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Perspectives on deflation in Japan – 1

The strong yen is the primary reason for deflation, which is the root cause of Japan's economic stagnation

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Understanding Japan's deflation is the key to analyzing the current situation

Investors around the world are probably paying much attention to the question of how to interpret deflation in Japan. Pessimists believe that that the rest of the world will follow Japan's lead. In fact, pessimists think that even the United States cannot avoid a downturn in stock prices. They point to the persistent excess production capacity resulting from the extremely easy monetary policy that followed the bursting of the U.S. asset bubble, arguing this will lead to deflation and further lower interest rates .

I am convinced that this position is fundamentally flawed. The characteristics of both the demise of the asset bubble and deflation in Japan are unique to Japan. Events in Japan were completely unlike the current U.S. situation. This is why there is very little chance that the United States will repeat Japan's "lost 20 years." Right now, we are seeing the start of a strong recovery in the U.S. economy and stock markets. Prices of stocks in Japan and worldwide will most likely follow U.S. markets upward. I want to believe that the U.S. economy will stage a recovery without deflation, and that the benefits of this recovery will bring an end to deflation in Japan.

To subscribe to this outlook, we must first identify the causes of Japan’s deflation and determine if Japan can terminate deflationary forces. To answer these questions, Musha Research will examine deflation in Japan over the course of its next three Key Strategy Issues commentary publications.

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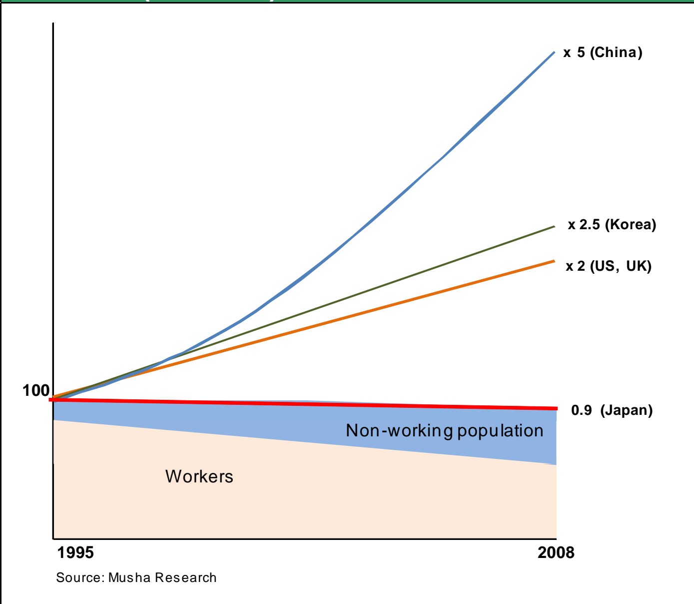
(1) Why was Japan the biggest loser? Deflation is the villain

Japan stands alone with no growth

There was absolutely no growth in the nominal size of Japan's economy because of deflation during Japan's lost 20 years. As Table 1 shows, based on nominal growth figures, the U.S. and European economies doubled during this period and the Chinese economy expanded by five times. Only Japan experienced no growth. Furthermore, as Japan's economy remained flat, there was a big shift in income to non-productive segments of the population (pension recipients, industries dependent on government support, etc.). As a result, there was less income remaining to reward people in Japan who are involved in producing goods. Declining remuneration for work eroded the morale of workers, creating a widespread sentiment that there were no opportunities for advancement. Japan fell far behind other countries in terms of its real economy as well as the performance of its stocks. There was also a drop in prices of various assets. For example, real estate prices fell even as other countries saw real estate values surge. These problems made Japan's economic stagnation even worse.

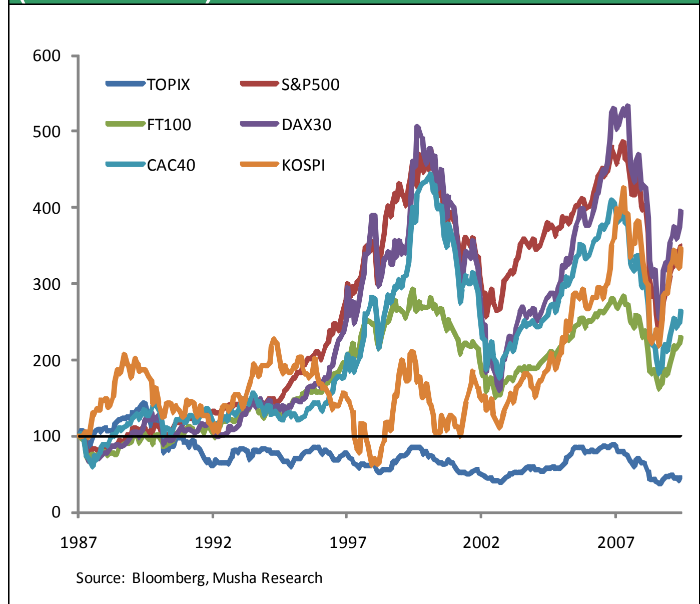
Some people believe that economic stagnation and the long-term deflation that caused this stagnation are not unique to Japan. They view this problem as a worldwide phenomenon linked to the age in which we live. Japan's problems started with the bursting of the asset bubble, which then led to a financial crisis and long-term deflation. One view is that the United States and the rest of the world will follow Japan's bad example. To determine if this stance is valid, we need to ascertain whether or not Japan's prolonged period of no growth and deflation is a phenomenon unique to Japan or an event that can happen anywhere in the world. That means we must identify the causes of Japan's lost 20 years.

Figure 1 : Nominal Economic Growth of Major Countries (1995=100)



Source: Musha Research

Figure 2 : Stock Prices in Major Countries (1987/7/31=100)

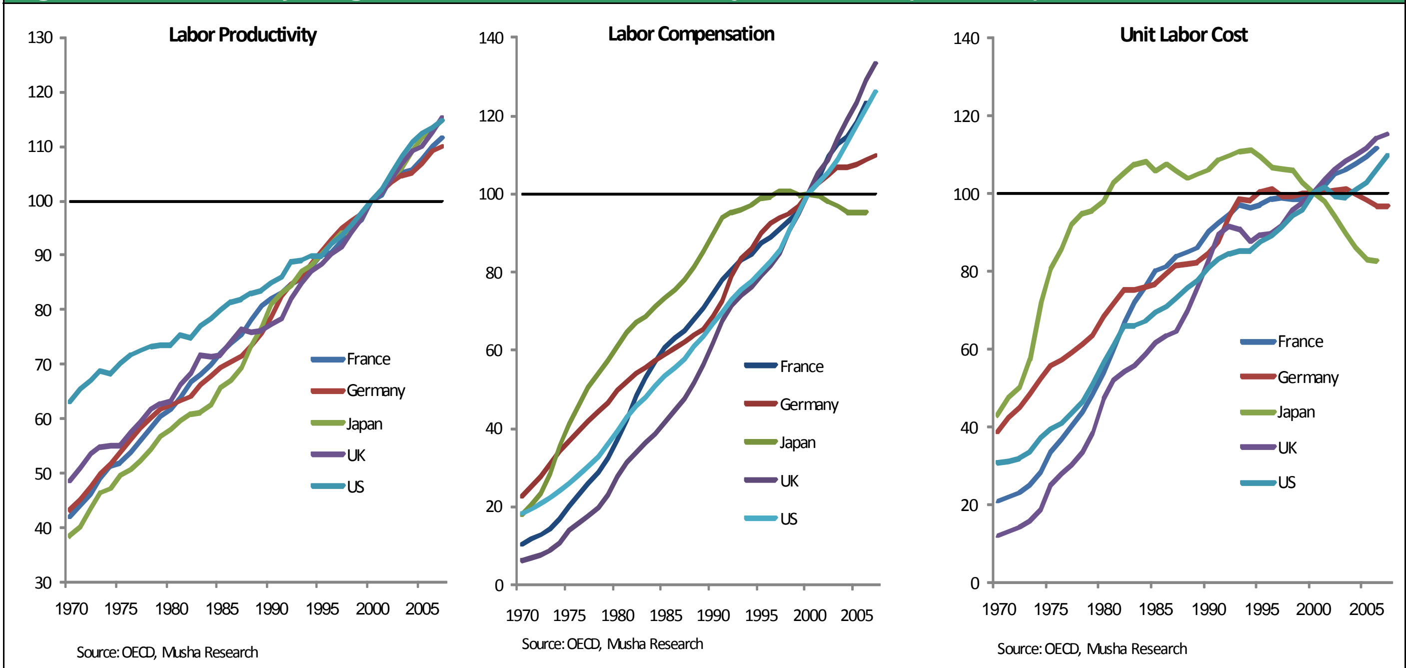


Source: Bloomberg, Musha Research

Nominal wage stagnation (declines) that occurred only in Japan

A decline in wages was the most significant characteristic of Japan's prolonged period of stagnation. But wages fell because of a number of factors that exist only in Japan. Table 3 shows labor statistics in a number of industrialized countries. As you can see, these figures show a trend starting in 1990 that took place only in Japan. First, Japan's labor productivity was consistently outstanding before 1990 and afterward following the end of the asset bubble. But only in Japan did wages start falling in the first half of the 1990s. The result was a dramatic drop in Japan's unit labor cost in relation to other industrialized countries. This is peculiar because common sense tells us that wages should rise along with productivity. However, there has been no correlation at all between wages and productivity in Japan for an extended period starting in the middle of the 1990s.

Figure 3 : Productivity, Wages and Unit Labor Cost in Major Countries (2000=100)

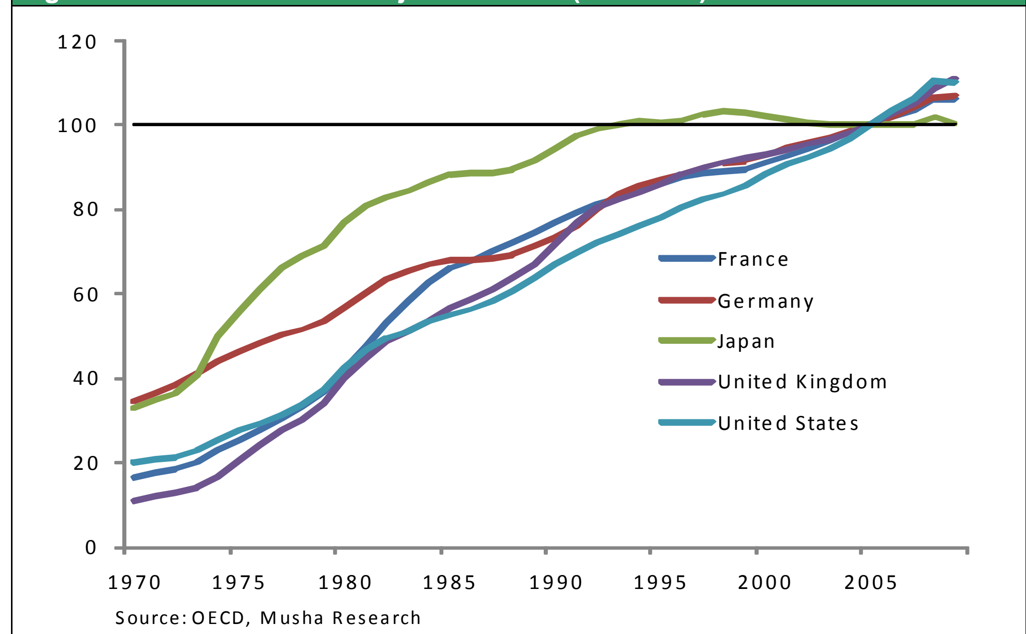


The negative trap of rising productivity

Why did only Japan experience deflation as wages fell despite the outstanding productivity of Japanese workers? Rising productivity has two consequences. Unfortunately, Japan went down the path to the wrong one. Improvements in productivity contribute to economic growth and a higher standard of living. But this contribution does not always lead to a happy ending. The following unwanted consequence can also occur. First, rising productivity allows companies to reduce investments in labor, which causes unemployment to climb. In this case, corporate earnings are detrimental to the incomes of workers. Consumption shrinks and wages fall as the supply of available workers increases. Deflationary pressure grows as a result. This is precisely what happened in Japan.

In most instances, though, rising productivity gives companies more earnings that can be used for internal growth, wage hikes, higher dividends and other actions that produce new sources of demand. Ultimately, this process creates more jobs. A country's economic growth rate becomes even higher and its citizens enjoy a better standard of living. For some reason, this cycle did not take place in Japan since the second half of the 1990s. This leads to the question of why the higher earnings that should have accompanied rising productivity did not create new demand and new jobs in Japan.

Figure 4 : Price Indexes in Major Countries (2005=100)



(2) Why did deflation do so much damage to Japan?

Deflation and a strong currency at the peak of the British Empire

Deflation has many faces. Sometimes, deflation produces benefits. After all, deflation cuts costs for companies and consumers alike, which causes real incomes to climb. Furthermore, the value of the country's currency increases because of the upturn in purchasing power. Currency appreciation further boosts purchasing power for foreign goods, thereby improving terms of trade. A good example of this is the Victorian age. In Britain, there was a prolonged period of deflation between 1870 and 1890. But Britain did not experience a stagnant economy as in Japan. Real economic growth during this period was about the same as even other major countries of the day that were catching up with Britain. Between 1873 and 1899, the average annual growth rate for per capita GDP was 1.2% in Britain, 1.9% in the United States, 1.3% in France, 1.5% in Germany, 0.3% in Italy and 1.1% in Japan (Yukinobu Kitamura, Shukan Diamond, April 4, 2009).

Under the gold standard, deflation immediately caused a currency to appreciate. This appreciation greatly enhanced the country's ability to make overseas investments. These investments were used to build the foundation for the massive financial income generated by the British Empire. At the time Britain was relinquishing its position as the world's leading industrial country to the United States, Germany and France. But Britain was at the same time reinforcing its position as a country that used financial strength to rule the world. During the Victorian age Britain accumulated considerable overseas financial assets. British finances controlled the world, strengthening the stream of income that allowed the country to essentially live on interest income. Overall, Britain was able to sustain economic growth fueled by a virtuous cycle in which financial income created a stronger finance industry and growth in domestic demand.

The differences between Victorian and Japanese deflation

Deflation in Japan that began in the 1990s differed from what happened in Britain. Japan did not have the power or investment know-how to use the yen's strength to make overseas investments and loans for gaining control on a global scale. Owing in part to the urging of the United States to hold back, Japan was unable to realize its potential. Making matters worse, Japan's finance industry became weaker. This is exactly the opposite of what happened in Britain, which used a stronger currency and deflation to establish a position of financial supremacy.

Deflation was harmful to the finance industry and industries dependent on domestic demand

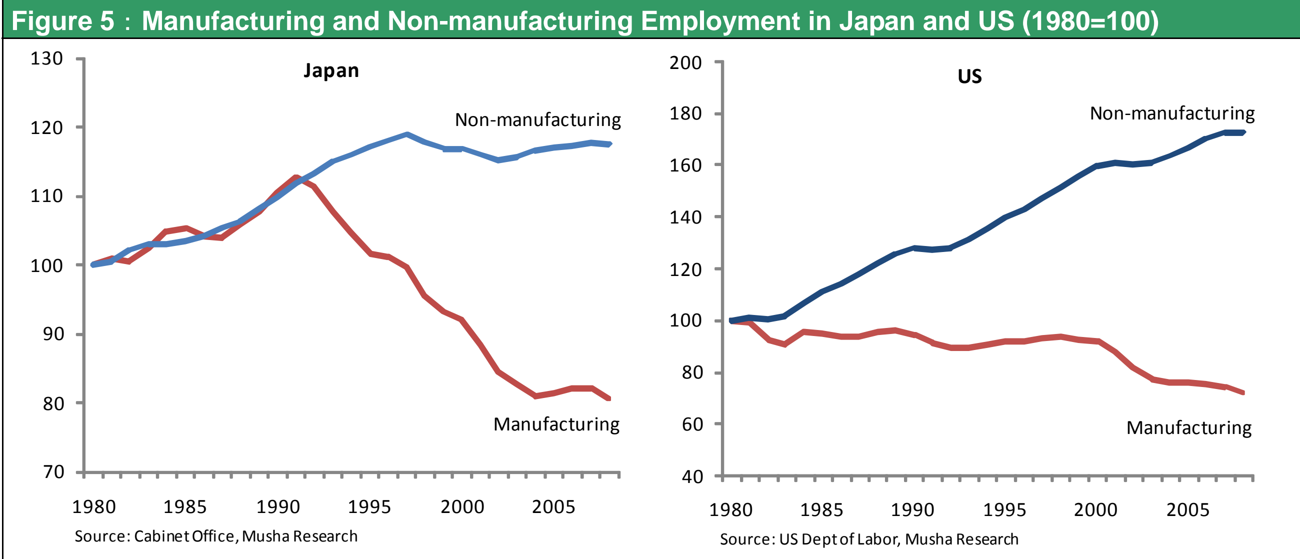
Japan's deflation did the most damage in two sectors. The first was industries like services and agriculture that rely on domestic demand. All these industries generally have only small improvements in productivity. That means raising prices is the only way to increase wages at the same pace as in other industries. Raising prices was easy when there was inflation in Japan. During this period, domestic-demand industries were able to use higher prices to increase earnings and salaries. But this was impossible once deflation started. There was a negative impact on many service sectors linked to domestic demand and the regional economies that depend on these service sectors. The second sector that was damaged was the financial sector. Demand for loans was brought down by both the shrinking nominal economy and the increase in real interest rates caused by deflation. Making matters worse, falling prices of assets reduced earnings from investments and trading activities at financial institutions. Japan's financial institutions were unable to achieve a recovery in earnings even after eliminating their problem loans. This prevented these institutions from providing customers with loans and other funding.

In this difficult environment, only Japan's manufacturing sector was able to increase income consistently by raising productivity. But even manufacturers were unable to translate higher earnings into higher salaries for their employees in Japan. This is because the benefits of rising productivity were used to offset higher costs caused by the yen's appreciation and for overseas investments. As Table 5 shows, a turning point occurred around 1990 in employment in Japan, especially in the manufacturing sector. Since the number of non-manufacturing jobs remained flat as well, the gap in employment could not be filled. In the United States, there has been a slow loss of manufacturing jobs for many years. But this decline has been more than offset by steady growth in the number of non-manufacturing

jobs. Japan has been unable to fill the job gap created by the hollowing out of its industries as factories were moved overseas. But the United States used growth in domestic demand to fill the gap.

This is how falling wages and shrinking domestic demand produced a negative cycle in Japan. Consequently, Japan failed to reap the benefits of deflation and currency appreciation, which are two extremely favorable events, during the past two decades.

Figure 5：Manufacturing and Non-manufacturing Employment in Japan and US (1980=100)



(3) Why did deflation take hold only in Japan?

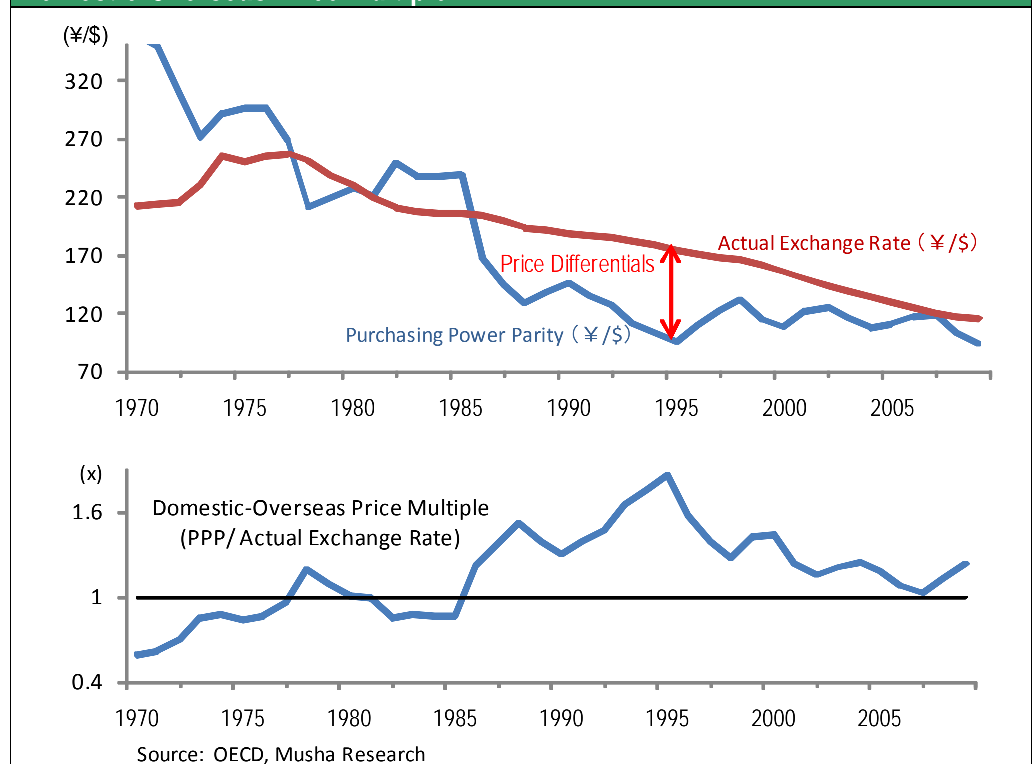
Little evidence for the deflation gap or for blaming the BOJ

There are several possible explanations for Japan's extended period of deflation. Among them are (a) mistakes by the Bank of Japan, (b) the big gap between supply and demand, and (c) global technology. There is no doubt that action taken by the Bank of Japan to end the asset bubble triggered deflation. But after that, the bank cut interest rates to zero, greatly increased its assets in response to the financial crisis and then pursued a quantitative easing policy. Clearly, we cannot place all of the blame for deflation on these financial initiatives. Pointing to the supply-demand gap is not a mistake. But again, this does not feel right. This is because deflation and the widening supply-demand gap are opposite sides of the same coin. Selling prices fall because supply and demand are weak. And this weakness is caused by deflation. This is a tautology (a needless repetition of an idea using different words that say the same thing). In other words, the supply-demand gap explains the situation that existed but not the cause of that situation. Global technology, the third possible explanation, is right on target for explaining the cause of deflation. However, technology is a worldwide phenomenon, so this cannot be used to explain deflation that was unique to Japan.

The case for blaming deflation on the strong yen

This discussion takes us to a fourth possible cause for Japan's deflation. Many people believe that the most likely explanation is that Japan became mired in deflation linked to the yen's strength. Early in the 1990s, there was a big upswing in the yen's value because of Japan's highly competitive industries and trade friction with the United States. As Table 6 shows, the dollar was worth about ¥190 at that time based on purchasing power parity. But yen appreciated to less than ¥100 to the dollar, creating a gap between domestic and overseas prices of almost 100%. Japanese companies were burdened with expenses within Japan that were twice as high as in other countries. This forced companies to cut costs, streamline operations and raise productivity. Under normal conditions, this price differential would be eliminated by a decline in the yen's value. But there was no reversal in the yen during the past two decades. Only the difference between rates of inflation in Japan and other countries could be used to eliminate the price gap. This is why Japan was subjected to powerful deflationary forces for more than 20 years.

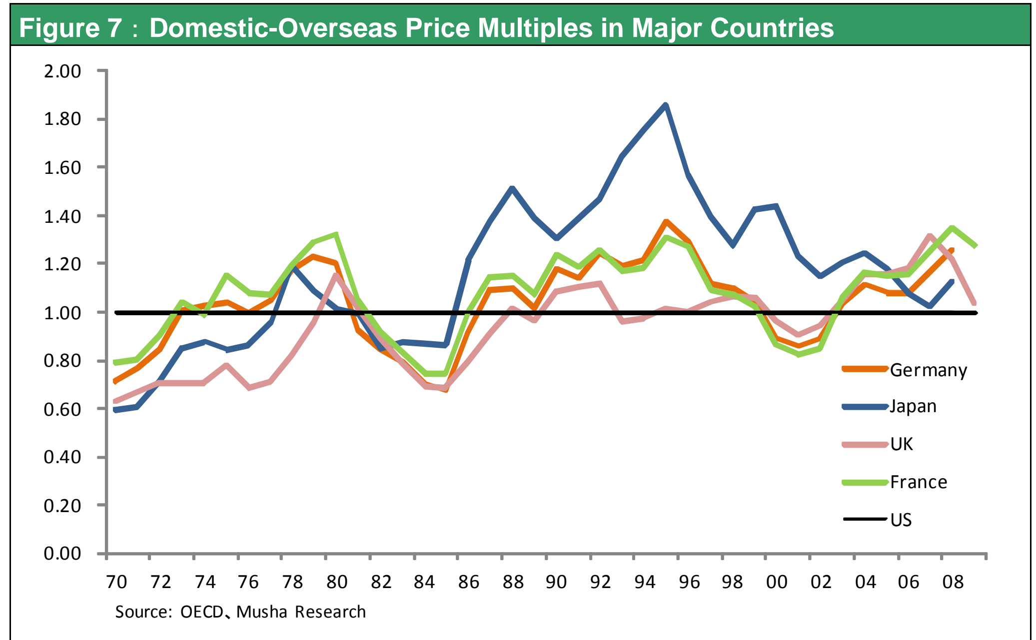
Figure 6：Purchasing Power Parity of the Yen and the Actual Exchange Rate, Domestic-Overseas Price Multiple



The abnormal appreciation of the yen

The rise in the yen's value was abnormal in several respects. First, the gap between prices in Japan and other countries was extremely large and did not end for a long time. Table 7 shows the internal-external price gap multiples for major countries since 1970. Currencies other than the yen all remained at a level where the price gap was about zero. After all, exchange rates converge at the purchasing power parity over the long term. But only the yen's market exchange rate remained far above its purchasing power parity. Symbolizing the magnitude of this disparity were media reports in the mid-1990s that the value of the Imperial Palace in Tokyo was equal to all of the real estate in California. The yen was obviously much too strong in relation to other currencies. But within Japan, the purchasing power of the yen plummeted as prices rose. Tokyo became the most expensive city in the world, making it the most difficult place to live in the world.

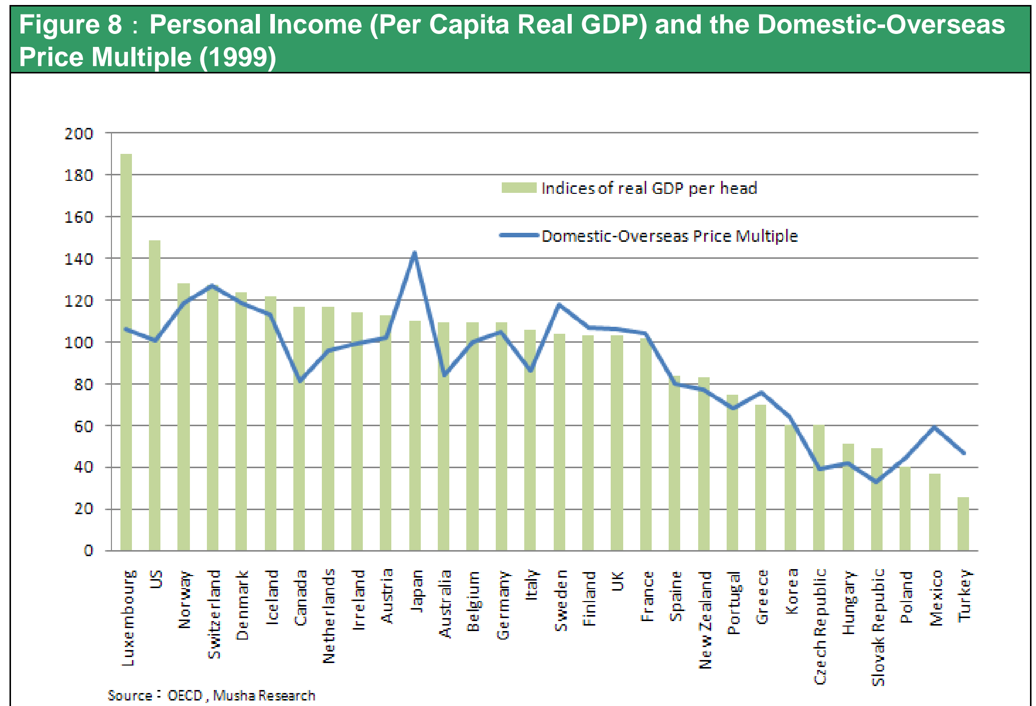
Figure 7：Domestic-Overseas Price Multiples in Major Countries



Source: OECD、Musha Research

The level of personal income in Japan is one more reason that yen's strength was abnormal. According to the Balassa-Samuelson hypothesis, which I will explain later, the difference between domestic and overseas prices should increase in proportion to level of income (equivalent to the level of productivity). But Japan had an extremely large price differential even though its personal income was not particularly high in relation to other industrialized countries (Table 8). The result was an increase in the yen's value even though Japan did not deserve to have a stronger currency.

Figure 8：Personal Income (Per Capita Real GDP) and the Domestic-Overseas Price Multiple (1999)



Source：OECD , Musha Research

The excessive strength of the yen was the price Japan paid for its free ride

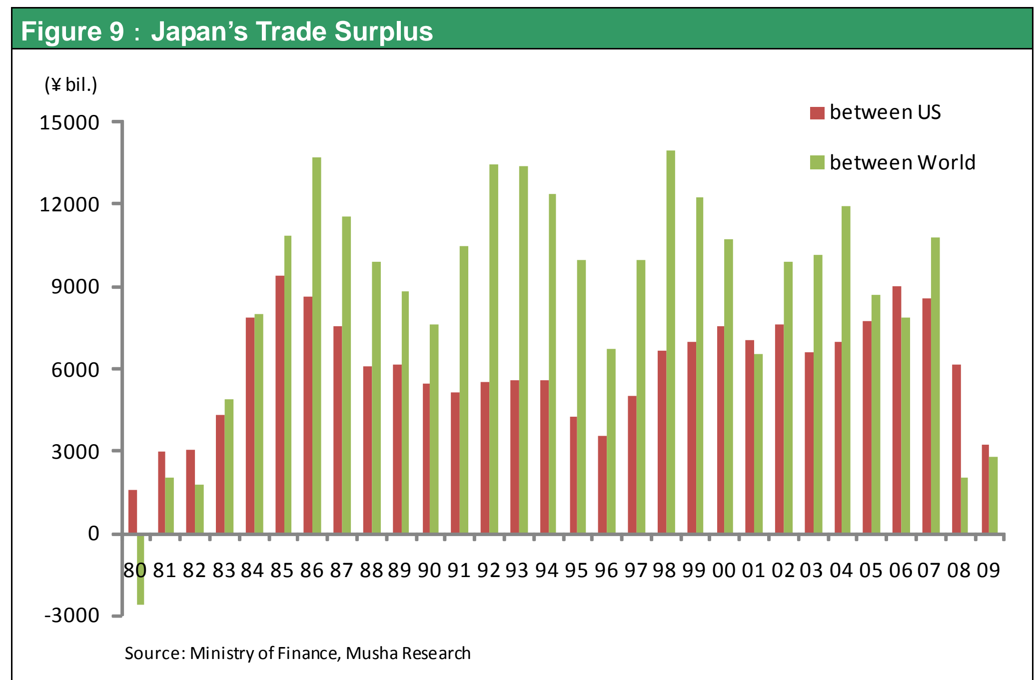
Why did the yen stay far above its purchasing power parity for such a long time? The reason is that Japanese companies became too competitive at one time, causing steady growth in Japan's trade surplus. The Japanese economy's free ride (made possible by generous U.S. technology sharing, U.S. open markets and other benefits) in the postwar era is undoubtedly a major reason that the country's industries were so competitive in the 1990s. A currency that became too strong was in one respect the price that Japan ended up paying for this free ride. In the 1970s, the yen was too weak. Japanese companies were able to use the undervalued yen to become extremely competitive. The recent excessive strength of the yen was therefore probably just a way to offset this prior period of weakness.

However, this explanation does not mean that people should view the yen's strength as a sinister plot for punishing Japan or holding back Japan's economic growth. The U.S. industrial infrastructure would probably be severely damaged if Japan were allowed to retain its overwhelming competitive edge with no appreciation of the yen. Doing nothing about Japan would have certainly produced significant political pressure to restrict the activities of Japanese companies. This would begin with a U.S. economic downturn and mounting criticism of Japan. Next would be criticism of free trade, calls for extreme protectionism and then the outbreak of a trade war. This is why the recent strength of the yen should be regarded as the inevitable penalty that Japan had to pay for the free ride that the country enjoyed many years earlier.

Japan has finished paying for its free ride

Japan has finally eliminated the huge international price differential (costs that rose faster than purchasing power) that existed at one point. The yen should be ¥115 to the dollar based on Japan's purchasing power parity using the 2009 GDP. Parity is clearly moving closer to the market rate. Moreover, Japanese industries are no longer as competitive as before due to the emergence of competitors from Korea, China and other countries. Japan's trade deficit is much smaller as a result. Furthermore, although Japan still has a current account surplus, this surplus is now overshadowed by China. After more than 15 years, Japan has finally finished paying for its free ride. There is no longer any need for the country to live with the consequences of a currency that has become too strong in relation to its purchasing power parity. Over the next year or two, I expect to see Japan start to come back to life now that the prolonged period of suffering from a strong yen has finally come to an end.

Figure 9：Japan's Trade Surplus



Source: Ministry of Finance, Musha Research

(4) The validity of the Balassa-Samuelson hypothesis

Strict application of the law of one price will produce inflation just as in other industrialized nations and increase the domestic-overseas price gap

I believe that the persistent deflation fueled by the yen's strength demonstrates the validity of the Balassa-Samuelson effect, which is a hypothesis in the field of international economics. Essentially, this effect confirms the principle that the law of one price will always prevail. Furthermore, the law of one price applies to tradable goods (manufacturing), meaning that the cost of labor having the same productivity (unit labor cost) will revert to the same level worldwide. In other words, (a) wages will rise quickly in countries where productivity is improving rapidly and (b) wages will rise slowly in countries with low productivity growth rates. In this case, because of arbitrage within individual countries, the growth rate for wages for non-tradable goods (services), where there is no international competition, will be high in the above category (a) countries and low in the category (b) countries.

The problem here is the differences in growth rates of productivity. For tradable goods, productivity growth rates differ greatly from country to country because these goods are capital intensive. But since non-tradable goods are labor intensive, there are only small differences in productivity growth rates worldwide. For instance, there is not a big difference in the productivity of barbers in industrialized and developing countries. However, even though productivity is the same, service-sector wages are high in countries with high productivity growth rates and low in countries with low productivity growth rates. Therefore, in countries with high productivity growth rates, purchasing power parity falls because of inflation in the service sector (to absorb high wages). In countries with low productivity growth rates, purchasing power parity increases because there is no inflation in the service sector. The bottom line is that the higher productivity rises in industrialized countries (countries with high incomes), the lower the purchasing power parity of a country's currency will fall in relation to the market exchange rate. The result is a larger gap between domestic and overseas prices. This is why I stated earlier that it is abnormal for Japan to have such a large international price differential even though Japan does not have a particularly high level of income.

Why a strong yen causes deflation and a weak yen causes inflation

We should recall that the Balassa-Samuelson effect had a completely opposite effect when the yen was extremely overvalued. What happened? As the yen appreciated, wages fell (in relative terms) in Japan's tradable-goods industries. This caused wages to decline in the non-tradable-goods sector as well, resulting in deflation across the entire Japanese economy. Deflationary forces will become stronger if a lack of flexibility in exchange rates keeps the yen at a high level. But the opposite effect is also possible. In this case, a weakening yen would cause wages to climb (in relative terms) in Japan's tradable-goods sector. This would push up wages in the non-tradable-goods sector and generate inflation.

Let me point out that if the yen remains weak the Balassa-Samuelson effect could kick in, igniting inflation.

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