



Corporate Cash and Deposits can be Used for Growth Investment

— 23 trillion yen in industries with investment opportunities —

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〈Summary〉

- ◆ Cash and deposits held by companies are increasing. This is because companies have been borrowing more from financial institutions to prepare for the unforeseen consequences of the coronavirus outbreak.
- ◆ As the economy normalizes, companies need to adjust their accumulated cash and deposits and debts. In this case, the desirable adjustment method for a company depends on whether there are investment opportunities. If there are no investment opportunities, it is reasonable to use cash and deposits to repay debts. On the other hand, if there are investment opportunities, it may be desirable to use cash and deposits as capital to make forward-looking investments. This makes it possible to further increase corporate value and eliminate excessive debt at the same time.
- ◆ According to estimates, nearly half of industries have maintained high rates of return on capital, and thus are judged to have "investment opportunities." These industries have been making aggressive efforts to improve management efficiency and capture new demand since before the coronavirus outbreak, and their growth expectations have not been shaken by the virus. Of the 37 trillion yen increase in cash and deposits due to COVID-19, 23 trillion yen is held by these industries with "investment opportunities," which could be used for growth investment. This situation is quite different from that during the global financial crisis, when there were no investment opportunities, and much of the cash on hand was used to repay debts.
- ◆ However, it should be noted that Japanese companies have been accumulating cash and

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deposits but have been cautious about using them for forward-looking investment even before COVID-19. In order for companies to make effective use of cash and deposits, the government needs to take steps to ease uncertainty over investment by presenting specific strategies, targets and schedules in growth fields, including digitalization and greening.

- This is a English version of “コロナ禍の現預金、成長投資に活用余地 —投資機会のある産業に 23 兆円滞留—” in JRI Research Focus (The original version is available at <https://www.jri.co.jp/MediaLibrary/file/report/researchfocus/pdf/12925.pdf>)

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1. Corporate cash and deposits are on the rise due to COVID-19

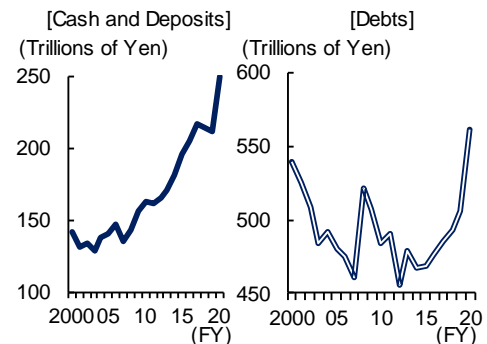
Cash and deposits held by companies are increasing. According to the Ministry of Finance's "Financial Statements Statistics of Corporations by Industry" the balance of cash and deposits at the end of fiscal 2020 reached 250 trillion yen, an increase of 37 trillion yen from the end of the previous fiscal year (Figure 1, left). The growth rate was + 17.7%, the highest in 48 years since 1972 (+ 24.8%). The increase in cash and deposits is largely due to companies' increased borrowing from financial institutions since last spring to prepare for unforeseen events caused by the coronavirus pandemic. As a matter of fact, the outstanding balance of corporate debt at the end of fiscal 20 was 560 trillion yen, an increase of 56 trillion yen from the previous fiscal year, and most of this amount is believed to have been deposited in financial institutions (right side of Figure 1).

Even in the current fiscal year, companies have been cautious in their financial management. Corporate earnings have improved from last year's slump, while domestic investment has been held back and cash reserves remain high. As a result, corporate savings are increasing along with household savings. According to the Bank of Japan's "Flow of Funds," since the latter half of last year, companies have continued to possess surplus funds (Figure 2). By category, the holding of external loans (included in "other assets") has increased, and the holding of cash and deposits has continued to increase slightly even after the sharp expansion in the April-June quarter of last year (Figure 3).

2. Different Balance-Sheet Adjustments for Investment Opportunities

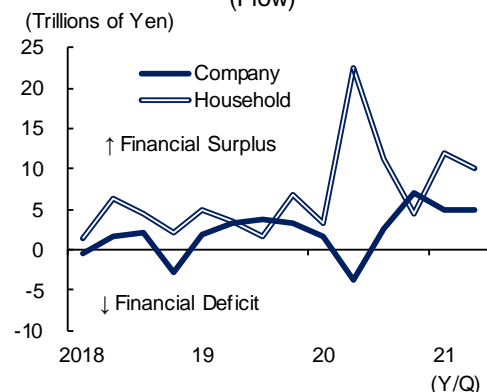
It is hoped that the spread of vaccinations will help the economy return to normal. In this case, companies will have to adjust their cash and deposits and debts that became inflated as a result of the coronavirus. Accordingly, the desirable adjustment for a company depends on whether there are investment opportunities. If there are no investment

Figure 1 Cash and Deposits and Debts of Companies



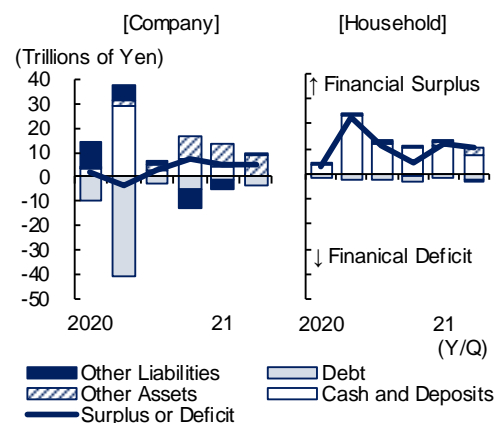
Source: Ministry of Finance, "Financial Statements Statistics of Corporations by Industry (Annual Report)"
 Note: Financial insurance and pure holding companies are excluded from all industries. Debt consists of short-term and long-term loans and bonds.

Figure 2 Financial Surplus or Deficit (Flow)



Source: Bank of Japan, "Flow of Funds"
 Note: Seasonally adjusted.

Figure 3 Breakdown of Financial Surplus or Deficit by Companies



Source: Bank of Japan, "Flow of Funds"
 Note: Seasonally adjusted.

opportunities, it is reasonable to use cash and deposits to repay debt. On the other hand, if there are investment opportunities, a desirable option may be to use cash and deposits for forward-looking investments to grow the company.

This point can be easily understood by following the framework of the optimal capital structure theory. A company with no investment opportunities can increase its corporate value by repaying its debt if its actual debt is more than the optimal debt that maximizes corporate value (Figure 4, left). On the other hand, firms with investment opportunities can increase their corporate value by making forward-looking investments while maintaining their debt unchanged (Figure 4, right). At the same time, the optimal debt ratio will also be raised, which will help to reduce excess debt. The optimal debt ratio will rise if the execution of investment increases profitability and reduces default risk. As long as this is achieved, it will be preferable to use cash on hand for investment rather than debt repayment.

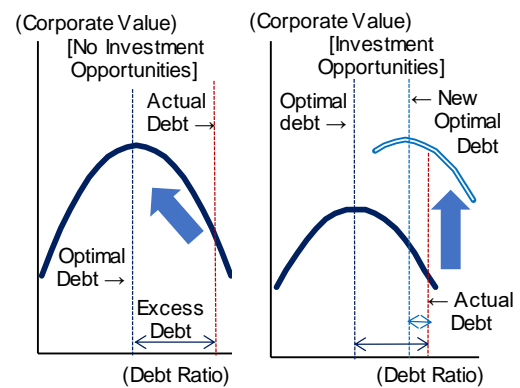
If there is excess capital rather than excess debt, the actual adjustment pattern would be more complex because the use of cash on hand is different. However, according to an estimate, corporate debt at the end of 2020 was 67 trillion yen higher than "optimal debt," indicating that many companies are saddled with excessive debt. If this excess debt adjustment can be shifted to forward-looking investment rather than debt repayment, it could boost the post-COVID-19 economy as well as medium- to long-term economic growth.

3. Nearly half of industries have investment opportunities

So how many investment opportunities do we have? In general, the presence or absence of investment opportunities is measured by the cost-effectiveness of the investment. If the expected return on an investment exceeds the cost of capital, an investment opportunity is considered. Companies can increase their corporate value by investing and accumulating capital stock. Conversely, if the expected rate of return is less than the cost of capital, the existing capital stock is excessive and it is reasonable to retire it. The ratio of the expected rate of return on capital to the cost of capital is called Tobin's q , and is a representative indicator of investment opportunity.

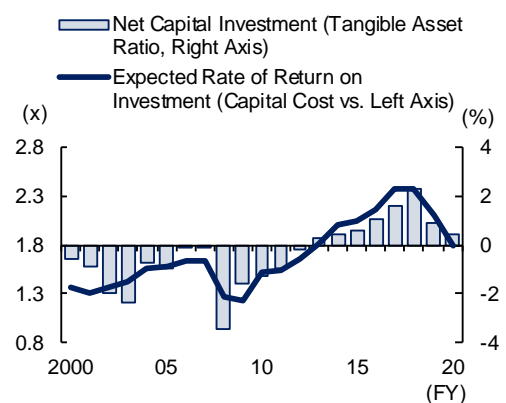
Figure 5 estimates the expected rate of return on investment (Tobin's q). The calculation includes the actual rate of return on capital and the expected rate of growth in industry demand by firms (see Appendix). Net capital investment excludes

Figure 4 Debt Ratio and Corporate Value (Conceptual Diagram)



Source: Produced by the author
 Note: Debt ratio is the ratio of debt to total assets.

Figure 5 Expected Rate of Return and Capital Investment (All Industries)



Source: Estimate by the author.
 Note: Capital investment excludes land and software. Net capital investment excludes depreciation from capital investment. The expected rate of return on investment is Tobin's q . For the estimation method, see Appendix.

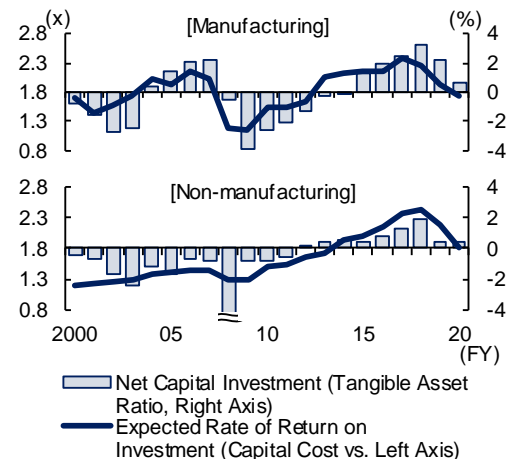
depreciation from capital investment. Positive net capital investment can be interpreted as positive capital investment, such as capacity expansion and new product introduction, as well as investment for renewal.

According to the estimation, it is clear that the more the expected return on capital exceeds the cost of capital, the more positive capital investment increases. A rule of thumb is that if the expected rate of return exceeds 1.8 times the cost, net capital investment will be positive. The expected rate of return for the most recent fiscal year of 2020 has remained at around 1.8 times the cost, although it has declined due to the coronavirus.

This trend is also seen by industry, and the expected return on capital and capital investment are strongly linked in both manufacturing and non-manufacturing industries (Figure 6). Over the past 20 years, the manufacturing industry's rate of return has cyclically fluctuated in response to economic trends. On the other hand, the profitability of the non-manufacturing sector recovered from a slump in the 2000s and steadily rose in the 2010s. This is because (1) construction and real estate industries have been reducing costs and adjusting excess facilities for a long period of time since the collapse of the bubble economy; (2) growth expectations have grown due to the progress of IT adoption and spread in information and communications industries; and (3) there have been moves to capture new demand, mainly in the transportation industry, in the fields of tourism and logistics. These efforts to improve management efficiency and capture new demand resulted in improved profitability in the non-manufacturing sector and led to aggressive capital investment prior to the coronavirus pandemic.

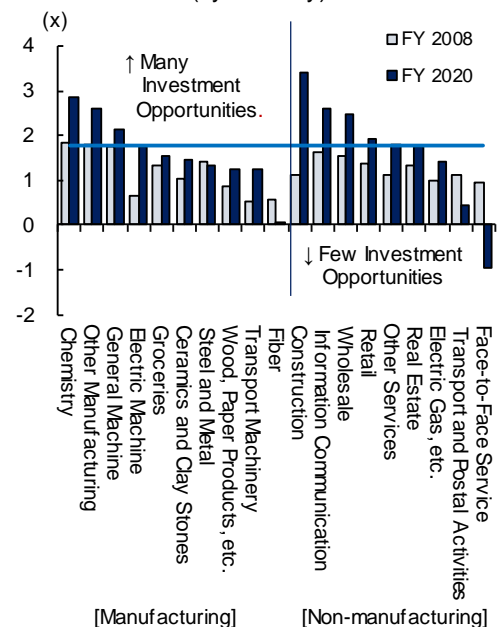
Looking at the expected rate of return for the most recent fiscal year of 2020 by industry, nearly half of industries had expected rates of return over 1.8 times the cost, indicating investment opportunities. These industries include chemical, general machinery, and non-manufacturing industries in eight industries, including construction, information and communications, wholesale, and retail (Figure 7). In view of the fact that investment opportunities did not exist in almost all industries in fiscal 2008 at the time of the global financial crisis, investment opportunities are increasing in this phase.

Figure 6 Expected Rate of Return and Capital Investment (by Industry)



Source: Estimate by the author.
 Note: Capital investment excludes land and software. Net capital investment excludes depreciation from capital investment. The expected rate of return on investment is Tobin's q . For the estimation method, see Appendix.

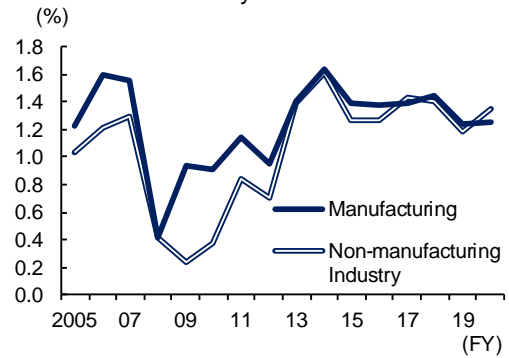
Figure 7 Expected Rate of Return (by Industry)



Source: Estimate by the author.
 Note: Expected returns are relative to the cost of capital. For the estimation method, see Appendix. Face-to-face services include lodging, eating and drinking, lifestyle services, and entertainment. The horizontal line is the threshold for investment opportunities.

One of the reasons why investment opportunities have not been lost despite worsening performance due to COVID-19 is that corporate growth expectations have not collapsed. The expected growth rate of industry demand over the next five years has been maintained at the low 1% level in both manufacturing and non-manufacturing industries, remaining almost unchanged from before coronavirus in many industries (Figure 8). This may reflect the perception that the negative effects of coronavirus are temporary and that new demand after the pandemic will boost earnings.

Figure 8 Expected Growth Rate of Industry Demand

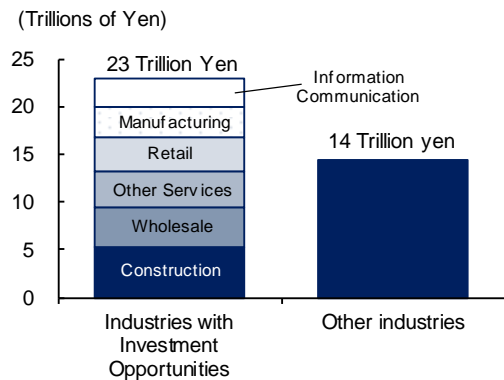


Source: Cabinet Office, "Annual Survey of Corporate Behavior"
 Note: Listed companies. Nominal growth rate forecast for the next five years.

4. The source of growth investment is 23 trillion yen, and there are also problems in utilizing cash and deposits.

In this situation, nearly half of industries have investment opportunities, and the use of cash and deposits can improve corporate value and eliminate excessive debt. This situation is quite different from the global financial crisis, when there were few investment opportunities and cash on hand was mostly used to repay debts. It has been pointed out that at the time of the Lehman Brothers collapse, debt adjustment may have delayed forward-looking investment and reduced growth potential. In this phase, it is important to make effective use of cash and deposits so as not to repeat what happened during the global financial crisis.

Figure 9 Increase in Cash and Deposits



Source: Estimate by the author.
 Note: The increase in cash is the change from FY 2019 to FY 2020. The manufacturing industry consists of three industries: chemical, general machinery, and other manufacturing.

In this regard, of the 40 trillion yen in cash and deposits that increased due to the coronavirus, 23 trillion yen is held by 8 industries that have investment opportunities (Figure 9). Moreover, there are signs of an increase in capital investment in these industries this fiscal year. According to the Bank of Japan's "Tankan," capital investment is planned to significantly exceed pre-coronavirus levels in 8 industries that have investment opportunities (left, Figure 10). In fact, according to the Ministry of Finance's "Financial Statements Statistics of Corporations by Industry," capital investment in these industries has already started to increase since the latter half of last year, and has continued to increase from April through June this year (Figure 10, right). According to a survey by the Development Bank of Japan, these industries are planning forward-looking projects such as the manufacture of high-performance products for automobiles, electronic materials, and pharmaceuticals, as well as digital responses at retail stores. Cash and deposits are expected to further boost such investment.

It should be noted, however, that Japanese companies have been accumulating cash and deposits since before

COVID-19 but have been cautious about using them for forward-looking investment. It has been pointed out that there is a growing tendency for banks to hold reserve funds as a result of their experience of facing severe funding conditions repeatedly since the collapse of the bubble economy in the beginning of 1990s. In addition, it has been noted that the weak management discipline of Japanese companies has resulted in their increased cash holdings and reduced profitability (Kato et al. [2017], etc.). Moreover, although Oku et al. (2018) cite preparation for future investment opportunities as a major motivation for holding cash and deposits, Fukuda et al. (2018) contend that despite the existence of potential investment opportunities in the past, there was a high degree of uncertainty surrounding the growth potential of the domestic market, and as a result, companies were unable to utilize cash and deposits for investment.

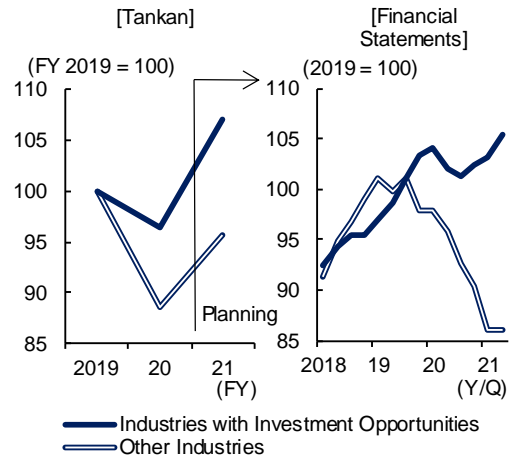
In light of these points, it is important for companies to strengthen their relationships with financial institutions and secure means of raising funds in the event of an emergency. It is also necessary to constantly review the nature of corporate governance and realize management that emphasizes profitability and growth. In addition, it is essential to ease the uncertainty surrounding investment. In particular, investment in digitization and greening has recently become an issue. Although the government has announced policies related to these areas, specific measures, such as computerization of the administrative sector and decarbonization of the power sector, are limited to specific industries and sectors. In order to induce growth investment by many companies, it is necessary to present specific strategies, targets, and paths for the entire industry and to make efforts to mitigate policy uncertainty.

Appendix: Expected return on investment

The calculation of the expected rate of return on investment is based on Tobin's marginal q . Tobin's marginal q is defined as the ratio of the "discounted present value of the return generated by an additional investment" to the "purchase price of the investment product." This can also be expressed as the ratio of the expected rate of return on capital to the cost of capital. The formula is as follows:

$$q_t = \frac{1 - \tau_t}{(1 - z_t)p_t^k} \sum_{i=0}^{\infty} \left[\left(\frac{1 - \delta_t}{1 + r_t} \right)^i E_t[\pi_{t+i}] \right], \quad (1)$$

Figure 10 Capital Investment



Source: Bank of Japan, "Tankan," Ministry of Finance, "Financial Statements Statistics of Corporations by Industry (Quarterly)."
 Note: Industries with investment opportunities are the eight industries shown in Chart 9 (excluding other services in the Tankan). The Tankan's fiscal 21 plan was surveyed in September. Tankan capital investment includes software and R & D and excludes land. Capital expenditures in the corporate quarterly report include land, construction in progress, and software. Posterior four-period moving average.

where q is the expected rate of return on investment, π is the marginal rate of return on capital stock, p^k is the price of investment goods, δ is the rate of capital depletion, r is the discount rate, τ is the effective corporate and business tax rate, and z is the present discounted value of corporate taxes that can be saved as depreciation of investment expenditures. The following approximate equation is obtained by rewriting equation (1).

$$q_t = \frac{(1 - \tau_t)(1 + r_t)}{(1 - z_t)(r_t + \delta_t)} \frac{1}{\left(1 - \frac{1 - \delta_t}{1 + r_t} \rho_t\right)} \left[\frac{p_t Y_t}{p_t^k K_t} \right], \quad (2)$$

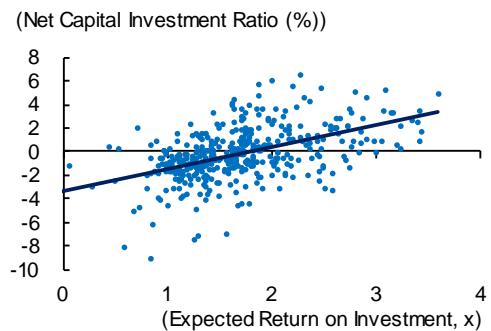
where pY is the nominal return, $p^k K$ is the nominal capital stock, and ρ is the expected growth rate of nominal return. The marginal rate of return on capital stock is defined as the nominal return divided by the capital stock, and the future marginal rate of return is assumed to be the current marginal rate of return multiplied by the expected growth rate of return. z was calculated according to the following equation.

$$z_t = \tau_t \sum_{i=0}^{\infty} \frac{1}{(1 + r_t)^i} \delta_t (1 - \delta_t) = \frac{\tau_t (1 + r_t) \delta_t}{r_t + \delta_t}. \quad (3)$$

The data for pY are the sum of operating income and depreciation expenses, $p^k K$ is tangible fixed assets, δ is depreciation expenses divided by tangible fixed assets, r is interest expenses divided by liabilities (the sum of long- and short-term borrowings and corporate bonds), and τ is corporate, residential, and business taxes divided by operating income. The source of these data is the Ministry of Finance's "Financial Statements Statistics of Corporations by Industry (Annual Report)." We also used the nominal growth rate of industry demand over the next five years from the Cabinet Office's "Annual Survey of Corporate Behavior." In recent years, investment in intangible assets and human capital has become an important factor in corporate value, but the estimation here is limited to tangible fixed assets due to data constraints. In the industry-by-industry calculations used in Figures 7, 9, and 10, some office services such as academic research and specialized services with high expected return on investment and petroleum and coal products with volatile returns were excluded.

Figure 11 shows the relationship between the expected rate of return on investment and net capital investment by industry and time point. The number of industries totals 19 and the period is from FY 2000 to FY 2020. There is a clear positive relationship between the two. A rule of thumb is that if the expected rate of return on investment exceeds 1.8 times the cost of capital, net capital investment will be positive.

Figure 11 Expected Rate of Return and Capital Investment (by Industry)



Source: Estimate by the author.
 Note: Net capital investment ratio is the ratio to tangible fixed assets. Net capital investment excludes depreciation from capital investment. The expected rate of return on investment represents Tobin's q . The number of data points is 399 (19 industries from FY 2000 to FY 2020).

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