



Raising consumption tax rate will terminate a vicious circle in the Japanese economy

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The hike of consumption tax rate from 8% to 10% is coming soon in October. It will contribute to an improvement of not only long-term fiscal balance but the sentiment of household and the whole economy. This report provides an explanation why it will bring in such an impact.

Japan went into deflation far beyond a recession in the late 1990s. Several explanations have been made for the cause of the deflation, but what should be most emphasized is that Japan was trapped in a spiral between declining household confidence and worsening real economy during this period.

The first chapter explains how the Japanese economy deteriorated toward deflation. The second chapter shows how the deterioration affected sentiments of the household sector. The third chapter presents a simulation what might have been an alternative path, if appropriate policies had been taken in time.

1. Focus is on a period from 1996 to 2003

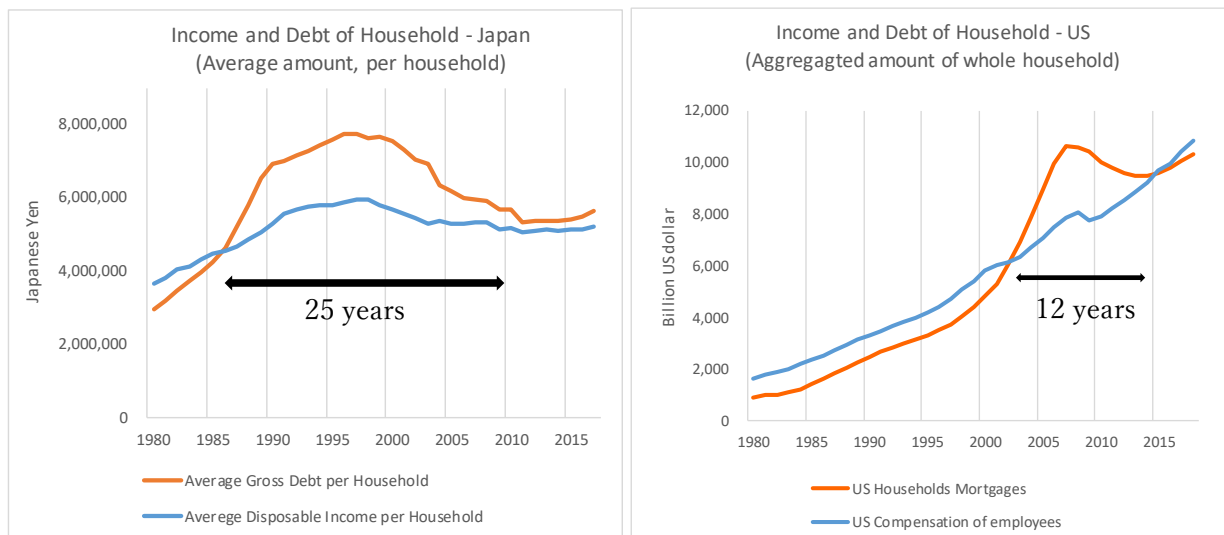
The focused time span in this research is from 1996 to 2003. Five years had passed and residential prices had fallen by 15% since the economic boom peaked out in 1991. In many cases of collapse of property booms in advanced economies, five to seven years were long enough to complete the adjustment of over-valuation, accompanied by a fall of prices by 15 to 20% from its peak. There are some cases in which prices fell more sharply by 30 to 60% such as in Finland (1989), US (2006) and Ireland and Spain (2007). The price adjustments were very drastic but the periods were shorter in such cases.

In Japan, property prices fell by 15% from its peak by 1996 but it was not at the bottom yet. Instead, the property market accelerated its fall after that and the decline of the prices continued for further eight years. One explanation might be that the price adjustment by 1996 was not big enough. But I would like to point out another factor. It is a fall of confidence of consumers.

2. How did the Japanese economy deteriorate in the late 1990s?

Boom and bust of an economy with sharp rises and falls of property prices is a familiar phenomenon in many countries, but the feature of Japan was in its length of adjustment. It took 25 years from the time when the debt of household exceeded its annual income in 1986 to the time when it fell back to the income level. In a similar case in the US in the late 2000s, it took twelve years. Why did it last so long in Japan?

Figure 1:



(Source) Bank of Japan, Statistics Bureau of Japan

(Source) Federal Reserve, Bureau of Economic Analysis of US

Looking back at the period between 1996 and 2003, Japanese economy experienced several unfavorable events. Working population peaked out in 1996. Though it did not have an immediate damage in the labour market, it certainly had a sentimental impact on the whole economy. The next year, 1997, was a very bad year. Big financial institutions, Yamaichi Securities and Hokutaku Bank, went bankrupt, which triggered a financial crisis. In the following 1998, non-performing loans surged in the banking industry, which gave rise to a nationwide credit crunch. Balance sheet adjustments went far beyond the level that such a soft expression as “adjustment” would suggest and turned into a “debt deflation.”

These happenings were followed by a second round of events. As a result of declining prices

and worsening economic sentiments, nominal income of employees stopped rising in 1997. Its impact on sentiment was crucial and concerns on “wage deflation” spread. Public sector workers experienced a wage cut in 2002, for the first time in modern history of Japan.

These years were also a period of reforms in medical care system. At the backdrop of expanding medical costs, the government decided to raise self-pay ratio of medical cost from 10% to 30% for non-elderly and high-income elderly and from 0% to 10% for those aged 70 and older . These reforms should have been regarded as events which could give people a positive conviction that Japan is preparing for an ageing society. On the contrary, it raised a concern among people that they could never expect the same generous social safety net as today.

Those events in the real economy and medical reforms affected the sentiments of people negatively. A myth in housing prices, “it never falls in Japan”, had gone. A myth in banks, “they never fail” had also gone. Deflationary mindset spread and became sticky. Trust in social security system was shaken.

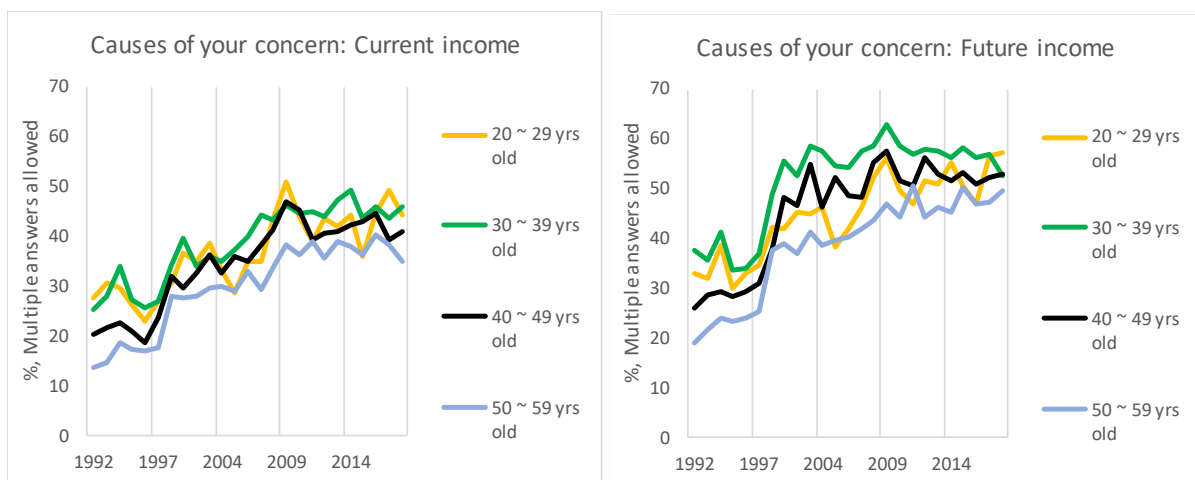
3. How did the deterioration affect the sentiments of young generations?

(1) Deterioration of the sentiments

The series of events in the previous chapter affected working generations. A governmental survey shows that the sentiments of these generations started to worsen in 1997 and they continued to stagnate for about two decades. Increasing number of people of all generations, according to the survey, thought current income was a major cause of concern in their daily life.

More remarkable thing was a concern over future income. It was in particular strong for those who were in their 30s and 40s. The percentage of people who regarded their future income as a major cause of concern rose sharply in 1998.

Figure 2:



(Source) Cabinet Office of Japan

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One of the major explanations for this change is debt overhang. Falls of property prices afflicted many mortgage borrowers with negative equity. Because the valuation of their property became lower than their debt outstanding, they became cautious about spending.

Negative equity was sure to have caused a change of sentiment in the household at the beginning of deflation. But the debt-to-income ratio, an indicator that shows how heavy a debtor feels the burden of borrowing is, started to fall in the 2000s and returned to a normal level in the 2010s. As a result of this normalization, borrowings of the household sector started to increase again. In spite of the reduced debt burden, however, overall sentiments of consumers never recovered.

There emerged a new cause of deflationary pressure; ageing. It was really a bad luck for Japan that this new devil silently took over the role of the old one and the economy was forced to stay under pressure.

(2) How did the new devil destroy the Japanese economy?

What we came to know from the experience of ageing is that ageing is not just a change of demography but it also means a change of politics. Counting the number of actual votes in the general election, 25% was by those aged 60 or older in 1986. The ratio became 49% in 2017. Half of the votes was by the aged or retired. With such a structural change, policies tended to reflect more and more voices which ask for current benefits regardless the cost of future generation.

According to a national statistics, the ratio of working age population (15 ~ 64) to aged population (65+) is currently 2.3 but it will become 1.4 in 2050. While old generations are having a fairly good life, young generations are suffering from heavy financial burdens. Yet, today's old generations may think that their life is not particularly good. But as compared with their life for future generations, for sure it is still good.

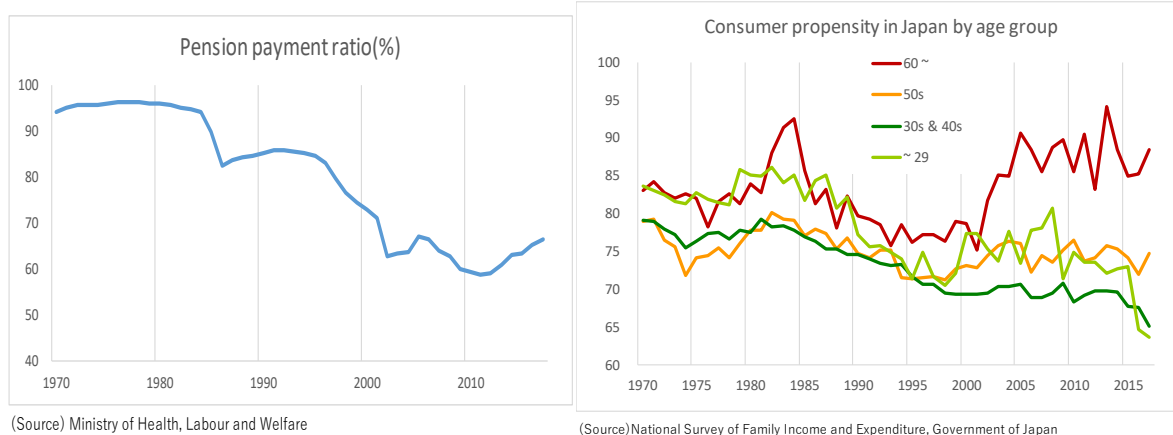
(3) Emergence of conservative consumers

Younger generations are becoming doubtful of social securities which they believed they were promised to receive when they get old. The result is a sharp fall of pension payment in the 2000s. Pension payment ratio used to be above 90 percent until the middle of the 1980s, but it started to fall since to 60% in the 2010s. The fall reflects their expectation that although they are paying fees today it is quite uncertain if they can receive the benefit in future. They do have a good reason to become disloyal to the system.

Such betrayed generations are becoming conservative consumers. They need to defend themselves by having a modest life and cutting back on unnecessary consumption, because they cannot rely on public social safety net. Consumer propensity ratio of young generations fell by 10 % points in the 1990s and has never recovered the previous level.

Low growth, low confidence and low sense of social unity became self-reinforcing factors of cause and effect and led the Japanese economy to a deflationary spiral.

Figure 3:



4. How can Japan change this path of deflationary spiral?

The hike of consumption tax rate from 8% to 10% is coming soon in October, but still there are some voices for a postponement because, according to them, economy is not good enough. Is this argument correct?

At the end of the 1980s, Japan started to move toward consumption tax. It was not early enough but not very late. The trend of advanced countries was already to encourage strengthening revenue base with indirect tax rather than direct tax. Japan was getting to follow this trend. However, we stopped moving on after raising the rate only twice; from zero to 3% in 1989 and 3 to 5% in 1997.

The path of the Japanese society after that was to lose a solid financial ground for an ageing society, which caused a loss of confidence and a decline in growth potential as discussed in the previous chapter. If it is the correct logic, it may be worth simulating the case of the other way round. What would have been the path if the consumption tax had been raised, if Japan had created enough financial base for ageing society and if young generations had not lost confidence?

Assumption

Let's assume that the consumption tax had been raised continuously from the early 1990s until reaching at 25%, which is a similar level in today's European countries whose ageing population has a similar proportion in total population.

Higher consumption tax reduces disposable income of households. But if the households are convinced that the continuing tax hike is a message that Japan is strengthening its revenue base for

an ageing society, they might act differently. The propensity ratio may show an early recovery to previous levels and the economy may grow at a higher rate driven by a stronger consumer confidence. The confidence of households may also give a positive effect on the birth rate of Japan and the business sentiment.

Estimation

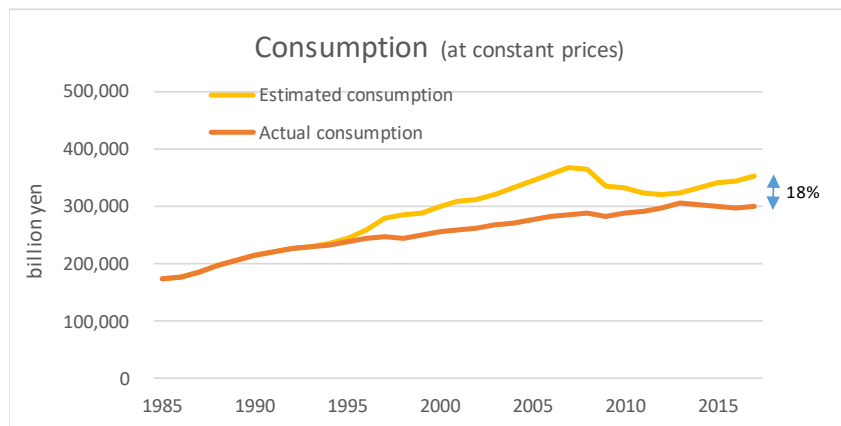
Estimation is given to the private consumption. The second round effects such as corporate investment are not included. The detail of the estimation is indicated in the following box, but the core essence is;

- a) Disposable income is reduced by the gap between assumed tax rate and actual tax rate,
- b) Consumption is, however, encouraged by higher consumer propensity ratio.

Estimation based on the assumption	
GDP: $eY(t) = eY(t-1) * \frac{Y(t)}{Y(t-1)} + eC(t-1) - eC(t-2)$	
Disposable income before tax: $eD(t) = eD(t-1) + (eY(t) - eY(t-1)) * 0.88$	
Disposable income after consumption tax: $ed(t) = eD(t) * (1 - \frac{eX - rX}{100})$	
Consumption: $eC(t) = ed(t) * eCPr$	
eY: estimated GDP, Y: actual GDP eD: estimated disposable income before VAT 0.88: elasticity of disposable income to GDP eC: estimated consumption ed: estimated disposable income after VAT eT: estimated consumption tax rate rT: actual consumption tax rate eCPr: estimated consumer propensity ratio	

The result shows the real GDP would have been 23% larger and consumption would have been 18% larger by 2017 than actual figures. These are because positive effects of higher consumer propensity ratio and its cumulative impact exceeded negative effect of higher consumption tax.

Figure 4:



(Source) Estimation based on the data of Statistics Bureau of Japan

5. Conclusion

There might be other estimations based on other assumptions. But it is fair to say that such a positive estimation as this is possible. Some politicians and economists are arguing that a higher tax kills consumer spending and tax revenues could become even smaller than before. But we should have a balanced view by paying attention to the positive effect of tax hike. It is a stronger confidence of consumers in their future.

To raise consumption tax rate is a step to convince people that “Japan is becoming a society responsible to all generations.” This announcement will make a difference in the household sentiment. Having less concerns on the future, consumers will start spending more than today. It is not too late to get back to the right track. By raising the tax rate as planned in October, hopefully it will provide the whole nation with a positive psychology. Vicious circle that has harmed us for decades should turn out to be a virtuous circle.

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