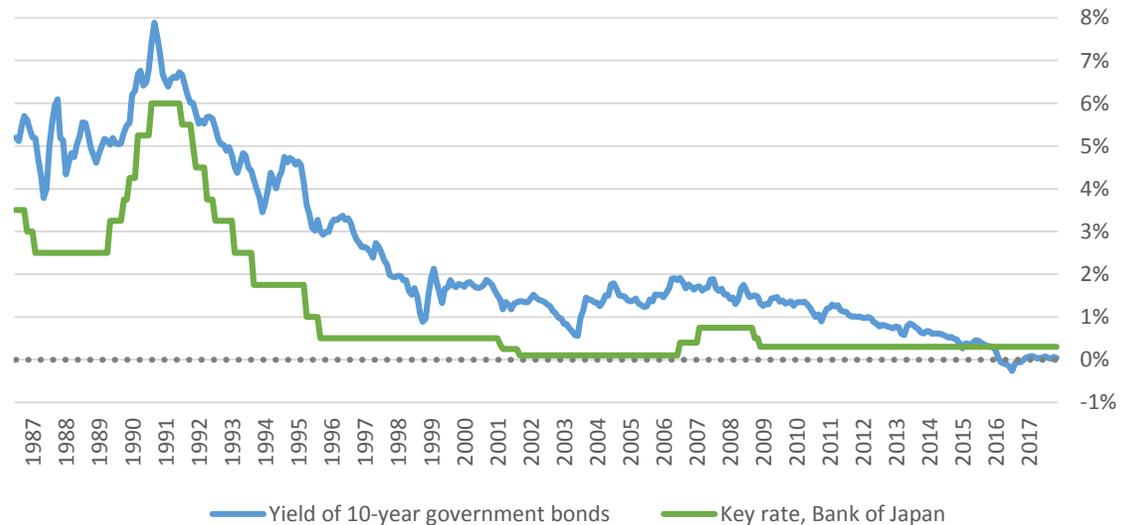
Government bonds owned by foreigners



Source: Bank of Japan

So far, Japan's huge public debt is not too burdensome for the state budget. The yield on the bonds is extremely low, even below the discount rate of the Bank of Japan. But if efforts to inflate the economy with money eventually will cause the desired for the Japanese inflation, then the discount rate will have to be raised, which will inevitably cause an increase in the cost of debt servicing. Given the size of the debt, consequences can be catastrophic.

The yield of government bonds and the discount rate of the Bank of Japan



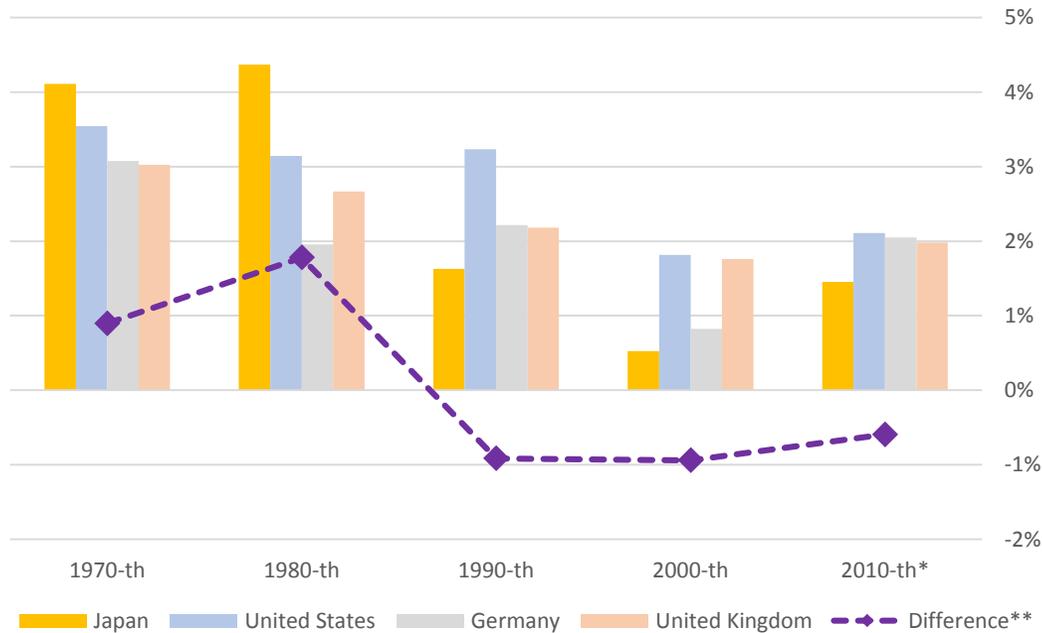
Source: Bank of Japan

Adjustment for demographics

So, since the 1990s, Japan's economy is starting to experience a slowdown that has not ended so far. The GDP growth rate fell below the average growth of other developed economies.

However, it would be incorrect to compare GDP growth without taking into account demographic aspects. Japan has one of the lowest fertility rates in the world, and unlike other advanced economies, Japan is almost not attracting migrants. If we look at the GDP growth depending on the number of people of working age (conditionally from 15 to 64), the picture looks different. Of course, in the 90's Japan experienced a long recession, but by the beginning of the XXI century it caught up with the developed countries.

The average annual growth of real GDP in US dollars

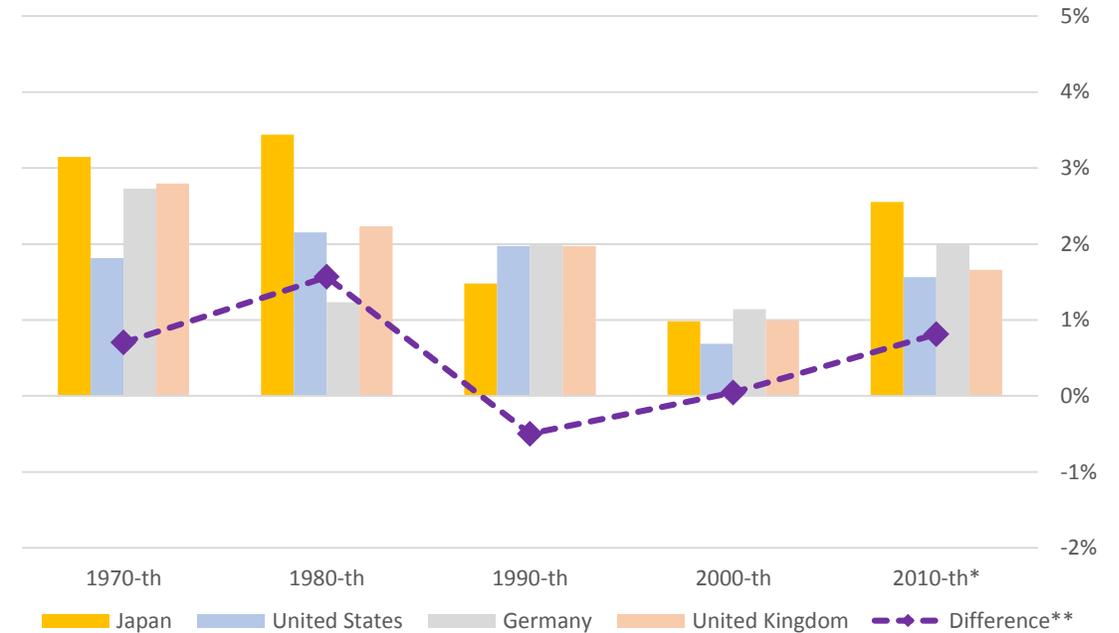


Source: World Bank

* 2010-2016

** between the Japanese index and the average of the USA, Germany and Great Britain

The average annual growth of real GDP in USD per capita of the working-age population (15 to 64)



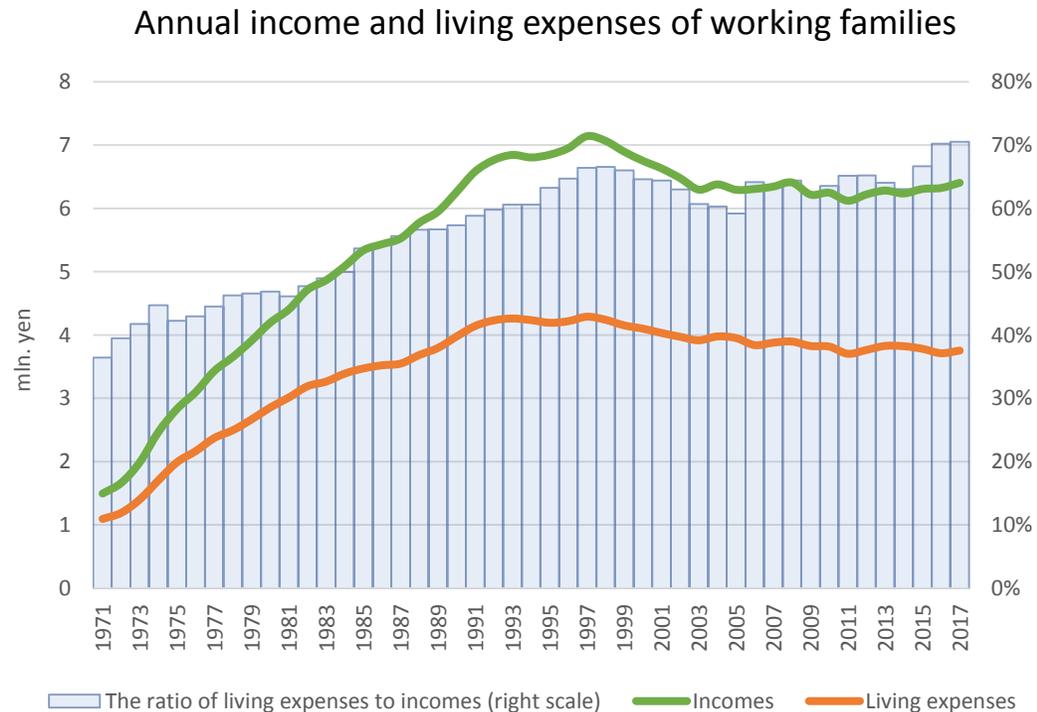
Source: World Bank

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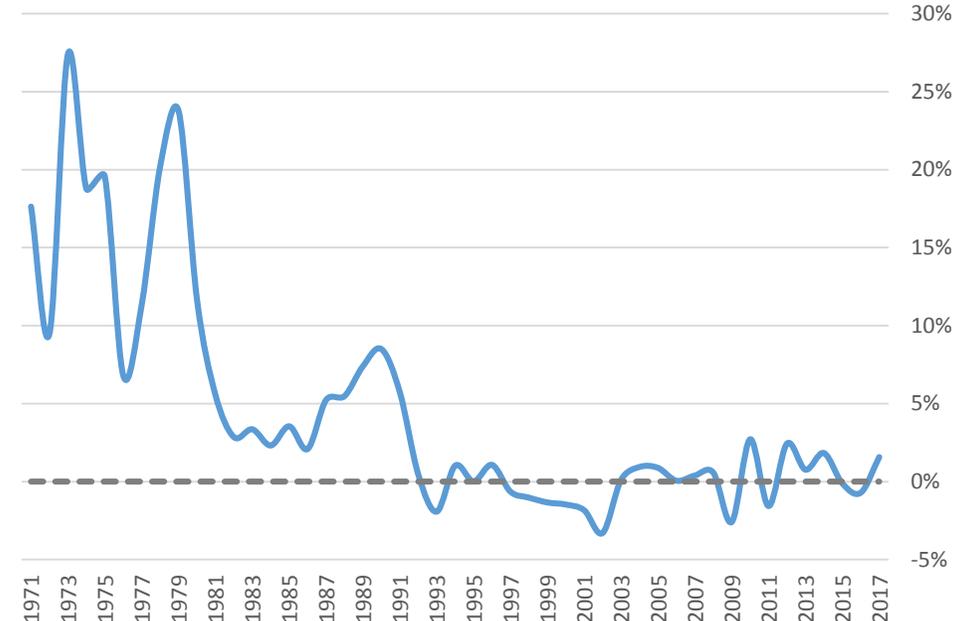
The limit of quantitative growth

Stagnation and deflation in Japan can be explained by other reasons. It is quite possible that Japan has simply reached the limit of saturation of consumer demand. Most of the Japanese have achieved the desired level of physical well-being by the end of the last century, and their descendants are satisfied with this level. And since this country has one of the lowest social inequality rates in the world, there is no “reserve” in the form of the poor, who are diligently improving their financial situation.



Source: Ministry of Internal Affairs and Communications of Japan

Dynamics of retail sales, average for the year, constant prices



Source: Ministry of Finance

An alternative but non-contradictory explanation concerns the transition of mankind to a new technological order, when old indicators measuring the development of the industrial economy can no longer adequately describe the new economic reality.

A textbook example - smartphones have replaced a huge number of devices (cameras, camcorders, navigators, players, etc.). The total cost of the replaced devices in the 90's was significantly higher than the price of a modern smartphone. Thus, the level of human life has grown, but so far there is no such indicator that would measure it. But in such a traditional measure of the economy as GDP, the transition from obsolete devices to a smartphone is reflected negatively, because the cost of the latter is generally lower. In addition, improving the quality of the goods at the same price does not add anything to GDP.

Similarly, with deflation - improving technology leads to cheaper goods and replacement of old expensive devices with more functional and cheaper ones. But this process should not be perceived as a threat to economic development, since it does not have a negative impact on the standard of living of the population.

It is possible that Japan, as one of the most developed countries on the planet, uses the maximum of opportunities of the current technological order. And the formal indicators of Japan do not reflect its developed economy, aimed at the quality in conditions of an aging rich population.

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