Capital Investment Cycle to Lead Japan's Post-Coronavirus Economy in Overcoming Structural Deflation

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V-Shaped Recovery on the Back of Upswing in Capital Investment Cycle

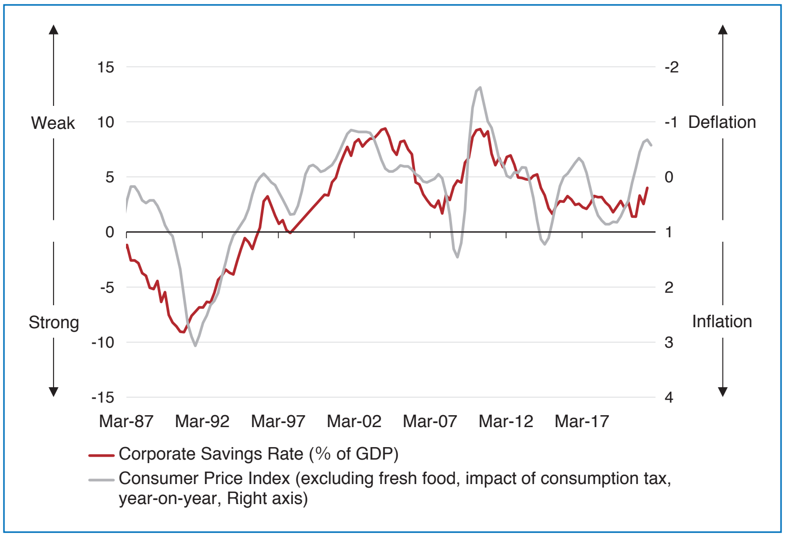
With the prospect of future economic growth in Japan currently being slim, corporations have been more focused on reducing costs, such as by restructuring, rather than investing. Wages have declined and household spending has suffered. In an ordinary economy, corporations raise capital to develop and expand corporate activities. Corporations borrowing capital would indicate a negative savings rate (indicating the existence of capital demand). But as corporations, like households, cut spending to save and continue to pay back debts as deleverage, savings rates have become abnormally positive (indicating no demand for capital). The abnormal positive range indicates excessive savings, which is a result of a decline in spending, and it becomes downward pressure on aggregate demand.

Consequently, since the bubble burst around 1990, the Japanese economy has been suffering from a weakness in domestic aggregate demand and deflation. If excessive savings of corporations are applying a destructive force on aggregate demand, the government should counter it by expanding demand. On the other hand, since corporate savings support the financing of massive fiscal spending, interest rates have been maintained at an extremely low level. Whilst capital demand existed among corporations (with corporate savings rates negative), the government was unable to part from the traditional knowledge that feared a fiscal deficit posing the risk of a sharp rise in interest rates. Although there was no capital demand from corporations (with corporate savings rates positive), the government remained passive on fiscal expansion. When overseas economies became stronger and somewhat booming, Japan went ahead with a tax rate hike and a reduction in fiscal spending, before overcoming weak domestic aggregate demand and deflation. Social safety nets intended to save the vulnerable were also cut. With a decline in wages, household spending weakened and demand dropped, causing a vicious cycle to further weaken corporate activities. The idea that wages fall, businesses shrink, and prices fall due to weakness in aggregate demand somehow became fixed in the economy over time *(Chart 1)*.

What frames the timing of overcoming deflation is a sharp rise in the willingness to invest on the back of the Fourth Industrial Revolution, for instance, and for the capital investment cycle to swing upward. Artificial Intelligence (AI), the Internet of Things (IoT), technological innovation including robotics, a new business model called the digital transformation, Information Technology (IT) investments by small and medium-sized enterprises which had thus far been lagging, decarbonization efforts, rebuilding of old and obsolete structures, urban revitalization, research and development, investment promotion factors such as adapting to the new norms of a post-coronavirus pandemic state, and experiences of utilizing IT under the pandemic, are all things that are expected to promote innovation and push the capital investment cycle upward. If the capital investment cycle swings upward, corporate savings rates will return to their normal negative range and the force that destroys aggregate demand will perish. Until the capital investment cycle swings upward, fiscal expansion needs to continue supporting aggregate demand, and an accommodative fiscal and monetary policy stance will likely be maintained. Recognizing the rise in long-term profit expectations, the chances of overcoming a deflationary structural recession may eventually arise. At that point, the Nikkei

CHART 1

Corporate savings rate & core consumer price index



Source: Bank of Japan, Cabinet Office, Ministry of Internal Affairs and Communications, Okasan Securities Co., Ltd. Created by Okasan Securities Co., Ltd.

Average should be well over ¥30,000 and continue rising. Fiscal 2021 saw the impact of Covid-19 and doubts about government authorities continuing with an accommodative policy stance looming, and with no major movement in capital investment in sight the economy saw a moderate U-shaped recovery and the market remained at a standstill. Fiscal 2022 should see an upward fluctuation of capital investment, a V-shaped economic recovery, and with a sense of security that accommodative polices will be maintained the market should show strong movements. If corporate savings rates revert to the normal negative range and destructive forces of aggregate demand perish, it will be possible to eventually achieve the 2% price target.

Three Macro Cycles Determining the Economy & Market

As a premise for constructing macro scenarios, an important responsibility for economists is to clearly explain both analytically and quantitatively the divergence of the real economy and the market, and also identify the macro logic that moves them. Nominal GDP fell by 2.1% from ¥556 trillion for the period October to December 2019, before the novel coronavirus pandemic, to ¥544 trillion for the period April to June 2021. On the other hand, the Nikkei Average rose by 34.3% between these two periods. Theoretically, the reason for this deviation was the massive easing of fiscal and monetary policy, but it has not been fully explained quantitatively. There are thought to be three reasons behind the rise in stock prices ahead of the real economy.

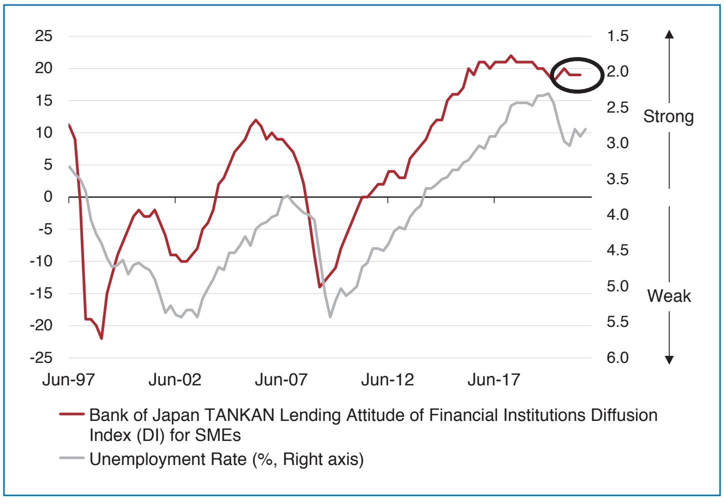
The first reason is that the credit cycle, which indicates whether the environment enables private credit to expand, did not stall. The Diffusion Index (DI) for Lending Attitudes of Financial Institutions to Small and Medium-sized Enterprises ("accommodative" to "severe") of the Bank of Japan's (BOJ) Tankan survey, which measures how much small and medium-sized enterprises feel it is easy to borrow from financial institutions, shows this credit cycle neatly. The DI had been at a plateau at around +20, but received downward pressure as corporate performances worsened with the surge in coronavirus infections. The government and the BOJ have been supporting the financing of small and medium-sized enterprises through measures such as special payments, credit guarantees, interest-free unsecured loans and financial easing, and the DI has averted a fall and has somehow maintained a plateau status. DI serves as a leading indicator for the unemployment rate, and one can see that in addition to the government's employment adjustment subsidies, the aggressive liquidity policy by the government and the BOJ has been supporting the credit cycle and contributed to maintaining employment *(Chart 2)*.

The second reason is that the capital cycle did not stall. Capital investment in the restaurant and accommodation sectors, whose earnings have been worsening with the surge in coronavirus infections, has been extremely weak. On the other hand, there are investment promotion factors on the back of the Fourth Industrial Revolution including digital transformation and decarbonization, and these factors are supporting corporate investment activities. Real capital investment as a percentage of GDP clearly shows this capital investment cycle. Compared to the past two recession periods, the decline in this ratio is very small. It is almost at the same level as the average for the period since 1994 after the bubble burst, and even with this restriction in economic activities, the capital investment cycle still remains at neither a boom nor a recession. The capital investment cycle is a proxy variable for long-term corporate profit expectations, and it shows that long-term profit expectations have not worsened as much as the shrinkage in short-term nominal GDP *(Chart 3)*.

The third and the most important reason is that the reflationary cycle, which affects the expansion and contraction of money, saw an upward swing. Expansion of money requires expansion of government and corporate spending. Corporate spending power is weak, and the extended continuation of an abnormal positive corporate savings rate has been causing weak demand and deflation. Government spending is also insufficient, and it has been

CHART 2

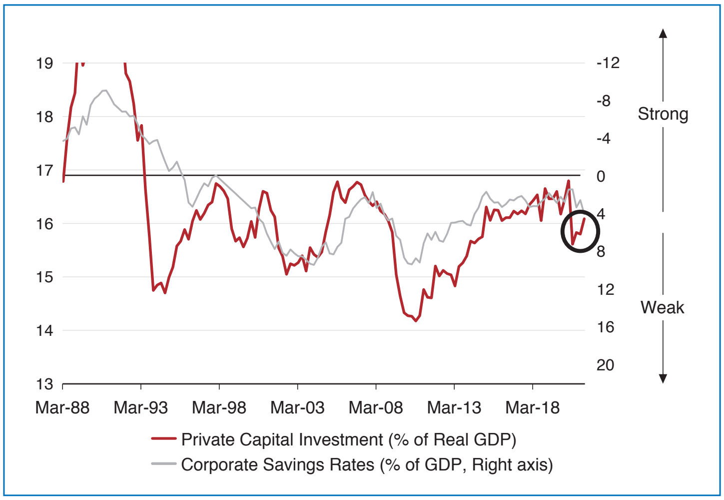
BOJ Tankan lending attitude of financial institutions Diffusion Index (DI) for SMEs which indicates credit cycle & unemployment rate



Source: Bank of Japan, Cabinet Office. Created by Okasan Securities Co., Ltd.

CHART 3

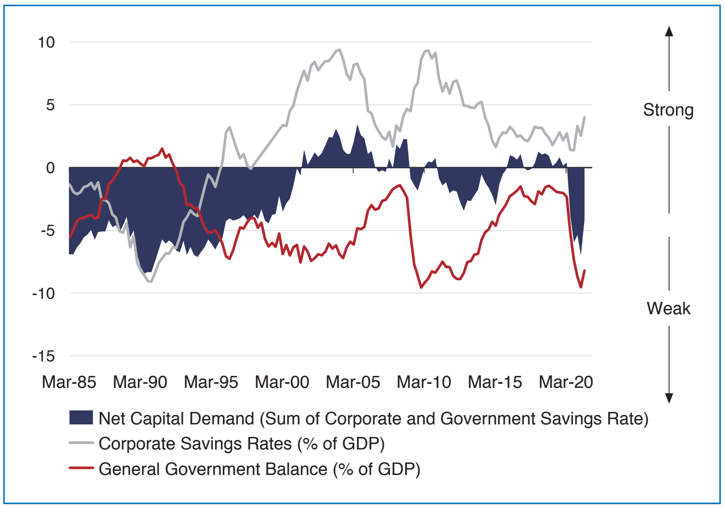
Real capital investment as percentage of GDP indicating capital investment cycle



Source: Cabinet Office, Bank of Japan, Okasan Securities Co., Ltd. Created by Okasan Securities Co., Ltd.

CHART 4

Net capital demand indicating reflationary cycle (corporate savings rates + fiscal balance)



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obstructing overcoming deflation. Net capital demand (average for four quarters, percentage of GDP, negative indicating strong capital demand) which is the sum of corporate savings rates and the fiscal balance, clearly shows this reflationary cycle. With the tight fiscal stance to date, which has included a hike in the consumption tax rate, net capital demand has disappeared and money has not been able to expand. Fiscal policy turned expansionary in an effort to constrain the impact of the rise in coronavirus infections, net capital demand returned to a huge negative, the reflationary cycle swung upward, expansion of money became stronger, and thus this is thought to have led to a huge rise in stock prices (reflation). The BOJ continuing with its monetary easing to actively monetize capital demand is also adding force. Someone's spending becomes someone's income, and thus a comeback of net capital demand signifies wealth moving from corporations and government to households, and also supporting this transfer *(Chart 4)*.

Fiscal Austerity Has Inhibited Movements to Overcome Deflation

Before the coronavirus pandemic, a tight fiscal policy was implemented to look like it was leading net capital demand, which indicates a reflationary cycle, to 0% (balancing corporate savings rates and the fiscal balance). There was a lack of mindset to utilize the benefits of a managed currency system which can inflate money, and having fully secured net capital demand through fiscal expansion, maintain the power to create aggregate demand, the power to expand the economy and money in the market with capital circulating, and the power to ensure income flows to households. If corporate spending is weak and corporate savings rates are in the abnormal positive range to destroy aggregate demand, there is a need to offset this by expansion of government spending in order to maintain solid economic growth. But it is thought that too much attention has been paid to the fiscal deficit to aim for a quick primary surplus, and this type of fiscal management, like the gold standard which stabilizes net capital demand at 0%, led fiscal policy to be too contractionary and thus became a huge burden on the Japanese people.

In order to continue revitalizing the reflationary cycle to overcome deflation, there is a need for an accommodative fiscal stance which could lead net capital demand to around -5% against GDP. If the reflationary cycle is pushed upward to maintain an expansionary phase for nominal GDP, it should be possible to revitalize corporate investment activities. In order to promote investment activities, a high-pressure economy where the market is somewhat booming and rewarding investments, and a rise in stock prices that will stimulate accompanying corporate activities will be necessary. As investment activities are vitalized and corporate savings rates comes down, even if an accommodative fiscal stance is maintained, the fiscal balance will improve with a natural increase in tax revenues through an economic boom. If a 1 point decline in corporate savings rates can improve the fiscal balance by 1 point, net capital demand, which is the sum of corporate savings rates and the fiscal balance, will stabilize around -5% of GDP, and national finances will head towards rebuilding with the reflation cycle remaining strong.

If an accommodative financial stance is patiently maintained, revitalization of corporate activities will lower corporate savings rates to around -5%, the fiscal balance will return to 0%, and all desired levels of net capital demand will be achieved at the hands of corporations. This is the desired form of overcoming deflation and a fiscal reconstruction. Currently when corporate savings rates are still positive and still have the power to destroy aggregate demand, there is a need to continue an aggressive fiscal expansion that will lead net aggregate demand to around -5% in order to achieve the price target.

This year saw Japan being left behind by the rise in US stock prices. The reason was thought to be not just the lag in coronavirus vaccinations. As the State of Emergency declaration continues in large urban areas, Japanese government policies to support households and corporations were shrinking, and there was also hesitation to use the reserve funds of the annual budget or to expand support through compilation of a new supplementary budget. In the United States, on the other hand, with the start of the administration of President Joe Biden, additional fiscal expansion was planned, net capital demand in the US further saw expansion, and expectations became higher for a further strengthening of a reflationary cycle. Japan is reluctant to undertake a fiscal expansion and there is a risk of the reflationary cycle weakening, and thus it was evident that the performance in stock prices would differ. While in the US, inflation expectations were rising with the strengthening of the reflationary cycle, a sense of deflation remains in Japan.

The difference in this sense of direction indicates the difference in the power of money in the market to expand, and as this difference in inflation expectations grows even larger, concerns over the appreciation of the yen will hamper the Japanese stock market. Weakened corporate activities and a reluctant fiscal policy will cause net capital demand to disappear, and if the reflationary cycle is stalled, the international current account surplus and a bad type of expansion brought on by sluggish domestic demand will occur and pose the risk of a sharp yen appreciation. If that happens, the fiscal balance will further deteriorate.

Upswing in Capital Investment Cycle Leading to Overcoming Structural Deflation

The government aims to swiftly implement economic measures that will limit the impact of the rise in coronavirus infections, including support measures for households and corporations. In addition, next year it will likely implement further economic measures that will strengthen the economic recovery after the epidemic has been contained. It will be indicated that the fiscal stance will remain accommodative, and will lead to expectations that net capital demand (reflationary cycle) should be maintained at a strong level. If support measures for corporations and households are to be expanded by the economic measures, it will also lead to expectations that a strong credit cycle will be maintained. If the credit cycle and the reflationary cycle are strong, corporate activities will be stimulated, giving rise to expectations of an upward swing in the capital investment cycle after fiscal 2022 when the coronavirus issue becomes smaller. From 2022 to 2023, there should be movements to break through the little less than 17% ceiling in capital investment against GDP, which has not been smashed since the bubble burst. This low but hard ceiling indicated that long-term growth and profit expectations for Japanese corporations remained low. Capital investment can be a driving force, and a virtuous cycle which stimulates consumption of new goods and services introduced by corporations will move the economy from a slow U-shape recovery to a strong V-shape recovery. A capital investment cycle beginning to move to break through the ceiling can create the awareness that long-term corporate growth expectations and profit expectations are finally beginning to rise. This will be a turning point after 30 years since the bubble burst. With a chance at overcoming structural deflation, there is a possibility that economic expansion and rising stock prices will accelerate.

The movement of capital accumulation due to an upward swing in the capital investment cycle can also be identified as leading to a rise in prices that will lead to overcoming structural deflation. Capital accumulation itself will lead to an expansion in supply capacity and will also induce improvement in productivity, and if aggregate demand is fixed it will be a downward pressure on prices. However, investment can induce new employment and consumption. When capital investment expands on the back of strong investment incentives, it will give rise to good things that lead to long-term enhancement of productivity, but also to things that are just popular, and it will become thread and thrum. This is because not all investments will succeed. Capital investment itself is a demand, and therefore in the short term upward pressure on prices from expansion in aggregate demand will exceed downward pressure on prices from expansion in production capacity and productivity enhancement. When investments in areas such as decarbonization where productivity will not rise in the short term goes up, short-term upward pressure on prices will become even stronger. This can be well explained when consumer prices (excluding food, energy and consumption tax) are estimated using capital accumulation and productivity enhancement. Capital accumulation induces employment, consumption demand, and sometimes triggers investments that become upward pressure on prices, but productivity enhancement improves efficiency of supply, and therefore becomes a downward pressure on prices.

Consumer prices (excluding food, energy, consumption tax)= -0.4 + 1.7 Capital Accumulation - 0.2 Improvement in Productivity + 0.8 Up Dummy (Standard Error of more than or equal to 1) - 0.7 Down Dummy (Standard Error of less than or equal to 1); R^2=0.96

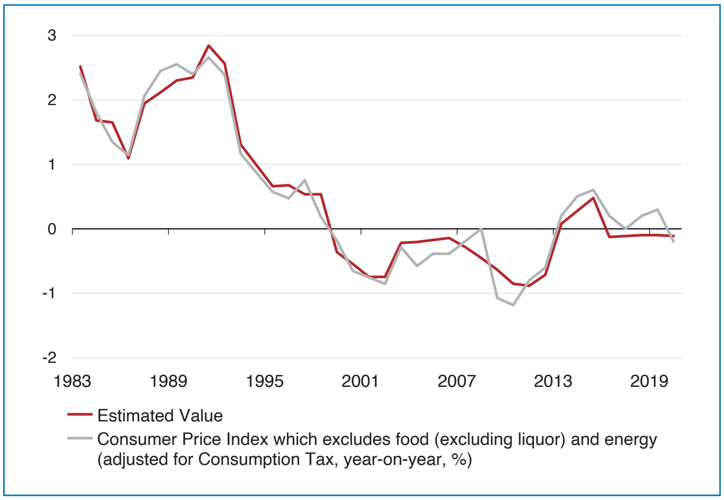
A rise in corporate savings rates signifies a slowing down of corporate activities such as deleveraging or stronger restructuring, and it can become a downward pressure on the economic cycle and deflation. A fall in corporate savings rates will push up the corporate sector's willingness to invest and weaken the destructive force of excessive savings on aggregate demand, and as corporate activities recover it will push up the economy and pressure on deflation will ease. An upswing in the capital investment cycle which leads to capital accumulation will further lower corporate savings rates and lead to movements to overcome structural deflation and subsequent recession.

In other words, in order to overcome such deflation and recession, there is a need to bring back the corporate savings rate from an abnormal positive, which has been a destructive force on aggregate demand, to a normal negative via capital investment expansion leading to capital accumulation, and wipe out all forces that destroy aggregate demand. It is important to continue stimulating corporate activities through fiscal and monetary policies of the government and the BOJ by pushing the credit cycle and the reflationary cycle up. As an economic boom and rises in prices progress, the expected inflation rate will rise, and the constant term, which was negative in the aforementioned estimation equation due to deflation expectations, will make a huge upswing to positive and the 2% price target set by the BOJ can be achieved.

Productivity enhancement due to capital investment expansion will become a downward pressure on prices in the short term. But productivity enhancement will signify a sustainable increase in real wages, leading to further improvement in corporate psychology brought on by a shift to a favorable business environment that will improve investment profits, and capital accumulation through further

CHART 5

Consumer price index & estimated values



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capital investment expansion in the future will become aggregate demand to make upward pressure on prices sustainable. Since this is an upward pressure on prices that is accompanied by productivity enhancement, prices rising to an uncontrollable level will be prevented. Productivity enhancement will become a downward pressure on prices in the short term, but future expectations for productivity enhancement (expected productivity enhancement) will accelerate capital accumulation to increase demand for capital goods, and an adequate rise in prices is also thought to continue. Prices should be able to remain steady around the BOJ's 2% target. But first it is important for the capital investment cycle to show movements to break the little less than 17% ceiling since the burst of the bubble. There is a high chance that the capital investment cycle will be pushed up as additional government fiscal expansion and tenacious monetary easing by the BOJ pushes up the credit cycle and the reflationary cycle, and this can create a rise in prices that will lead to overcoming a structural deflation and recession. Contractionary policies will lead to continued lack of investment, and by missing the crucial opportunity for future productivity enhancement the economy will have a big hole in the future as the aging society progresses without productivity enhancement *(Chart 5)*. JS

Takuji Aida has been chief economist at Okasan Securities since May 2021 and has been highly placed in various economist rankings. He has extensive experience as an economist at several financial institutions such as Société Générale Securities, UBS Securities Japan, Brevan Howard (Japan), Barclays Capital Japan, and Merrill Lynch Japan Securities.